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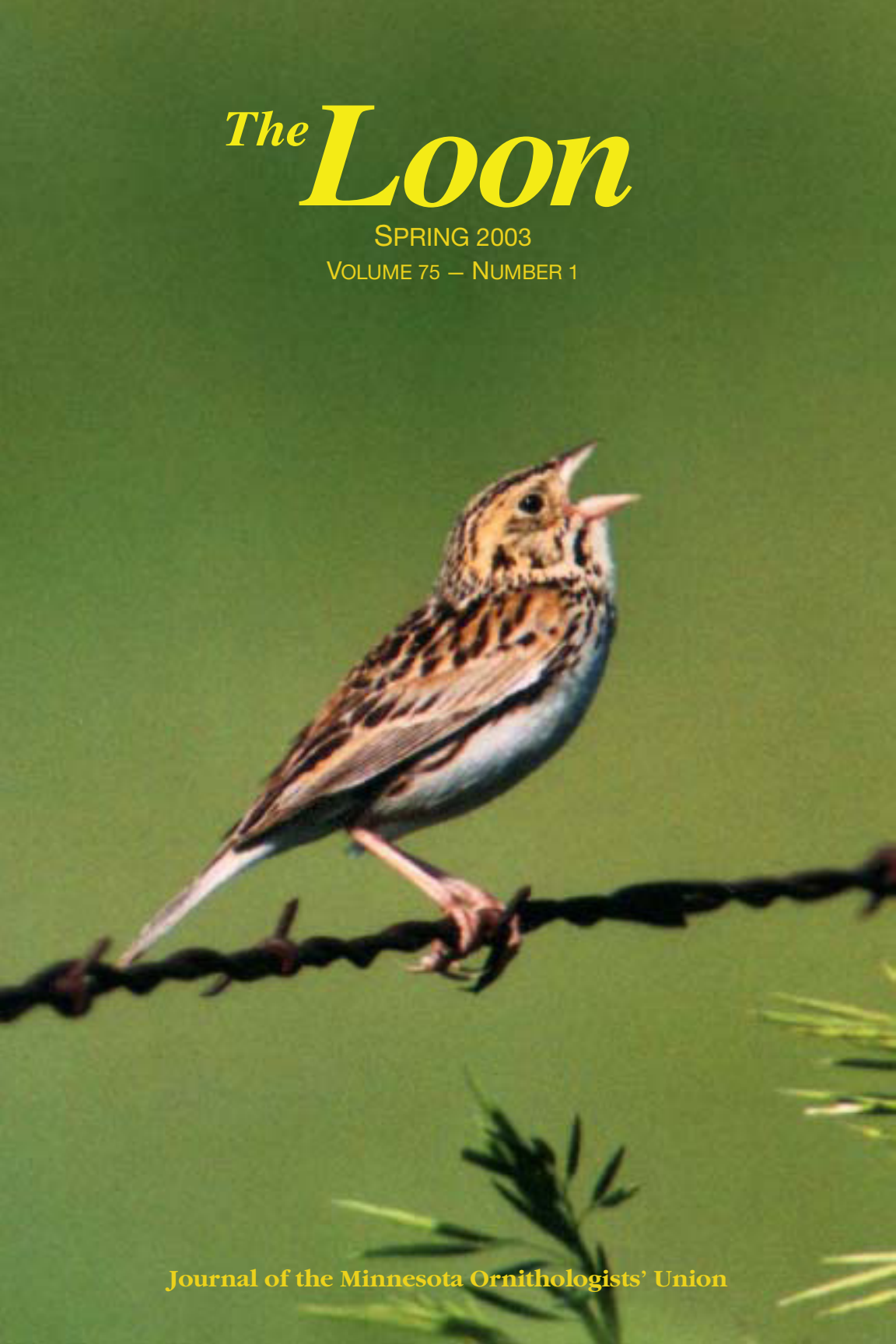

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The Northern Bobwhite in Minnesota

Anthony X. Hertzel

The Northern Bobwhite (*Colinus virginianus*) was a familiar species across the southern half of Minnesota in the early 1900s. Changes in habitat due to modern farming practices, however, brought about a severe decline in the species' numbers and its range began to contract southward. By the 1960s, it could be found only in the southeastern corner of the state. The decline has continued to the point where it is now so scarce that the natural occurrence of the Northern Bobwhite in the state must be questioned. Evidence suggests, in fact, that the population may be approaching zero.

Historical Context

The Northern Bobwhite (or "quail") is probably a recent addition to Minnesota's avifauna, most likely arriving with European settlers in the mid-1800s. Early explorers to Minnesota, such as Pike, Long, Schoolcraft, and others, made no mention of it in their extensive journals. Because these men were particularly interested in game birds, that they apparently did not find bobwhite here is a good indication that at the time there were none to be found. References to bobwhite being only a recent arrival to Minnesota can be found in the ornithological literature as far back as 1929 (Swanson 1929). In Iowa, quail were quite scarce before 1900, especially in the northern part of the state (Anderson 1907), and at the same time in Wisconsin, they were found only in the southern and central regions (Kumlien and Hollister 1903).

The situation for bobwhite began to improve in the late 1800s when large numbers of settlers moved into the Upper Midwest and brought substantial changes to the landscape. Small family farms meant the creation of hedgerows, windbreaks, and pastures, ideal habitat for the species (Chesness 1964; Dinsmore 1994), and the bobwhite began expanding its range northward until eventually it could be found as far north as Stearns County with a few coveys found even as far northwest Otter Tail County (Roberts 1932).

However, the boom was short-lived. By the turn of the century, farming practices began to change. As farms became larger with fewer hedgerows and pastures, the Northern Bobwhite began to decline. Its downward trend can be seen in early Twentieth Century harvest estimates over successive ten-year periods (Chesness 1964):

1919–1928: 8,400
1929–1938: 5,700
1939–1948: 3,800
1949–1958: 3,200

By 1946, the decline of the Northern Bobwhite in Minnesota had become very apparent when a survey by the Minnesota Division of Fish and Game (MDF&G) revealed that only a "limited number" of bobwhite existed in the southeastern counties (Chesness 1964). In 1950, a standardized census by the MDF&G in the counties of Wabasha, Winona, Houston, and Fillmore produced no birds. Releases of quail by the MDF&G were ineffective in stabilizing the population and the program was terminated in 1952. By the early 1960s, the average number of bobwhite found during the MDF&G annual roadside counts had dwindled to four (Chesness 1964).

Current Minnesota Status

Generally, when a population begins to decline, it is often first noted at the fringes of its range where the species is least populous. For the Northern Bobwhite, this fringe currently extends just into southeastern Minnesota. For many years now the state's population — if it is still extant — has been extremely small. In the last ten years, reports to the MOU have averaged about one bird per year.

The Northern Bobwhite does not appear on any Minnesota Breeding Bird Survey (BBS) compilation, and has not been included on the North American BBS list of species found nesting in Minnesota since that census began in 1966.

The Natural Resources Research Institute (NRRI) of Duluth did numerous breeding bird surveys in southeastern Minnesota between 1995 and 2001, but no bobwhite were encountered (Jim Lind, NRRI, pers. com.).

The Minnesota County Biological Survey (MCBS) investigated Goodhue and Rice counties in 1990, Houston and Winona counties in 1993, and Fillmore, Olmsted, and Wabasha counties in 1996. They found no Northern Bobwhite (Steve Stucker, MCBS, pers. com.).

A few state Christmas Bird Counts (CBC) have reported Northern Bobwhite on occasion, but it is such a rare event that it can hardly be argued that these observations indicate a healthy, viable population (Table 1). Within the species' traditional range in the Southeast, bobwhite have been recorded on just six CBCs at widely spaced intervals since 1901.

Elsewhere, bobwhite have been reported on CBCs from scattered locations around the southern half of the state, most recently in 1984 when the Northeast St. Paul CBC reported six. These were almost certainly escaped birds, by then being far out of the species' accepted range.

Introduction and Release Efforts

The actual status of Northern Bobwhite in Minnesota is complicated by continued releases by hunting clubs, game farms, local farmers, and other sources. The use, sale, and release of these birds are neither tracked nor regulated, and little information is available from state agencies.

Most Northern Bobwhite reported in Minnesota during the past 25 years are probably released or escaped birds, such as this rare rufous-morph individual photographed on 16 January 2003 by Bob and Sandie Donner in Eagan, Dakota County.

Releases of bobwhite have occurred in Minnesota on a nearly continous basis for more than 150 years. As early as 1837, Franklin Steele released an unknown quantity of bobwhite near Fort Snelling in Hennepin County (Stevens 1903). In 1845, Steele and General Henry Hastings Sibley released additional birds near there (Minneapolis Daily Tribune 1869). Quail releases by hunting clubs and state agencies soon became a common occurrence in the southern parts of the state (Swanson 1929; Chesness 1964). A similar introduction program was begun in Wisconsin in 1884 (Robbins 1991).

Introductions continue today from a variety of sources. The ultimate number of quail released in Minnesota each year

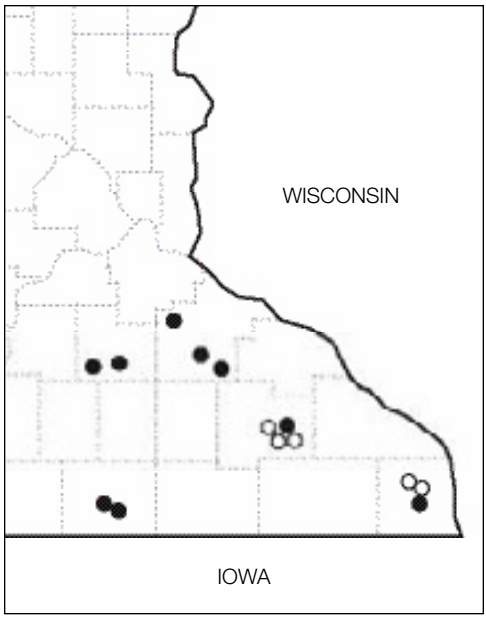

Figure 1. Locations of registered game farms and release sites of Northern Bobwhite in southeastern Minnesota, 2002. Key: ● = game farm, ○ = private release site.

probably numbers in the thousands. A minimum of 75 game farms in the state raise, distribute, or release Northern Bobwhite (MN DNR 2002 Annual Report), and numerous private citizens and farmers raise hundreds if not thousands more.

Bobwhite are often used at bird dog trials. Field trials for dogs routinely involve putting bobwhites out in a field for the dogs to point. Most birds are never picked up, so there is a continual supply of pen-raised quail being liberated across most of the state from this source alone. Unless one knows about them, it may appear for a time that bobwhite have colonized an area. In 2002, a private breeder in Olmsted County began a program of annual releases of bobwhite into the wild (Prinsen 2002). Releases occurred in Olmsted and Houston counties (Figure 1). Of the 75 licensed game farms known to be holding Northern Bobwhite in 2002, 9 are situated in the southeastern part of the state (Figure 1). An additional 13 game farms can be found in the immediate surrounding counties.

Releasing pen-raised birds is reportedly an ineffective method of increasing bobwhite densities (Hellickson and Radomski 1999). On average, 50% of pen-raised quail die within 8 days of release and 75–90% die after 20–25 weeks (Hellickson and Radomski 1999). This likely explains how enthusiasts can release hundreds of Northern Bobwhite into the environment and yet have so few ever relocated. Considering the steep decline in wild birds over the past century, it may be that recently released pen-raised quail are the only source of the few reports we now receive.

Releases may even be detrimental to the bobwhite and could possibly have a negative impact on the species' hardiness in some areas (Swanson 1929). Imported birds are often of a southern stock and are poorly equipped to survive a severe Minnesota winter. If these birds are somehow able to breed with local quail, the resulting offspring may be less hardy.

In 1976, the newly formed Minnesota Quail Society (now Minnesota Wings) began a supplemental feeding program in southeastern Minnesota (Tucker 1978). Stations were set up in Winona, Houston, Fillmore, Olmsted, Scott, and Benton counties and feeders were filled at regular intervals throughout the winter. Early indications were that the effort may have had some success, but 25 years later the species continues its decline and feeding programs have been scaled back.

Impediments to Survival

Northern Bobwhite are subject to numerous pressures that greatly affect their population and abundance. Weather, predators, hunting, and many other factors have been cited as possible causes for the species' decline, but without question these influences pale in importance to loss of habitat. The primary cause of habitat loss is a change in farming practic-

Location	Year																								
	06	08	14	15	16	23	26	27	28	30	31	32	34	35	39	41	56	57	61	64	66	68	70	71	83	84	00
Dassel							22																				
Eagle Bend			12																								
St. Cloud													5														
Afton																		12					CW			CW	
Cambridge				15																							
Minneapolis (Kenwood)	5																										
Minneapolis (Harriet)		10																									
Minneapolis (West)							2								8												
Minneapolis (Mississippi)							14		10																		
Minneapolis (Fort Snelling)								2	22	7		4					15										
Shakopee										6																	
St. Paul (Como Park)							3		1	16	6																
St. Paul (Northeast)																			1	2				1		6	
St. Paul (Highland Park)												11															
St. Paul (South)								CW		15	7	9	37														
Fairmont																15											
Faribault																					6						
St. Peter					25																						
LaCrosse-LaCrescent																											1
Lanesboro														CW													
Plainview																	18	12									
Red Wing	16					1																					
Wabasha																											1
Whitewater																			1								
Winona																						18	16	CW	CW		

Table 1. All Minnesota Christmas Bird Counts reporting Northern Bobwhite, 1906–2000. CW = Count Week.

es, but increased forest cover, new roads, and human encroachment are also important elements. Because they have such high annual mortality rates, bobwhite require large expanses of good habitat in order to achieve the high nesting success necessary for a viable population.

In wild birds, annual bobwhite mortality varies from 70–95% (average about 80%) (Hellickson and Radomski 1999; Brennan 1999), and average life expectancy is only 8.5 months (Hellickson and Radomski 1999). Because of this, hundreds of birds are necessary to sustain a population. It takes an estimated 800 bobwhite to maintain a viable population in any one area (Guthery *et al.* 2000). This number, derived from mathematical models, represents a minimum population size at the lowest abundance level of the year (generally late winter). In addition, a minimum of 5,000 acres of appropriate habitat is necessary to host this population (Guthery *et al.* 2000). With such a high annual mortality, it would therefore be necessary by the end of the breeding season to have at least 4,000 birds present in any one area to have the minimum 800 birds survive to the following breeding season. Nowhere in Minnesota have such numbers been reported in the past fifty years or more, strongly suggesting we have no viable population.

Across the bobwhite's range, regional persistence of a population is subject to metapopulation processes. This involves a large, loosely associated group of small, somewhat isolated populations which persist in a balance between local extinction and re-colonization (Levins 1969, 1970). In a stable regional population, local quail colonies are routinely wiped out by natural causes, only to be re-colonized by neighboring birds. At the northern reaches of the species' range, sources of re-population must come from the south. This might be a problem when the northernmost population is separated from its nearest southern neighbor colony by a large interstate freeway. It may be that these large east/west highways hinder the Northern Bobwhite's ability to maintain its

population at the northern fringes.

Summary

The Northern Bobwhite is nearly extirpated as a breeding species in Minnesota, though it is possible that it may yet persist in very small numbers in the extreme southeastern parts of the state. At any one time, however, released or escaped birds almost certainly greatly outnumber any wild population. There are no recent records of bobwhite from surveys done by the Natural Resources Research Institute, the U.S.G.S. Breeding Bird Survey, or the Minnesota DNR County Biological Survey. Very few Christmas Bird Counts have reported Northern Bobwhite over the years, and none that were likely wild birds in the past twenty years. The collective evidence of several decades of survey work strongly indicates that there are insufficient numbers of bobwhite to constitute a viable population. It is likely that Minnesota has no self-sustaining Northern Bobwhite population, and unless major changes take place in the way the state's lands are managed, it never will.

Acknowledgments

Thanks to Clifford Shackelford for information and direction on Northern Bobwhite research being done in Texas and elsewhere. Jim Dinsmore provided me with data, both historical and current, from Iowa. Harrison Tordoff and Peder Svingen reviewed earlier drafts of this paper. Roger Schroeder compiled the CBC data. Virginia Wright-Peterson provided records of released birds in southeastern Minnesota for the year 2002.

Literature Cited

Anderson, Rudolph M. 1907. The Birds of Iowa. In: *Proceedings of the Davenport Academy of Sciences* 11:125–417.

Brennan, L. A. 1999. Northern Bobwhite (*Colinus virginianus*). *In:* The Birds of North America, No. 397 (A. Poole and F. Gill, eds.). The Birds of North America, Inc. Philadelphia, PA.

Chesness, Robert A. 1964. Minnesota's Bobwhite Quail. ***The Loon*** 36:60–62.

Dinsmore, James J. 1994. A Country So Full of Game; The story of wildlife in Iowa. University of Iowa Press. Iowa City. 249 pp.

Guthery, F. S., M. J. Peterson, and R. R. George. 2000. Viability of Northern Bobwhite populations. *Journal of Wildlife Management* 64:646–662.

Hellickson, Mickey, and Andrew Radomski. 1999. Bobwhites of the Wild Horse Desert: Status of Our Knowledge. Wildlife Management Bulletin of the Caesar Kleberg Wildlife Research Institute. Texas A&M University-Kingsville. Management Bulletin No. 4.

Kumlien, L., and N. Hollister. 1903. The Birds of Wisconsin. In: *The Bulletin of the Wisconsin Natural History Society* 3(1-3):1–143.

Levins, R. 1969. Some demographic and genetic consequences of environmental heterogeneity for biological control. *Bulletin of the Entomological Society of America* 15:237–240.

Levins, R. 1970. Extinction. Pages 77–107 *In:* M. Gerstenhaber (ed.) Some Mathematical Problems in Biology. American Mathematical Society. Providence, Rhode Island.

Minneapolis Daily Tribune. 1869. Quails in Minnesota. 5 March 1869, page 4.

Prinsen, Bonnie. 2002. A bird in the hand is worth two in the bush. Fillmore County Journal, 12 August 2002.

Robbins, Samuel D. 1991. *Wisconsin Birdlife*. University of Wisconsin Press. Madison. 702 pp.

Roberts, Thomas S. 1932. *Birds in Minnesota*, Volume 1. Univeristy of Minnesota Press. Minneapolis. 691 pp.

Stevens, John H. 1903. Personal *Recollections of Minnesota and Its People, and Early History of Minneapolis*. Tribune Printing Co. Minneapolis. 433 pp.

Swanson, Gustav. 1929. The Quail in Minnesota. *The Flicker* 1(5):1–2.

Tucker, Thurman G. 1978. Bring back the Bobwhite. *Minnesota Volunteer* 41: 24–31.

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Observations of Nesting Northern Hawk Owls in Minnesota

Dave Grossheusch

Northern Hawk Owls (*Surnia ulula*) have been poorly studied in North America (Kertell 1986, Rohner *et al.* 1995, Duncan and Duncan 1998), with a marked lack of data available on breeding biology, winter ecology, and population status. This may be in part because much of the hawk owl's range extends through remote areas and they occur in low densities (Duncan and Harris 1997, Newton 1976). The breeding/wintering range of hawk owls extends throughout the boreal forest and muskeg regions of Alaska to Newfoundland, barely reaching the southern Canadian border across the Upper Midwest and Northeastern U.S. Duncan and Duncan (1998) state that hawk owls are unevenly distributed throughout their breeding/wintering range and that although generally resident, they tend to wander irregularly south in the winter.

Occasionally, large numbers of hawk owls are found south of their range during the winter, and when such an event occurs, it is regarded as an "invasion." It is thought that invasions may result from successful reproduction followed by severe winter weather and reduced prey abundances (Duncan and Duncan 1998). In Minnesota, Northern Hawk Owls have been observed in virtually every winter, albeit in small numbers most years. However, notable invasions have been documented in 1962–1963, 1990–1991, 1991–1992, 1995–1996, 1996–1997, and 2000–2001. Also, there is evidence to indicate substantial invasions occurred in the late 1800s and early 1900s (Eckert 1992).

The majority of sightings from documented invasions were from the Northeast and North-central regions in Minnesota. However, hawk owls have been reported as far south as Dakota, Washington, Ramsey, and Wabasha (November 1962 – January 1963) counties, and as far west as Kittson, Marshall, and Polk counties. The 2000–2001 invasion of hawk owls seemed to be limited to the northeastern and north-central regions of Minnesota (Svingen *et al.* 2001). Throughout the fall and winter seasons, a record total of 190 hawk owls was observed, with most sightings coming from St. Louis, Lake, and Lake of the Woods counties. The second largest invasion occurred in 1991–1992, with 159 individuals tallied. The 1991–1992 invasion of hawk owls seemed to be evenly distributed throughout the northern third of the state, with exceptional totals in Koochiching, Aitkin, and St. Louis counties (Eckert 1992).

Currently, few nesting records exist outside of the "typical" breeding range of hawk owls, although historically, following an invasion, hawk owls have been observed during the late spring/early summer and occasionally remained to nest south of their typical breeding range (Smith 1970, Janssen 1987, Duncan and Duncan 1998). Prior to 2001, only eight nest records existed for hawk owls in Minnesota. Five of the eight nest records occurred following an invasion (Table 1). Additionally, 14 summer sightings of hawk owls have been documented for Minnesota, with 10 of those records following an invasion.

Consequently, it was no surprise that nests were located following the 2000–2001 record invasion of hawk owls in Minnesota. Three nests were found and hawk owls were confirmed breeding at three additional locations. The first nest (nest A) was found prior to incubation on 22 April off Lake County Road 2. The second nest (nest B) was found during

Northern Hawk Owl nest site B, May 2002, Gunflint Trail, Cook County.

the nestling stage on 3 June along the Gunflint Trail in Cook County. The third nest (nest C) was found during the nestling stage on 7 June near the Gunflint Pines Resort in Cook County. The three remaining confirmed hawk owl breeding records came from Koochiching, St. Louis, and Lake counties. On 2 June adults were observed carrying prey and nestlings were heard begging for food from an area near Little Fork in Koochiching County. The actual nest was not located at this site. On 10 July an adult was observed feeding a recently fledged young in the Sax-Zim Bog area in St. Louis County. On 20 June an adult and three recently fledged young were observed near Whitefish Lake in Lake County.

Direct observations were made following the discovery of nest A in Lake County. Observation periods of ten minutes to nearly seven hours were made between 22 April and 16 June; however, the majority (>90%) of observations were made between 24 May and 16 June. The nest was observed on 16 days for a total of 35 hours. To avoid an activity measurement bias, observations were staggered throughout the day between 24 May and 16 June. Observations were made from a vehicle ~100m from the nest, aided by a 20x spotting scope and 8x binoculars. The nest tree was climbed to inspect, measure, and band the nestlings on 3 and 10 June. Additionally, two hours of observation were made at nest B in Cook County. After the young had fledged from nests A and B, the nest site habitat was measured using a modified James and Shugart (1970) method.

Hunting Behavior

All foraging observations were made at nest A. The male was observed hunting near the nest during the late incubation and early brood nest periods. After the end of the early brood period, the male was not observed hunting near the nest. Prior to the late incubation period, it is unknown if the male hunted near the nest due to the lack of observations. During the late incubation and early brood period, the male remained 30–200m from the nest during eight observed prey attempts,

Table 1: Confirmed Northern Hawk Owl breeding records for Minnesota prior to 2001.

Year	Nest found following "Invasion" Year	Nest found in "Non-Invasion" Year	Breeding confirmed by:
1884	Norman County (Roberts 1932)		Nest found with eggs
1906	Roseau County (Roberts 1932)		Nest found with eggs
1963	St. Louis County (Strnad 1963)		6 birds observed near Kelsey
1980		Aitkin County (Green 1981)	Nest found that fledged 7 young
1980		Lake of the Woods County (Kehoe 1982)	Nest found that fledged 6-7 young
1987	Roseau County (Lane and Duncan 1987)		Nest found that fledged 5 young
1988		Lake County (Weins 1989)	2 adults and 3 short-talled young observed
1992	St. Louis County (Wilson 1993)		Nest found that fledged 2 young

Table 2: Frequency of prey deliveries at nest A in 2001.

Date	# hrs. obs.	# Red squirrels	# Unk. vole species	# Unk. small mammals	# Unk. prey	# prey/hr.
24 May	6.8 hrs. (9:40 A.M. – 4:30 P.M.)	1	3	1	–	.74
25 May	5 hrs. (7:02 A.M. – 12:02 P.M.)	–	3	1	–	.8
28 May	1.1 hrs. (1:52 P.M. – 3:00 P.M.)	–	2	–	–	1.8
29 May	5.6 hrs. (1:15 P.M. – 6:50 P.M.)	–	2	1	–	.54
5 June	5.3 (6:25 A.M. – 11:45 A.M.)	–	–	1	2	.56
7 June	3.5 hrs. (5:35 P.M. – 9:05 P.M.)	–	2	1	–	.86
10 June	1.1 (5:20 P.M. – 6:26 P.M.)	–	1	2	–	2.7
16 June	2.25 hrs. (11:11 A.M. – 1:28 P.M.)	–	1	–	–	.44

Table 3: Comparison of Northern Hawk Owl nest sites found in 2001 and 2002.

Nest site	Date found	Tree species	Tree dbh (cm)	Nest Height (m)	Location in tree	# of Young
2001-A	22 April	Aspen	35.5 cm	12	Broken off top	5
2001-B	3 June	Aspen	33.5 cm	8	Cavity in side of tree	1+
2001-C	7 June	Aspen			Broken off top	2+
2002-1	15 May	Aspen	61.85 cm	10	Broken off top	2+
2002-2	1 June	Paper birch	41.1 cm	8	Broken off top	2+

Note: Based on the description received for the 2001 nest C, it is likely that the 2002-1 nest was in the same tree.

with a 0.5 success rate. The male perched atop a snag or tree 1.5–12m high during all hunting observations; strike distance varied from ~10–70m. When hunting, the male was often observed leaning forward and peering toward the ground giving a "chatter" vocalization (see Vocalization section).

Of the eight observed prey attempts, the male used three distinctly different hunting techniques. The most commonly used technique (n=5) was the "direct stoop"; the male intensely focused on prey from the perch, went off perch (depending on strike distance, male flapped wings), wings tucked in stoop and went directly to prey location. Secondly (n=2), the "stoop-hover" approach; the male went directly from perch into stoop toward prey, on approach male pulled up and hovered above location of prey before going down to ground. Thirdly (n=1), the "ladder" approach; male focused on prey, dropped from taller to shorter perch as he approached prey (used three different perches), and when ~5m from the prey male made a short stoop to the ground.

Food Habits

A total of 24 prey items was identified during direct observations at nest A. Identification of prey was based on the pelage color, length of prey, tail length, and shape of prey item. Only one prey item was identified to species, a red squirrel (*Tamiasciurus hudsonicus*). The remaining prey items were identified as either unknown vole spp., unknown small mammal, or unknown prey. Fourteen of the 23 prey items were unknown vole spp., 7 were unknown small mammals and 2 were unknown prey items (Table 2). The fairly large presence of voles in the diet of hawk owls at nest A is similar to what other researchers have found. Mikkola (1972) found that microtine voles were an important food source in the diet of hawk owls in Finland, Norway and Russia, contributing 94.8, 98.3, and 97.7%, respectively.

According to Smith (1970), Lane and Duncan (1987), and Duncan and Duncan (1998), microtine voles are also an important prey item in the diet of North American hawk owls. However, Rohner *et al.* (1995) found that although voles comprised a greater proportion of prey items, snowshoe hares (*Lepus americanus*) contributed a greater amount of prey biomass compared to voles in the diet of hawk owls in Canada. Rohner *et al.* (1995) suggest that more data are needed from other studies throughout North America to determine the geographical variation in the diet of hawk owls. Unfortunately, there are not enough data from nest A to make any conclusions regarding the biomass significance of prey in this region. It is evident that further study is needed to understand how local prey densities influence the hawk owl's diet and affect nest site selection.

Nest Chronology

Nest chronology was determined for nest A. This was ascertained by backdating from estimated nestling ages. Nestling ages were estimated from wing measurements taken on 10 June and using the formula wing length = 13 + 5.6 x age (Rohner *et al.* 1995). The five young in nest A were calculated to be 9–14 days old. Based on that estimate, the young hatched between 27 and 31 May. Assuming a 25–30 day incubation period beginning with the first egg (Cramp 1985), the first egg was laid between 26 and 30 April. One young was observed perching just outside the nest on 16 June. Three fledged young were observed near the nest on 19 June. Young typically fledge between 3–5 weeks (Mikkola 1983).

Nest Behavior

Based on 14 prey deliveries observed from 24–29 May, the female received only one prey item away from the nest. The remaining 13 prey deliveries were either transferred at the nest or cached after the male went to the nest and the female did not accept the prey item. Generally, the male brought the same prey item to the nest more than one time before caching or leaving it at the nest. Of the 13 prey deliveries to the nest, 5 prey items were cached and 8 were accepted. Of the eight

accepted items, two were eaten by the female, two were fed to the nestlings, one was split between the nestlings and the female, and on three occasions it is unknown what happened with the prey item. The male carried each prey item that was delivered to the nest in his beak. However, when the male caught prey he would fly to another perch with the prey in his talons, consume the head, and then transfer the prey to his beak before going to the nest. An average of 0.76 prey items were delivered per hour 24–29 May (Table 2).

During observations from 5–16 June, ten prey deliveries were observed. On four occasions there was a prey transfer away from the nest between the male and female, on four occasions a prey item was dropped off at the nest by an adult, and twice the female brought prey to the nest but it was unknown if a transfer occurred. The female was observed feeding nestlings six of the ten prey items. On three of ten occasions, an adult delivered a prey item to the nest in its talons. An average of 0.82 prey items was delivered per hour from 5–16 June (Table 2). During observations made between 28 May aand 5 June, the female rarely left the nest while brooding young and often received prey at the nest. On 7 June and thereafter, the female spent little to no time brooding the young, but generally remained near the nest and often perched within 25–150m of the nest. The male often perched within 50–100m of the nest when not hunting during the late incubation and early brood period.

Nest Defense and other Interactions

Two interactions were observed with potential nest predators. On 25 May, a Common Raven (*Corvus corax*) was observed flying west towards the hawk owl nest. When the raven was ~200m from the hawk owl nest, the male hawk owl, which had perched ~50–70m from the nest, flew towards the raven. A few seconds after the hawk owl left the perch, the raven turned to the north and flew away from the hawk owl, whereupon it ceased its pursuit and perched near the nest. On 29 May, a Broad-winged Hawk (*Buteo platypterus*) was observed stooping towards the ground, presumably a prey attempt, ~90m away from the hawk owl nest. The male hawk owl had just delivered a prey item to the nest and had not observed the Broad-winged Hawk go to the ground. After ten minutes, the Broad-winged Hawk was observed flying up from ground, without prey, heading northwest. The male hawk owl, which had perched ~75m from the nest after the prey delivery, immediately flew towards the Broad-winged Hawk and made one stoop on the Broad-winged Hawk before turning and heading back toward the nest. The Broad-winged Hawk continued to fly northwest until it was out of sight.

While perched near the nest, the male hawk owl was harassed by several avian species. A Hairy Woodpecker (*Picoides villosus*), Northern Flicker (*Colaptes auratus*), Least Flycatcher (*Empidonax minimus*), Blue Jay (*Cyanocitta cristata*), a pair of Tree Swallows (*Tachycineta bicolor*), Blackburnian Warbler (*Dendroica fusca*), and a Black-throated Green Warbler (*Dendroica virens*) were observed making aggressive passes at or scolding the perched hawk owl. In all cases, the male hawk owl remained perched and seemed to ignore the encounters.

Vocalizations

Often the male from Nest A would utter the same vocalization while perched near the nest, while hunting near the nest, and occasionally in flight. The vocalization could be described as a successive group of 3–4 "chitters" that ascended after each chitter, similar to a Tree Swallow or Chimney Swift, but more intense. It could also be described as a rapid series of "chrep-chrep-chrep-chrep". This vocalization may be the Hunting Call described by Smith (1970) as "queep-queep-queep" or "cheep-cheep-cheep". It is unknown whether the male did this vocalization away from the nest. The female at nest A was not heard using this vocalization.

The female at Nest A was not heard

vocalizing until after the eggs hatched. At that point, the female was heard vocalizing from the nest or a nearby perch. The vocalization was a raspy, drawn out "screeeeee-yip" or "screeeee" call, with an emphasis on the "yip" ending. Also, the male at nest A was heard giving this vocalization when the female no longer brooded the nestlings. Smith (1970), Mikkola (1983), and Lane and Duncan (1987) described this vocalization as either an intruder call or a contact call between the male and female when prey is being delivered. From the observations collected at Nest A, it seems likely that this vocalization was being used as a contact call between the male and female, because the female often gave this vocalization prior to receiving prey from the male.

Both adults at Nest A gave a series of rapid, loud alarm calls when the nest tree was being climbed. Smith (1970) described this vocalization as a rapid series of "kee-kee-kee" or "kip-kip-kip". Also, the female at Nest B gave a shrill "ki kikikikiki" call from the nest cavity when an intruder stood within ~15m of the nest (call could be described as woodpecker-like). This was the Yelping Call described by Duncan and Duncan (1998).

Nestlings were heard at Nest B giving a thin "screeeeee-yip" or "seeeeeee-it", with a slight emphasis on the ending note. This call was uttered whether or not the female was present, and could be heard ~40m away. This was presumably the Food Call described by Smith (1970) and Duncan and Duncan (1998).

Nest Site Habitat

Nest A was located 140m from county road 2 in an ~1.3 h.a. stand of aspen trees surrounded by a hydric cattail swamp, open sphagnum/spruce bog, spruce dominated bog, and birch/aspen/fir forest. The nest was located in the top of a broken off aspen tree situated in a "bowl" ~17.5cm deep. Nest B was located 21.5m from the Gunflint Trail in an <0.4ha stand of live and dead aspen trees surrounded by blowdown (from the 4 July 1999 storm), lowland conifer, and jack pine forest. The nest was in a cavity situated in the side of an aspen snag, either an old Pileated Woodpecker (*Dryocopus pileatus*) cavity or a broken off branch cavity. Nest C was located 110m from county road 50 within a blowdown area surrounded by extensive blowdown and birch/aspen/fir forest. The nest was in the top of a broken off aspen snag situated in a "bowl" ~15–22.5cm deep. See Table 3.

2002

Hawk owl sightings for the winter season of 2001–2002 were substantially fewer than the 2000–2001 record total of 190. Only 35 hawk owls were found with most sightings coming from the Northeast and North-central regions of Minnesota (adjusted to include sightings not previously reported in Bardon (2002)). Nearly 30% (n=11) of the Hawk owls observed in 2001–2002 were found along the mid to upper portions of the Gunflint Trail in Cook County.

Of the 11 birds found along the Gunflint Trail, 4 pairs were identified. On 5 February, two pairs and two single birds were found. The first pair was located at the Gunflint Pines Resort (Site 1), which could have been the same pair that nested here in 2001. The female at Site 1 was observed going into potential nest cavities and a copulation was witnessed on 8 March. The other pair located on 5 February (Site 2) was located ~3.5km away from site 1. The male at Site 2 was heard giving the breeding call on 5 February. On 20 February, one of the single birds found on 5 February was relocated ~2km east. After observing this bird for ~30 minutes, a subsequent bird was observed going into a potential nest cavity (Site 3). Both birds remained close to one another and on three occasions the male was observed trying to land on top of the female. The male at Site 3 was heard giving the breeding call on 20 February. On 11 March, the last pair was found ~6.7km south of Site 2 (Site 4). The pair at Site 4 often perched near one another and uttered smooth, rolling "chirup-chirup" vocalizations.

Of the four pairs identified in 2002, two

nests were found; at Site 1 on 15 May and at Site 2 on 1 June. Both nests were found during the nestling stage, with young vocalizing (food begging call) in the nest. The nest at Site 1 was located in the top of an aspen snag and held at least two young, which were near fledging, based on feather development. The nest at Site 1 was in the same location description as the 2001 nest C. The nest at Site 2 was located in the top of a paper birch snag and held at least two nestlings heard food begging from the nest. Site 2 was in a salvage cut area of blowdown surrounded by extensive blowdown, birch/aspen/fir forest, tag alder swamp, and young aspen forest. No fledged young or adults were observed at Site 1 or 2 on subsequent visits.

Acknowledgments

I would like to thank Ken and Molly Hoffman, Jim Lind, Frank Nicoletti, and Peder Svingen for providing valuable information about active or historic hawk owl nest sites. Also, I would like to thank Dave Evans, Jim Lind, and Peder Svingen for reviewing and improving this article. Lastly, I am indebted to an understanding wife who has tolerated my research interests.

References

Bardon, K. J. 2002. The Winter Season (1 December 2001 – 28 February 2002). ***The Loon*** 74:137–153.

Cramp, S. [Ed.]. 1985. *The Birds of the Western Palearctic*, Vol. 4. Oxford Univ. Press, Oxford, U.K.

Duncan, J. R., and P. A. Duncan. 1998. Northern Hawk Owls (*Surnia ulula*). *In:* A. Poole and F. Gill [eds.]. The Birds of North America, No. 356. The American Ornithologists' Union, Washington D.C.

Duncan, P. A., and W. C. Harris. 1997. Northern Hawk Owls (*Surnia ulula caparoch*) and forest management in North America: A review. *Journal of Raptor Research* 31:187–190.

Eckert, K. R. 1992. A record invasion of northern owls: Fall – Winter 1991–1992. ***The Loon*** 64:189–195.

Green, J. C. 1981. Summer season: June 1 to July 31, 1980. ***The Loon*** 53:132–147.

James, F. C. and H. Shugart, Jr. 1970. A quantitative method of habitat description. *Audubon Field Notes* 24:727–736.

Janssen, R. B. 1987. *Birds in Minnesota*. University of Minnesota Press, Minneapolis, MN.

Kehoe, M. 1982. Nesting Hawk Owls in Lake of the Woods County. ***The Loon*** 54:182–185.

Kertell, K. 1986. Reproductive biology of Hawk Owls *Surnia ulula* in Denali National Park, Alaska. *Raptor Research* 20: 91–101.

Lane, P. A., and J. R. Duncan. 1987. Observations of Northern Hawk-owls nesting in Roseau County. ***The Loon*** 59:165–174.

Mikkola, H. 1972. Hawk Owls and their prey in northern Europe. *British Birds* 65:452–460.

Mikkola, H. 1983. *Owls of Europe*. Buteo Books. Vermillion, S.D.

Newton, I. 1976. Population limitation in diurnal raptors. *Canadian Field-Naturalist* 90:274–300.

Roberts, T. S. 1932. *The Birds of Minnesota*. Vol. I. Univ. of Minnesota Press, Minneapolis, MN.

Rohner, C. J., N. M. Smith, J. Stroman, M. Joyce, F. I. Doyle, and R. Boonstra. 1995. Northern Hawk-owls in the Nearctic boreal forest: Prey selection and population consequences of multiple prey cycles. *Condor* 97:208–220.

Smith, D. A. 1970. Observations on nesting Hawk Owls at the MerBleue, near Ottawa, Canada. *Canadian Field-Naturalist* 84:377–383.

Strnad, F. 1963. Hawk Owls in St. Louis County, Minnesota. *The Flicker* 35: 129–134.

Svingen, P. H., K. V. Haws, and B. A. Lenning. 2001. The 2000–2001 influx of northern owls: record high numbers of Northern Hawk and Great Gray owls in Minnesota. ***The Loon*** 73:135–143.

Weins, T. 1989. The summer season: June 1 to July 31, 1988. ***The Loon*** 61:18–33.

Wilson, S. 1993. Nesting Northern Hawk Owls. ***The Loon*** 65:58–60.

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The Summer Season
(1 June through 31 July 2002)

Terry P. Wiens

In contrast to much of the nation, Minnesota experienced an unusually wet summer — and like a magnet, seemed to draw a number of waterbirds from drought-stricken areas. Noteworthy were many reports of grebes, waterfowl, and shorebirds. Known for their continuing range expansion, ***White-faced Ibis****,* ***Mississippi Kite****,* ***Eurasian Collared-Dove****, and* ***Great-tailed Grackle*** *were all reported this season. Notable for their decline, a lingering* ***Burrowing Owl*** *and two* ***Baird's Sparrows*** *were well-documented. Other unusual finds included* ***White-eyed Vireo****,* ***Lazuli Bunting****, and* ***Painted Bunting*** *— but perhaps the most interesting to a multitude of observers was the* ***Long-billed Curlew*** *that visited for over a week in July.*

A total of **277** species was observed during the season, well above the previous ten-year average of 267 and tying the record-high total originally set in 2000. Seasonal reports and/or breeding information were submitted by 177 individuals, easily breaking the previous record of 156 set the past two years. (No doubt this helps explain why reports were significantly higher than normal for more than 60 species!) Contributors sent in 722 nest or brood cards, similar to last year. Breeding data were collected for 162 species (slightly above average). The top contributors of breeding information included Jean Segerstrom & Mark Newstrom (211 nest/brood cards), Robert E. Holtz (75), Michael R. North (73), and Roger J. Schroeder (52). Thanks to all contributors for your excellent efforts!

Only two mid-June observations of **Red-throated Loons** were surprising, considering the recent documentation of late spring migrants in June and July (no fewer than 26 individuals were found in early June 1999, and groups of 18 and 15 were tallied in 2000). **Pied-billed Grebes**, **Red-necked Grebes**, and **Eared Grebes** were reported in record numbers — likely related to the overabundance of rain. Unfortunately, **Horned Grebes** did not follow suit, with none being reported from their traditional breeding range. **Clark's Grebes**, recently reported almost every summer, were at two locations; breeding occurred in western Minnesota, but it is not known if the Clark's mate was another Clark's or a **Western Grebe**. A new nesting colony of **American White Pelicans** was discovered in Meeker County; breeding in the state has traditionally been limited to just two established sites, but four new (and widely separated) sites have been documented within the past eight years. However, it is not known if they all remain active.

Only one **Snowy Egret** was reported, about average for the summer season but fewer than expected following a good spring migration. **Cattle Egret** sightings included a remarkable **90** individuals in Traverse County on 14 July! There were no reports at all of **Yellow-crowned Night-Heron**, only the second time in recent memory that it has not been found during the summer. What is the present status of this species in the state? Two records of **White-faced Ibis** (holdovers from May in southwestern Minnesota, and two birds found in Meeker County) are indicative of its changing status and gradual range expansion to the north.

Waterfowl were plentiful throughout the state, based on DNR census results

and record-high numbers of reports for six species. Of note were observations of a **Greater White-fronted Goose** (seen in three counties, although it may have been just one bird), two **Snow Geese**, a **Ross's Goose**, several **Mute Swans**, and several **Bufflehead**. The second summer **Mississippi Kite** in the past five years was documented in the same general area of the Twin Cities as one found in April. (Unfortunately, none of the eight or nine sightings during the intervening six weeks was sufficiently documented, so it was impossible to determine whether or not the same bird was involved.) Another mid-summer **Rough-legged Hawk** was found in northwestern Minnesota. The amazing story of breeding **Merlins** in the Twin Cities area continued, and the Midwest Peregrine Restoration Project reports that the **Peregrine Falcon** population may be approaching stability — less than 20 years ago, even one successful nesting in the entire state was considered a big event! Discouraging was the continued decline of **Gray Partridge** and **Sharp-tailed Grouse** numbers. **Ruffed Grouse** drumming counts were down this year, as expected. Doing well were **Ring-necked Pheasants** and **Wild Turkeys**. One **Northern Bobwhite** was heard regularly all summer in Houston County, where this species' wildness has been assumed. Reports were up for **Virginia Rail**, **Sora**, and **American Coot** (like the waterfowl, apparently enjoying the unusually wet summer).

Wet conditions also created abundant shorebird habitat. On 25 July, a census by Bridgett Olson at Big Stone N.W.R. totalled **4928** shorebirds! Reports for no fewer than ten species were well above average, and six of those were record-highs. Sorting out northbound vs. southbound shorebirds can be difficult, but please see Karl Bardon's excellent article concerning summer shorebird migration (***The Loon*** 74:65–82), which does much to clarify the status of birds found during the summer months. Noteworthy records this year included **American Avocets** at eight different locations (including one successful nesting), a late **Whimbrel** on 5 June at Duluth, an unusually early fall **Hudsonian Godwit** on 28 July, two separate reports of **Red Knots**, a record-high count for the **White-rumped Sandpiper**, and an unprecedented number of **Wilson's Phalaropes** scattered throughout the state. The most unusual shorebird this season was the **Long-billed Curlew** discovered at a sod farm in Anoka County on 19 July. Although there was initial confusion as to its identity (having a relatively "short" bill didn't help), the bird was very cooperative and remained in the area for over a week.

Unfortunately, not all shorebird news was positive. **Piping Plovers** apparently did not nest at their last remaining site in Lake of the Woods County (water levels were way too high). Furthermore, the U.S. Fish and Wildlife Service reported that singing-ground surveys of **American Woodcock** indicate long-term declines in the central North American breeding population of this species.

Two early June observations of **Bonaparte's Gulls** were fewer than usual. A new nesting site for **Ring-billed Gulls** was located in central Minnesota at a sewage treatment plant. The reports of **Caspian Terns** at scattered locations throughout the state were not unusual for this species, which has occasionally nested here. For the second consecutive summer, there were multiple reports of **Eurasian Collared-Doves** (documented and undocumented); nesting reportedly occurred again in extreme southeastern Minnesota. Speaking of breeding, two pairs of **Northern Hawk Owls** nested in Cook County, following last year's unprecedented four nests in northeastern Minnesota (***The Loon*** 75:8–14). Only a handful of nesting records existed for this species previous to last year. Another owl of note was the well-publicized **Burrowing Owl** that lingered into early June after being admired by many during May — apparently, this bird remained single and hopes of breeding were dashed. A reliable location for finding **Great Gray Owls** was the Sax-Zim bog area of St.

Louis County, where individuals were found at eight separate locations during June. Only one report of **Short-eared Owl** this year was in sharp contrast to the large number reported in each of the past two summers. **Three-toed Woodpeckers** were observed in typically remote boreal forest of the Arrowhead region.

A large number of **Olive-sided Flycatchers** lingered in southern Minnesota at the beginning of June; perhaps this was related to the extremely late leaf-out noted in May (see spring report). There were also numerous early June reports of **Alder Flycatchers** extending into and south of the Twin Cities area. A record number of **Willow Flycatcher** reports was received, some of these as far northeast as St. Louis County! Overlapping breeding ranges, combined with lingering migrants, makes it imperative that observers be careful whenever encountering an *Empidonax*, especially in early June. For the third time in the past four summers, a **White-eyed Vireo** was found in southeastern Minnesota. An impressive number of **Bell's Vireos** was reported. **American Crows** were observed in 70 counties — above average — but did their numbers decline? The effects of West Nile Virus on this and other species were extremely hard to document, as very few (if any!) observers make a habit of recording peak numbers for common species, especially year-around resident species that we take for granted. Perhaps the Breeding Bird Surveys and Christmas Bird Counts will provide some insight.

An unprecedented **six** separate **Carolina Wrens** were found, all in an area extending from the Twin Cities toward the southeast. Previously, one report at most was the norm, making this by far the largest summer influx on record. **Blue-gray Gnatcatchers** continued to expand their range into central Minnesota and they are now relatively common in southern Cass County. **Northern Mockingbirds** were found at three separate locations, including a nesting pair seen by many in the Twin Cities area.

Some years the warbler migration extends unusually late into June, but despite the delayed leaf-out this spring, most species were more or less on schedule. With the notable exception of **Tennessee Warbler**, there were relatively few late south dates. (On a related note, observers in the East-central and Southeast regions of the state should keep an eye out for a number of warbler species, typically thought of as "northern" breeders, that nest as far south as the Twin Cities area and beyond — in many cases the southern extent of their breeding range is poorly known. Examples include **Nashville**, **Chestnut-sided**, **Yellow-rumped**, **Black-and-White**, and **Mourning warblers**.) **Black-throated Blue Warblers** were found in good numbers along a census route in extreme northeastern Minnesota; more suprising was the late migrant found in Marshall County. Seemingly strange was the lack of reports of **Yellow-throated Warbler**; despite the fact that this species is Casual, it had been found in six of the previous eight summers, and successfully nested last year. Two late **Blackpoll Warblers** were the first to be recorded in four summers. Encouraging were the many sightings of **Cerulean Warblers**, extending up into the northern half of the state. There were also reports of **Kentucky Warblers** from three separate locations, including one well-documented bird in early June at Moorhead! **Hooded Warblers** had a good showing, with the usual batch at Murphy-Hanrehan Park on the southern edge of the Twin Cities area, and a most unusual first for Pine County. Singing **Wilson's Warblers** were once again found in extreme northeastern Minnesota. No **Yellow-breasted Chats** were located this summer, ending a streak of five consecutive years (most of which included multiple sightings).

Numerous birders were able to enjoy the **Baird's Sparrow** discovered in mid-June and seen throughout the summer in Polk County. An additional Baird's was found in mid-July at a separate location in the same county. This species was once an uncommon breeder in the far west. The four reports of **Henslow's Sparrows**

were significantly fewer than the previous two years, but closer to the long-term average. Most unusual was the late **Harris's Sparrow** found in Stearns County in early June. **Chestnut-collared Longspurs**, as usual, were found only at their reliable Felton Prairie site in Clay County. **Northern Cardinals** continued to push their way slowly northward, one feeder at a time.

Buntings made news this summer, with the sighting of a **Lazuli Bunting** in mid-June near Willmar (probably one of the three or more found in this area in May), and the **Painted Bunting** photographed in northern St. Louis County. **Dickcissels**, notorious for being irruptive in some years, were more common than usual. There have been anecdotal reports that meadowlark numbers (both species) are declining, but no hard evidence of that can be found here — something else for observers to keep an eye on! (Also see ***The Loon*** 72:127–132.) Like the Eurasian Collared-Dove, the **Great-tailed Grackle** appears to be inching its way into the state, with another documented record occurring this summer. And finally, a few scattered sightings of **Red** and **White-winged Crossbills** were forwarded from northern Minnesota, typical for these erratic birds.

Unconfirmed and/or Undocumented Reports: **Snow Goose** (no date) Benton; **Tundra Swan** (entire summer) St. Louis (Duluth); **Eurasian Collared-Dove** 6/10 Otter Tail (near Perham) and 6/11 Lyon (Russell); **Great-tailed Grackle** breeding reported 8/11 Cottonwood (small colony of adults feeding young at Bat L.).

Weather Summary: Summer 2002 weather patterns seemed to validate all of the global warming theories — temperatures in June and July were generally two to four degrees warmer than normal across the state. On several occasions beginning in late June, warm temperatures and high humidity combined to create heat index values over 100 degrees. Did these conditions have a negative impact on nesting success? On the flip side, there were none of the frosts that sometimes can occur in early to mid-June.

Rainfall totals were well above normal in most regions of the state. This was in sharp contrast to the national picture; according to the *National Drought Monitor*, "more than one-third of the contiguous United States was in severe to extreme drought… at the end of June 2002." June was one of the wettest months in Minnesota's history, with torrential rains hitting a variety of locations on several occasions. Flooding was especially severe in northwestern Minnesota; anecdotal evidence suggests that high water levels decimated breeding attempts by species that rely on shallow water.

Format, Maps, and Acknowledgments

The format for the species accounts is similar to that of recent years. Breeding records are classified based on the criteria adopted in April 2001 by the Minnesota Ornithologists' Union Records Committee. Each species having at least one nesting record in 2002 has an accompanying map indicating counties in which these records occurred; **confirmed** nesting records are indicated by dark shading, **possible** nesting records by lighter shading.

Counties for which confirmed breeding is documented for the first time since 1970 are in italics and identified as such according to updated versions of *County Nesting Records of Minnesota Birds* (Hertzel and Janssen, M.O.U. Occasional Papers: Number 2, 1998). Divisions of the state into regions (e.g. West-central, Southeast) are based on those delineated in *Birds in Minnesota*, p. 25 (Janssen 1987); see also ***The Loon*** 73:14.

A final thanks to all of the summer season reporters who make it possible to document avian distribution and migration. Dave Benson and Anthony Hertzel summarized sightings called in to the M.O.U. "hotlines" in Duluth and the Twin Cities. Thanks also to Anthony Hertzel for preparing the breeding maps, Paul Budde for compiling the electronic reports, and to Peder Svingen, Kim Eckert, and Karl Bardon for their assistance in preparing this report.

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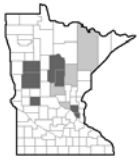
KEY TO *THE SEASON*

1. Upper case (**LEAST TERN**) indicates a Casual or Accidental species in the state.
2. Dates listed in bold (**10/9**) indicate an occurrence either earlier, later or within the three earliest or latest dates on file.
3. Counties listed in bold (**Aitkin**) indicate an unusual occurrence for that county.
4. Counties with an underline (**Becker**) indicate a first county record.
5. Counties listed in italics (*Crow Wing*) indicate a first county breeding record.
6. Brackets [ ] indicate a species for which there is reasonable doubt as to its origin or wildness.
7. Counts listed in bold (**150**) indicate total within or exceeding the top three high counts for that species.
8. Dagger "†" preceding observer's initials denotes documentation was submitted.
9. Species documented with a photograph are denoted with "ph".

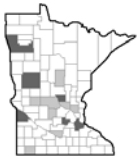
The Season is a compilation of bird sightings from throughout Minnesota. We particularly invite reports from parts of the state that have been neglected or covered lightly in past reports. To become a contributor, request a report form from the Editor of *The Season*, Peder Svingen, 2602 E. 4th St., Duluth, MN 55812–1533.

Red-throated Loon — Two reports from Lake Superior at Duluth: 6/11 St. Louis SWe, 6/14 St. Louis *fide* DRB.

Common Loon — Reported in 40 counties as far south as Rice; no reports from the Southwest or Southeast regions.

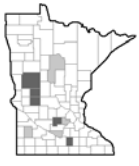


Pied-billed Grebe — Record-high number of reports. Seen in 47 counties statewide; new nesting record in *Benton* MN, JS.



Horned Grebe — All reports: 6/30 Lake (Stoney Point) ph. BCM, 7/9 St. Louis (Duluth) JRN, 7/28 St. Louis (L. Superior) JCG. There were no reports from the traditional breeding range in the Northwest.

Red-necked Grebe — Record-high number of reports. Observed in 30 counties (including 6/12 Cook JWL) in all regions except Southeast; new nesting record in *McLeod* RWS.



Eared Grebe — Record number of observations, almost double the previous ten-year average. Seen in nine western counties plus Brown, Nicollet, Sibley, Carver, Hennepin, Waseca. Peak counts 400+ on nests at Swan L. in Sibley Co. DDM, and 300 on 7/19 at Warren sewage lagoons in Marshall Co. CRM.

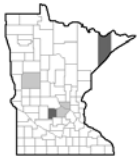
Western Grebe — Reported in 14 counties scattered across the Northwest, West-central, and Central regions; plus Hennepin, Dakota, Nicollet, Waseca. Peak count 6/15 Big Stone (175) PHS.

Clark's Grebe — Observed 7/14 Big Stone (2 adults at Thielke L.) †PCC, †PHS. At this location in August, two young chicks were observed with one adult Clark's; it was likely that at least one parent was a Clark's. Also reported 7/4 and 7/15 Meeker (Long L.) †DMF, CBe.

American White Pelican — Seen in 37

counties in all regions except Northeast. New nesting record in *Meeker* (colony with 50+ flightless young on 7/18 at Pigeon L.) RBJ, BJM, DDM, PLJ.

Double-crested Cormorant — Reported in 36 counties statewide; new nesting record in *Lake* N.R.R.I.

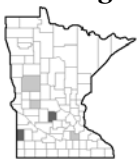


American Bittern — Observed in 20 counties scattered throughout the state.

Least Bittern — Many reports. Seen in 13 counties as far north as Otter Tail, Stearns, Sherburne, Anoka.

Great Blue Heron — Reported in 62 counties statewide; new nesting record in *Lincoln* RJS.

Great Egret — Most reports since 1989. Observed in 37 counties as far north as a line through Polk, Wadena, Pine; new nesting record in *Lincoln* RJS.

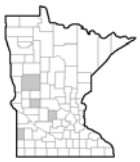


Snowy Egret — Only report: 6/11 Kandiyohi (6 miles north of Pennock) *fide* AXH.

Cattle Egret — All reports: 6/10 **Todd** (no location) SDu, 7/5 Polk (Glacial Ridge Project) CRG, 7/8 and 7/10 Lyon (3 in Island L. Twp.) RJS, 7/14 Traverse (**90** near Boisberg; second highest count on record) PHS, 7/14 Traverse (5 in Taylor Twp.) PCC, ph. PHS.

Green Heron — Observed in 47 counties as far north as Marshall, Beltrami, St. Louis.

Black-crowned Night-Heron — Seen in 15 counties as far north as a line through Otter Tail, Isanti; no reports from Southeast region.



WHITE-FACED IBIS — Two discovered 7/12 (both seen through 7/15, one still present 7/17) near Cedar Mills in Meeker Co. SPS, †DMF, †PHS, m.obs. Holdovers from May (please see spring report) observed 6/2 Murray (4 at Hiram Southwick W.M.A.) MSS.

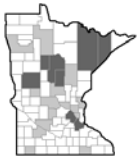
Turkey Vulture — Reported in 50 counties statewide.

Greater White-fronted Goose — Three reports: 6/6 Sherburne (Sherburne N.W.R.) RBJ, 6/7 Isanti (no location) *fide* AXH, 7/3 Stearns (no location) RPR. The proximity of these counties raises the question of whether these sightings were all the same bird.

Snow Goose — Two reports: 6/2 Murray (Slayton sewage lagoons) MSS, 6/19 Rice (white-morph at River Bend N.C.) †TFB.

Ross's Goose — Second consecutive summer report: **6/20–21** Dakota (adult at L. Byllesby) †ADS *et al.*

Canada Goose — D.N.R. survey estimated population size at 315,000 (16% above last year). Record number of reports from 68 counties throughout state; new nesting record in *Lake* N.R.R.I.

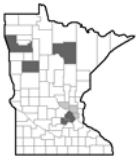


Mute Swan — Unusual number of reports: 6/1 Washington (near Lost Valley S.N.A.) TAT, 6/2 and 6/8 Meeker (Mud L.) PLJ, DMF, 6/17–23 Brown (3 at Sleepy Eye sewage lagoons) ph. †BS, ph. PHS, 7/14 Hennepin CRM, 7/24 McLeod JJS. As

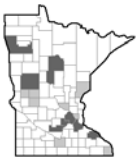
American Bittern, 1 June 2002, Agassiz N.W.R., Marshall County. Photo by Vija Kelly.

always, the wildness of these birds is in question.

Trumpeter Swan — Observed in record-high 21 counties as far north as Polk, Itasca, Carlton (but no observations in West-central or Southwest regions). Sightings have increased steadily since the early 1990s; D.N.R. reports nearly 900 Trumpeter Swans now live in Minnesota year round. At Tamarac N.W.R. in Becker Co. alone, 8 pairs produced 48 cygnets BAB.



Wood Duck — Seen in 51 counties statewide.

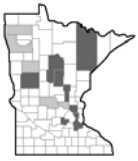


Gadwall — Record-high number of reports. Reported in 20 counties as far east as a line through St. Louis, Washington, Waseca; new nesting record in *Lincoln* RJS.

American Wigeon — Most reports since 1989; seen in 14 counties as far south as a line through Traverse, Pope, Meeker, and Hennepin.

American Black Duck — Observed in Polk, Norman, St. Louis, Lake, Carlton, Pine; plus late migrant seen 6/2 Hennepin SLC.

Mallard — D.N.R. estimated breeding population at around 367,000, up 14% from last year. Seen in 67 counties throughout state.



Blue-winged Teal — D.N.R. estimated breeding population at around 430,000, up 217% from last year and 94% above long-term average. Not surprisingly, record-high number of reports; observed in 53 counties statewide.

Northern Shoveler — Record number of reports — over twice the previous ten-year average! Observed in 32 counties in all regions of the state, as far east as St. Louis in the Northeast and Winona in the Southwest.

Northern Pintail — Seen in seven western counties plus Meeker, Freeborn.

Green-winged Teal — Found in 22 counties in all regions except Southwest and South-central; new nesting record in *St. Louis* N.R.R.I.

Canvasback — Seen in six western counties plus Benton, Meeker, Wright, Hennepin, Dakota.

Redhead — Record-high number of reports. Observed in 28 counties as far north and east as a line through Marshall, Morrison, Anoka, Rice, and Freeborn counties; plus St. Louis. New nesting record in *Murray* RJS.

Ring-necked Duck — Seen in 24 counties in all regions except Southwest (including 6/3 Wabasha PHS).

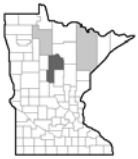
Lesser Scaup — Reported from a total of 14 counties in all regions of the state except the Northwest, Southwest and Southeast.

Bufflehead — Reported in Marshall, Polk, Red Lake, Beltrami; plus 6/9 McLeod RWS.

Common Goldeneye — Seen in Bel-

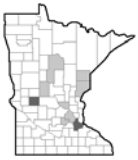
Cattle Egrets, 14 July 2002, Traverse County. Photo by Peder Svingen.

Four Osprey young, 26 July 2002, Ramsey County. Photo by Dennis Martin.

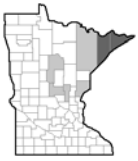


trami, Hubbard, Cass, St. Louis, Lake, Cook; plus **6/17** Murray (male) RJS.

Hooded Merganser — Observed in 31 counties statewide.

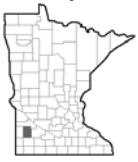


Common Merganser — Found in Hubbard, Cass, St. Louis, Lake, Cook; plus possible breeding in Morrison, Mille Lacs, Pine (south of known breeding range). Also reported **6/9** Hennepin (male on Minnesota R.) SLC.

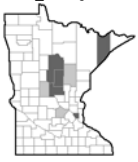


Red-breasted Merganser — Only reports from St. Louis, Lake; plus an injured bird summering at Paynesville in Stearns Co. RPR, JPM.

Ruddy Duck — Record number of reports — almost twice the previous ten-year average. Seen in 36 counties as far north and east as a line through Marshall, Pine, Dodge; plus 6/6 and 6/14 Lake (2 at Beaver Bay sewage lagoons) SL, JCG, 6/22–23 Winona DAB, GLS.

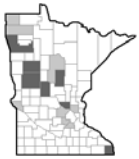


Osprey — Observed in 21 counties in all regions except Northwest and Southwest.



MISSISSIPPI KITE — Second summer record (first was in 1998); observed **6/9** Hennepin (Golden Valley) †TPB.

Bald Eagle — Seen in 42 counties in all

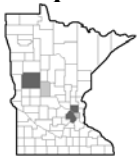


regions except Southwest; new nesting record in *Todd* MRN.

Northern Harrier — Reported in 37 counties in all regions except Southeast.

Sharp-shinned Hawk — Observed in Pennington, Wadena, Cass, Crow Wing, Itasca, Carlton, St. Louis, Lake.

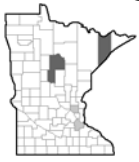
Cooper's Hawk — Reported in 30 counties in all regions except Southwest.



Northern Goshawk — The summer's only reports were from Cass and Lake counties.

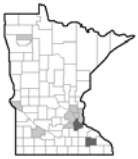
Red-shouldered Hawk — Seen in the counties of Becker, Cass, Crow Wing, Todd, Stearns, Isanti, Wright, Anoka, Hennepin, Dakota, and Goodhue.

Broad-winged Hawk — Reported in 27 counties as far west and south as a line through Lake of the Woods, Clearwater, Pope, Kandiyohi, Rice.



Swainson's Hawk — Observed in eight western counties plus Ramsey, Dakota, Steele, and Winona.

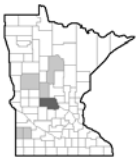
Red-tailed Hawk — Reported in 58



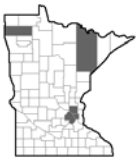
counties statewide.

Rough-legged Hawk — Only report: **7/2** Roseau (light morph along U.S. highway 310, about 4 miles south of Canada) †GG.

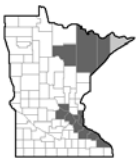
American Kestrel — Seen in 59 counties throughout state.



Merlin — Reported in Pennington, Beltrami, Cass, St. Louis, Lake; plus new nesting record in *Marshall* SAS. Also, five nesting pairs in Twin Cities area (Hennepin, Anoka, Ramsey) fledged 16 young MJS; new nesting record in *Ramsey* MJS.



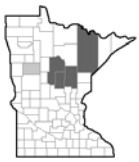
Peregrine Falcon — Midwest Peregrine Restoration Project reports 32 territorial pairs in Minnesota fledged 60 young — population may be approaching stability in the Midwest (144 pairs, 284 young fledged). Breeding evidence found in 13 counties (see map), plus observations in Marshall, Stearns; new nesting record in *Wabasha* (Midwest Peregrine Restoration Project).



Gray Partridge — Few reports, like last year. Seen in Polk, Clay, Pipestone, Murray, Nobles, Jackson, Watonwan, and Freeborn.

Ring-necked Pheasant — D.N.R. data indicates the pheasant population was up 86% from the previous year (and 36% above ten-year mean). Observed in 39 counties as far north as a line through Traverse, Otter Tail, Wadena, Isanti, and Washington.

Ruffed Grouse — D.N.R. reports numbers declined for third consecutive year (as expected); statewide drumming counts were down 11 percent. Seen in 23 counties as far west and south as a line through Polk, Becker, Meeker, Fillmore.

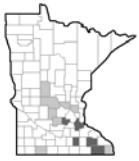


Spruce Grouse — Only report from Lake.

Sharp-tailed Grouse — Observed in St. Louis, Aitkin, Pine; D.N.R. reported numbers declining slightly in both the northwestern and east-central portions of range.

Greater Prairie-Chicken — Seen in Norman, Polk. Red Lake, Clay, Wilkin, Otter Tail; peak count 4/21 Polk (75 at a lek near Fertile) RP.

Wild Turkey — Record-high number of reports, continuing recent trend. Observed in 31 counties as far north as Otter Tail, Pine; new nesting record in *Carver* MN, JS.

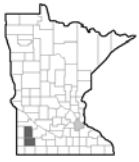


Northern Bobwhite — Heard regularly all summer seven miles southeast of Spring Grove, Houston Co. *fide* KAK.

Yellow Rail — Only reports from Roseau, Polk, Aitkin.

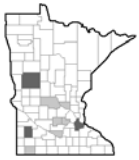
Virginia Rail — Most reports since 1992; seen in 20 counties as far north as a line through Polk, Cass, Carlton.

Sora — Most reports since 1982. Observed in 38 counties statewide; new nesting record in *Murray* RJS.

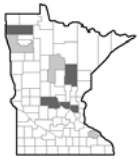


Common Moorhen — All reports: 6/3 and 7/1 Wabasha (Whitewater W.M.A.) PHS, JLU, 6/4 Meeker (L. Hanson) DMF, 6/16 Meeker (Minnesota L.) DMF, 7/11 Houston (no location) OWB.

American Coot — Record-high number of reports; seen in 41 counties statewide.



Sandhill Crane — Observed in 22 counties roughly along the diagonal from Marshall to Winona; plus 6/16 and 7/10 Lyon (4 at Coon Creek W.M.A.) *fide* RJS, 6/18 Lincoln (4) *fide* RJS, 7/6 Lake JWL. New nesting record in *Stearns* WC, PDH.



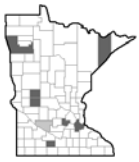
Black-bellied Plover — All reports: 6/8 Traverse (12) PCC, 6/7 and 6/17 Becker (Hamden Slough N.W.R.) DPJ, *fide* AXH.

American Golden-Plover — Recorded during several surveys 6/8–30 Traverse PCC, PHS; evidence suggests these are late spring migrants or non-breeding summer visitors (see ***The Loon*** 74:65–82 for a review of migration data for this and other shorebird species). Peak count 6/30 Traverse (14) PCC, PHS; also reported 6/30 Polk JPM, **7/7** Traverse (8) PHS (also likely in same category as above). Harder to categorize was the report **7/14** Polk *fide* BAB.

Semipalmated Plover — Record-high number of reports; June and July migrants seen in 14 counties scattered statewide. Late migrant 6/20 Dakota ADS, early migrant **7/2** Dakota TAT; peak count 7/28 Lac Qui Parle (35) PCC.

Piping Plover — Only report 6/7 St. Louis (Park Point, Duluth) DFJ. At traditional site in Lake of the Woods Co., water levels reported to be way above normal; none were observed 6/21 JPE.

Killdeer — More reports than usual; seen in 73 counties statewide. New nesting record in *Douglas* REH, record-high count 7/7 Traverse (**530** at Mud L.) PHS.



American Avocet — Record-high number of reports (following an exceptional number of spring sightings). As many as five adults and three fledged young observed on various June dates at Hamden Slough N.W.R., Becker Co. BAB *et al*. All other reports: 6/8 and 6/16 Traverse (max. 7 at Mud L.) PCC, RSF, PHS; 6/15–7/14 Big Stone (max. 4 near Graceville) PHS; 7/10 Dakota (Eagan) ADS; 7/12 and 7/22 Winona (max. 2 at Lewiston sewage lagoons) CAS, CRM; 7/14 Meeker (L. Hanson) DMF; 7/17 Houston (2 at Heron/Trapping Islands) FZL; 7/28 Murray (3 at Eastlick Marsh, Shetek) *fide* RJS.

Greater Yellowlegs — Fall migrants found in 16 counties throughout west and south. Early migrant 7/1 Polk CRM, peak count 7/25 Lac Qui Parle (37) BEO.

Lesser Yellowlegs — Record-high number of reports, the majority during July. Seen in 34 counties grouped in the Northwest, West-central, Central, East-central, South-central and Southeast regions; the only report from the North-central and Northeast was St. Louis, and there were no reports from the Southwest. (Note that this general pattern of observations was also seen for several other shorebird species, from Greater Yellowlegs to Short-billed Dowitcher.) Late migrant **6/17** Winona CBe, early migrants 6/30 Traverse, Norman, Becker and Dakota m.obs. Peak count 7/21 Lac Qui Parle (181) PCC.

Solitary Sandpiper — Reported in 17 counties within pattern described for Lesser Yellowlegs; plus Lake of the Woods, Lake. Only late migrant 6/1 Freeborn AEB; all other observations away from

breeding range occurred from 7/4 to 7/29. Peak count 7/25 Lac Qui Parle (13) BEO.

Willet — All reports: 6/8 Traverse PCC, 6/23 Traverse PHS, 6/30 Traverse (5) PCC, PHS, 6/30 Becker (2) TAT, 7/6 Meeker DMF, 7/10 Dodge (4 adults) TAT, 7/23 Big Stone DB, 7/28 Lac Qui Parle PCC.

Spotted Sandpiper — Seen in 38 counties in all regions except Southwest.

Upland Sandpiper — Reported in 17 counties as far north and east as a line through Polk, Red Lake, Sherburne, Dakota, Blue Earth; plus St. Louis, Pine.

Whimbrel — Late migrants 6/5 St. Louis (3 at Duluth) JWB.

LONG-BILLED CURLEW — Second summer record in modern times; **7/19–28 Anoka** (Robinson Sod Farm) PA, †CBr, †PCC, †PHS, m.obs.

Hudsonian Godwit — Early fall migrants 7/28 Traverse (4) PCC.

Marbled Godwit — Reported in nine western counties plus Beltrami, Stearns, Meeker.

Ruddy Turnstone — Spring migrants observed in Brown, Dakota, St. Louis, Hennepin; late migrants 6/8 Traverse (7) PCC. Only fall migrant 7/29 Swift CRM. Peak count 6/1 Brown (45) BS.

Red Knot — All reports: 6/4 St. Louis (Duluth) JWB, **7/16** Dakota (L. Byllesby) ADS. Note that an exceptional number was recorded at the latter location during May (see the spring report).

Sanderling — Spring migrants observed in St. Louis, Traverse, Hennepin, Dakota, Waseca; late migrants 6/16 St. Louis (8) BCM, 6/16 Traverse (5) RSF *et al*. Fall migrants found in St. Louis, Meeker, Big Stone, Lac Qui Parle; early migrant 7/23 Big Stone DB. Peak count 6/8 Traverse (56) PCC.

Semipalmated Sandpiper — Record-high number of reports; spring and fall migrants seen in 25 counties primarily in the west and south. Late migrant 6/20 Dakota ADS, early migrants 7/7 Traverse (4) PHS; peak count 7/28 Lac Qui Parle (832) PCC.

Least Sandpiper — Record-high number of reports; seen in 29 counties primarily in the west and south (almost identical to pattern described for Lesser Yellowlegs). Only spring migrant 6/7 Todd RBJ; all other reports from July. Early migrant 7/4 Meeker DMF; peak count 7/23 Lac Qui Parle (**1000**+) DB.

White-rumped Sandpiper — Spring migrants observed in nine counties; late migrants 6/24 Pope M.C.B.S., 6/24 Dakota ADS. Three undocumented reports from southern Minnesota (7/11, 7/15, 7/21) were excluded. A review of migration data suggests that all July observations should be documented (see ***The Loon*** 74: 65–82). Record-high count 6/8 Traverse (**1253** at Mud L.) PCC.

Baird's Sandpiper — Reported in 11 counties; late migrant 6/7 Becker DPJ, early migrants **6/28** Traverse and Lac Qui Parle PCC. Peak counts 7/25 Lac Qui Parle (14) BEO and 7/21 Big Stone (14) PCC.

Pectoral Sandpiper — Most reports since 1988; observed in 24 counties in the west and south (almost identical to pattern described for Lesser Yellowlegs). Reports in early June, including 6/8 Traverse (75) PCC, 6/11 Rock RBJ, **6/16** Traverse RSF *et al*., were likely late/lingering spring migrants. Early migrant 7/4 Meeker DMF; peak count 7/25 Lac Qui Parle (183) BEO.

Dunlin — More than twice the usual number of reports, all early June migrants; seen in Lake, St. Louis, Carlton, Todd, Douglas, Hennepin, Washington, Dakota,

Brown. Late migrant 6/16 St. Louis (2) BCM; peak count 6/2 Hennepin (7) SLC.

Stilt Sandpiper — Observed in 12 western and southern counties. Only June report 6/8 Traverse (5) PCC; early migrant 7/6 Meeker DMF. Peak count 7/28 Traverse (54) PCC.

Buff-breasted Sandpiper — All reports: 7/21 Anoka SLC, 7/27 Meeker (3 at L. Hanson) DMF, 7/31 Dakota (3) ADS, KJB.

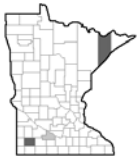
Short-billed Dowitcher — Many reports, similar to 1999. Fall migrants reported in 15 western and southern counties (almost identical to pattern described for Lesser Yellowlegs); early migrants **6/21** (earliest ever) Lac Qui Parle (5) PCC, 6/30 Traverse (4) PHS, PCC. Peak count 7/25 Lac Qui Parle (18) BEO.

Long-billed Dowitcher — Only report: 7/25 Meeker JJS.

Wilson's Snipe — Most reports since 1986; seen in 28 counties in all regions except Southwest and Southeast.

American Woodcock — U.S. Fish and Wildlife Service reported significant long-term declines in the Central North American breeding population (-1.6% per year, based on singing-ground surveys from 1968–2002). Reported in 17 counties (ironically, more than average) as far west as a line through Marshall, Polk, Pope, Blue Earth.

Wilson's Phalarope — Record-high number of reports; observed in **37** counties statewide, over **three times** the previous ten-year average! Reported as far east as 6/17 Winona CBe and *Lake* (new nesting record at Crest L.) ph. SGW; also, new nesting record in *Murray* NED. No fewer than 7 records were of groups in excess of 20 individuals; peak count 7/29 Carver (50+) RMD, but see fall report.

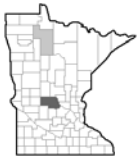


Red-necked Phalarope — All reports: 6/2 Yellow Medicine (Clarkfield sewage lagoons) *fide* AXH, 6/8 and 6/16 Traverse PCC *et al.*, 7/20 Meeker (2) DMF.

Franklin's Gull — Seen in 11 western counties plus Cass, Kandiyohi, Meeker, Wright, McLeod.

Bonaparte's Gull — Only reports: 6/1, 6/10 and 7/28 Beltrami (max. 4) DPJ, 6/3 St. Louis CRM.

Ring-billed Gull — Found in 45 counties throughout state; new nesting record in *Stearns* (14+ nests at Paynesville sewage lagoons) RPR.



Herring Gull — Observed in Cook, Lake, St. Louis, Cass, Traverse, Wright, Houston.

Caspian Tern — Reported primarily in early June, but also several dates in midsummer; seen in Lake, St. Louis, Becker, Otter Tail, Traverse, Douglas, Swift, Wright, Hennepin, Ramsey, Dakota, and Freeborn.

Common Tern — Reported from traditional nesting areas in St. Louis, Cass, Mille Lacs; plus late migrants 6/4 Freeborn AEB, 6/5 Rice (15) TFB, 6/7 Marshall PLJ, **6/10** and **6/14** (record late south date) Dakota (max. 3 at L. Byllesby) †ADS. Only early fall report 7/21 Lac Qui Parle (2) PCC.

Forster's Tern — Seen in 26 counties as far north as a line through Kittson, Clearwater, Wadena, Chisago.

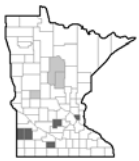
Black Tern — Many reports, similar to 2000; several observers noted increased

numbers. Seen in 51 counties statewide, including St. Louis in Northeast.

Rock Dove — Reported in 59 counties throughout state; new nesting record in *Lincoln* RJS.

EURASIAN COLLARED-DOVE — Reported on nest (exact same location as previous year's nest) at Caledonia, Houston County (see spring report); at least one juvenile and two adults reported without details at this location during the summer. One reported by m.obs. since at least early May was first documented 6/18 **Blue Earth** (Amboy) †RBJ *et al*. Also observed and photographed 6/23 Grant (Herman) †PHS (originally discovered in April, see spring report). Additional undocumented reports were received from Lyon. This species has now been found in three of the past four summers, and seems destined to become Regular.

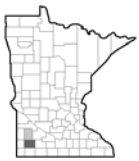
Mourning Dove — Observed in 71 counties statewide; new nesting records in *Lincoln* RJS, *Watonwan* DLB.



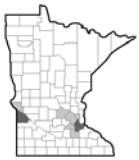
Black-billed Cuckoo — Most reports since 1992; seen in 42 counties throughout state. Suprisingly, field observers in Northeast noted only average numbers, despite three-year outbreak of forest tent caterpillars.

Yellow-billed Cuckoo — Seen in 20 counties as far north as Polk in the west and 6/16 St. Louis (Duluth) KRE in the east; new nesting record in *Becker* BAB.

Eastern Screech-Owl — Reported in Lyon, Murray, Carver, Hennepin, Freeborn.



Great Horned Owl — Observed in 23 counties in all regions except Northeast and Southwest.



Northern Hawk Owl — Two separate confirmed nestings documented in Cook Co. (one at Gunflint Pines Resort, the other 2 miles south of county road 50 on the Gunflint Trail) †DAG; also observed 6/22 Cook (Seagull L.) CBe.

BURROWING OWL — First summer report since 1991. Single adult 6/2 Murray (Lowville Twp.) MSS; this individual was originally discovered in early May (see spring report and ***The Loon*** 74:164–165).

Barred Owl — Seen in 19 counties as far west as Otter Tail; new nesting record in *Carlton* ESH.

Great Gray Owl — Observed at eight locations during June at the Sax-Zim bog in St. Louis Co. m.obs.; also reported in Pine.

Long-eared Owl — Only report: 6/25 Wadena (Rockwood Twp.) RPR.

Short-eared Owl — Reported at Old Mill S. P. in Marshall Co. (June ?, and late July) *fide* BAB.

Northern Saw-whet Owl — Only report from St. Louis.

Common Nighthawk — Seen in 33 counties statewide.

Whip-poor-will — Observed in Lake, St. Louis, Todd, Anoka, Hennepin, Dakota, Houston.

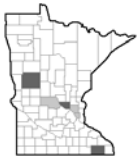
Chimney Swift — Record-high number of reports; seen in 57 counties throughout.

Ruby-throated Hummingbird — Reported in 44 counties in all regions except Southwest.

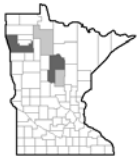
Belted Kingfisher — Observed in 52 counties in all regions except Southwest.

Red-headed Woodpecker — Seen in 40 counties as far north as a line through Kittson, Hubbard, Cass, Aitkin, Pine.

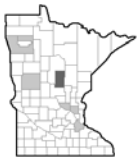
Red-bellied Woodpecker — Many reports, similar to 2000. Observed in 39 counties as far north as a line through Polk, Pennington, Cass, Pine; new nesting record in *Sherburne* PLJ.



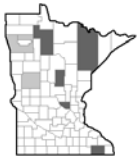
Yellow-bellied Sapsucker — Seen in 37 counties in all regions (but only Yellow Medicine in Southwest).



Downy Woodpecker — Observed in 58 counties statewide.



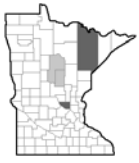
Hairy Woodpecker — Observed in 51 counties throughout state; new nesting record in *Beltrami* DPJ.



Three-toed Woodpecker — All reports: 6/8 Lake (male along Spruce Rd.) KRE *et al.*, 6/23 Cook (Seagull L.) CBe.

Black-backed Woodpecker — Many reports: seen in Cook, Lake, St. Louis, Itasca, Beltrami, Clearwater, Hubbard, Cass; plus 6/8 Pine (St. Croix S.P.) CBr.

Northern Flicker — Observed in 59 counties statewide; new nesting record in *Sherburne* PLJ.



Pileated Woodpecker — Record-high number of reports; seen in 42 counties as far west and south as a line through Clay, Pope, Nicollet, Freeborn; plus 6/25 Jackson CRM.

Olive-sided Flycatcher — Many reports due to numerous late spring migrants. Observed in 8 North-central and Northeast counties; early June migrants found in 12 additional counties outside of breeding range. Late migrant 6/14 Sherburne PLJ.

Eastern Wood-Pewee — More reports than usual; seen in 57 counties statewide.

Yellow-bellied Flycatcher — Reported in nine North-central and Northeast counties plus Mille Lacs, Pine; late spring migrants reported 6/3 Hennepin SLC, 6/7 Dakota TAT, 6/10 Clay RHO.

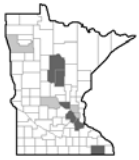
Acadian Flycatcher — Observed in Wright, Nicollet, Scott, Dakota, Rice, Fillmore, Houston.

Alder Flycatcher — Reported in 18 counties as far south as a line through Clay, Stearns, Anoka; plus 6/2 Rice TFB, 6/4 Hennepin SLC, 6/6 Dakota ADS, 6/11 Carver RMD, 6/22 Pope M.C.B.S.

Willow Flycatcher — Record-high number of reports. Seen in 26 counties as far north as a line through Wilkin, Todd, Morrison, Pine; plus 6/19 Carlton RBJ, 6/19 St. Louis (at the southern edge of the county) †RBJ.

Least Flycatcher — Record-high number of reports (though several observers noted fewer numbers); seen in 51 counties statewide.

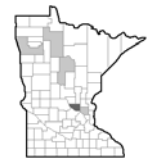
Eastern Phoebe — Many reports, similar to 2000; found in 55 counties throughout state.



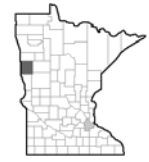
Great Crested Flycatcher — Most reports since 1988; seen in 60 counties statewide.

Western Kingbird — Observed in 12 western counties plus Hubbard, Sherburne, Anoka, Carver; peak count 7/27 Sherburne (13) REH.

Eastern Kingbird — Reported in 62 counties throughout state.

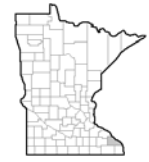


Loggerhead Shrike — All reports: 6/3–22 Pope (no location) M.C.B.S., 6/15 Big Stone (along county road 67) PHS, 6/16 and 6/28 Rice (near Cannon City) TFB, 6/20 Mower (south of Austin) RJe, 6/25 – 7/22 Clay (2 adults and nest with 3+ young at Felton Prairie) TAT *et al.*, 6/29 – 7/20 Dakota (max. 12 in north-central portion of county) ES *et al.*, 7/14 Wilkin (near Clay Co. line) MO, 7/18 and 7/30 Otter Tail (max. 2 in Western Twp.) DTT, SMT, SPM; plus Blue Earth (no date or location) KRE.

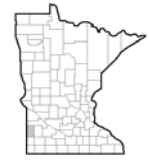


WHITE-EYED VIREO — Individual observed 7/13+ Winona (Great River Bluffs S.P.) CRG, JWH, †CBe †PHS; last reported early August (CBe).

Bell's Vireo — Record-high number of reports; 6/3 and 6/30 Wabasha (McCarthy L. W.M.A) PHS, JPE, 6/5 – 7/27 Winona (max. 3 at Great River Bluffs S.P.) CAS *et al.*, 6/6 and 6/8 Blue Earth (Minneopa S.P., same location as past five years) MJF, 6/8 Olmsted (Chester Woods) *fide* AXH, 6/8 **Meeker** (Manannah Twp.) †DMF, 6/10–15 Dakota (max. 2 at Black Dog Preserve) RMD, FTM *et al.*, 6/22 and 7/4 Waseca (max. 2 at Otisco W.M.A.) JPS, 6/29 **Mower** (Taopi) JPE.



Yellow-throated Vireo — Many reports, similar to previous three years. Seen in 40 counties in all regions, including Carlton and St. Louis in the Northeast, Yellow Medicine and Lincoln in the Southwest.



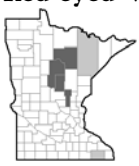
Blue-headed Vireo — Observed in seven North-central and Northeast counties plus 6/29 Mille Lacs (no location) N.R.R.I., 6/30

Pine (Nickerson Bog) KWR.

Warbling Vireo — Most reports since 1987. Found in 50 counties statewide; new nesting record in *Sherburne* PLJ.

Philadelphia Vireo — Reported in Lake and Cook; plus late migrant 6/1 Isanti REH.

Red-eyed Vireo — Record-high number of reports; seen in 61 counties statewide.

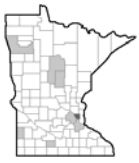


Gray Jay — Usual number of reports. Observed in eight North-central and Northeast counties.

Blue Jay — Seen in 66 counties throughout state.

Black-billed Magpie — Reported in Kittson, Marshall, Polk, Red Lake, Lake of the Woods, Beltrami, St. Louis.

American Crow — Observed in 70 counties statewide.

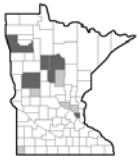


Common Raven — Reported in ten North-central and Northeast counties plus Marshall, Todd, Pine, Anoka.

Horned Lark — Seen in 38 counties as far north as a line through Marshall, Wadena, Isanti, Washington.

Purple Martin — Observed in 45 counties statewide.

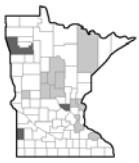
Tree Swallow — Found in 64 counties throughout state.



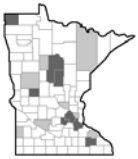
Northern Rough-winged Swallow — Reported in 38 counties statewide.

Bank Swallow — Most number of reports since 1990. Seen in 40 counties throughout the state; peak count 7/18 Traverse (**938**, representing the second-highest count on record) KJB.

Cliff Swallow — Record-high number of reports. Observed in 63 counties statewide; new nesting record in *Lincoln* RJS.

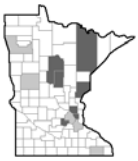


Barn Swallow — Many reports, similar to 2000; found in 74 counties throughout



state.

Black-capped Chickadee — Seen in 63 counties statewide; new nesting record in *Pine* KWR.



Boreal Chickadee — Reported in Lake of the Woods, Beltrami, Itasca, Aitkin, St. Louis, Lake, Cook.

Tufted Titmouse — Observed in Winona, Fillmore, Houston.

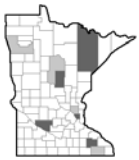
Red-breasted Nuthatch — Found in 12 North-central and Northeast counties plus Pine, Kanabec, Stearns, Washington.

White-breasted Nuthatch — Seen in 58 counties statewide.

Brown Creeper — Observed in seven North-central and Northeast counties plus Pine, Hennepin, Washington.

Carolina Wren — An unprecedented **six** summer records: 6/2 Steele (Owatonna) †DSH, 6/3 Winona (Winona — possibly the same bird discovered in spring, see spring report) PHS, 7/2 Ramsey (St. Paul) †NSp, 7/22 Mower (Austin — possibly the same bird discovered in winter, see winter report) RJe, 7/22 Hennepin (Cedar L.) †SLC, 7/24 Winona (Dakota) FZL.

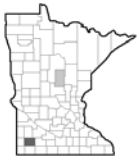
House Wren — Seen in 63 counties statewide; new nesting record in *Renville* RJS.



Winter Wren — Observed in ten North-central and Northeast counties plus Otter Tail, Pine.

Sedge Wren — Reported in 51 counties statewide.

Marsh Wren — Record number of reports; seen in 49 counties in all regions, including 6/16 Cook (Lockport breeding bird survey) JCG. New nesting record in *Murray* RJS.

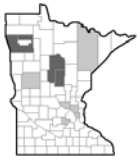


Golden-crowned Kinglet — Reported in eight North-central and Northeast counties plus Pine.

Ruby-crowned Kinglet — Seen in Lake of the Woods, Itasca, St. Louis, Lake, Cook; plus 6/29 Mille Lacs N.R.R.I.

Blue-gray Gnatcatcher — Observed in 25 counties as far north and west as a line through Chisago, Cass, Hubbard, Pope, Blue Earth, Freeborn.

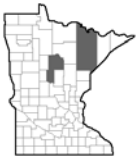
Eastern Bluebird — Most reports since 1987; seen in 62 counties statewide.



Veery — Seen in 36 counties as far south as a line through Clay, Pope, Rice, Houston.

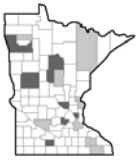
Swainson's Thrush — Reported in Itasca, St. Louis, Lake, Cook; plus late migrant 6/4 Hennepin SLC.

Hermit Thrush — Observed in 10 North-central and Northeast counties plus Pine, Mille Lacs; also 6/15 and 7/17 Washington (max. 3 singing at Falls Creek S.N.A.) DCZ, KJB.

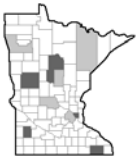


Wood Thrush — Reported in 32 counties as far west as Roseau, Clay, Pope, Yellow Medicine, Jackson; and as far northeast as Lake.

American Robin — Seen in 74 counties statewide.

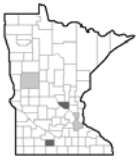


Gray Catbird — Observed in 61 counties throughout state; new nesting record in *Lyon* RJS.

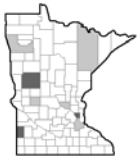


Northern Mockingbird — All observations: 6/24 Cass (near Whipholt) *fide* AXH, 6/29 **Fillmore** (Forestville S.P.) JPE, 6/29 – 7/29 *Dakota* (new county nesting record; four downy young found in nest near Empire) ES, JPM *et al.*

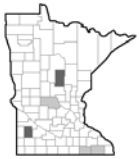
Brown Thrasher — Found in 49 counties statewide.



European Starling — Reported in 66 counties throughout state; new nesting record in *Lincoln* RJS.



Cedar Waxwing — Record-high number of reports. Seen in 64 counties statewide; new nesting record in *Lyon* RWM.

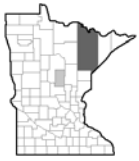


Blue-winged Warbler — Seen in 11 Southeast and East-central counties as far north as Isanti; plus Todd, Wright, Carver, Scott, Rice, Blue Earth. "Brewster's" hybrid 6/2 Washington (male) TAT, 6/22 Anoka JLH.

Golden-winged Warbler — Reported in 17 counties as far west and south as a line through Beltrami, Becker, Todd, Sherburne, Anoka; new nesting record in *Lake* DAG.

Tennessee Warbler — Record-high number of reports due to numerous late/early migrants. Seen in Lake of the Woods, Beltrami, Aitkin, St. Louis, Lake, Cook; plus migrants in 11 counties away from breeding range. Late migrants 6/2 Marshall, Clay and Scott; early migrant 7/24 Hennepin (adult found dead) *fide* AXH.

Nashville Warbler — Reported in 11 North-central and Northeast counties plus Becker, Otter Tail, Todd, Mille Lacs, Pine, Isanti; also 6/25 Ramsey *fide* AXH, 7/27 Clay GEN.



Northern Parula — Seen in nine North-central and Northeast counties plus Becker.

Yellow Warbler — Record-high number of reports; seen in 62 counties statewide.

Chestnut-sided Warbler — Found in 21 counties as far west and south as a line through Lake of the Woods, Todd, Stearns, Anoka; plus 6/6 Dakota ADS, 6/15 Scott ADS.

Magnolia Warbler — Reported in Cass, Itasca, St. Louis, Lake, Cook, Carlton, Pine.

Cape May Warbler — Observed in Becker, Itasca, St. Louis, Lake, Cook, Carlton.

Black-throated Blue Warbler — Heard and seen at 30 locations along survey route in Lake and Cook counties MWS; also reported in St. Louis, 6/1 Marshall (adult male at Agassiz N.W.R.) JMJ, 6/3 Hennepin (singing male at Cedar L.) SLC.

Yellow-rumped Warbler — Reported in ten North-central and Northeast counties plus Marshall, Pennington, Mille Lacs, Pine; also 6/15 Sherburne TAT, 6/15 Anoka (Carlos Avery W.M.A.) DCZ, 6/19 Otter Tail RPR, 7/16 Anoka (2 on territory at Linwood L. for 4th year) KJB.

Black-throated Green Warbler — Observed in nine North-central and Northeast counties plus Becker, Pine; also 6/6 Ramsey REH, 6/8 Washington DFN.

Blackburnian Warbler — More reports than usual. Seen in ten North-central and Northeast counties plus Roseau, Marshall, Becker, Pine; also **6/5** Ramsey (male) NSp.

Pine Warbler — Record-high number of reports. Seen in 11 North-central and Northeast counties (including Lake and Cook) plus Becker, Stearns, Morrison, Sherburne, Pine, Chisago, Anoka, Washington, Ramsey.

Palm Warbler — Reported in Marshall, Beltrami, Itasca, Cass, St. Louis, Lake, Carlton.

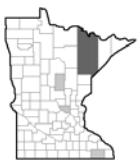
Bay-breasted Warbler — Only report: singing male along Lima Grade Rd. in Cook Co. KRE.

Blackpoll Warbler — All reports: 6/1 Cass DRu, 6/2 Marshall JMJ.

Cerulean Warbler — Most reports since 1995. Seen in 11 counties within normal range, as far north as Mille Lacs; plus 6/6–22 Pope M.C.B.S., 6/9 Otter Tail SPM, 6/15 Kandiyohi (Sibley S.P.) DFN.

Black-and-white Warbler — Reported in 21 counties as far west and south as a line through Marshall, Otter Tail, Hennepin; plus 6/1 Meeker DMF.

American Redstart — Observed in 46 counties as far west and south as a line through Clay, Pope, Kandiyohi, Freeborn; plus 6/25 Jackson CRM.



Prothonotary Warbler — Reported in Chisago, Hennepin, Scott, Dakota, Goodhue, Winona.

Ovenbird — Record-high number of reports. Seen in 44 counties as far west as Polk, Otter Tail, Pope, Yellow Medicine; plus 6/12 Lincoln RBJ.

Northern Waterthrush — Observed in seven North-central and Northeast counties plus Pine; also 6/15 Anoka (singing at Boot Lake S.N.A.) DCZ, 6/19 Otter Tail

RPR.

Louisiana Waterthrush — All reports:

6/2 Houston PHS, 6/2 and 6/15 Washington (max. 4 at three separate locations) TAT *et al.*, 6/28 Fillmore (Shattuck Creek) NBO, 6/29 Pine (Kettle R. near Sandstone) N.R.R.I., 7/10 Winona OWB.

Kentucky Warbler — Two separate territorial males present through 7/12 at Murphy-Hanrehan Park in Scott and Dakota counties BAF; also reported 6/9 **Clay** (Moorhead) †DDW, 6/8–29 Blue Earth (male originally discovered in mid-May at Williams Nature Center) CRM *et al.*

Connecticut Warbler — Observed in eight North-central and Northeast counties plus Roseau, Pine.

Mourning Warbler — Record-high number of reports. Seen in 20 counties as far west as Becker and as far south as Stearns, Hennepin, Washington; plus 6/1 Dakota JPM, 6/1 Freeborn AEB, 6/2 Clay RHO, 6/5 Rice TFB, 6/12 Carver RMD, 6/13 Olmsted CBe, 6/15 Winona CBr, 6/17 Scott RMD. **Note**: there has been evidence for several years that this species may be a scarce summer resident as far southeast as Winona Co. (although the regular presence of late spring migrants confuses the issue). Please continue to report dates from this area, and if possible, follow up on territorial birds.

Common Yellowthroat — Seen in 67

counties statewide; new nesting record in *Yellow Medicine* RJS.

Hooded Warbler — Several reports: 6/1

Carver (2 singing at Carver Park Reserve) †RMD *et al.*, 6/2 – 7/5 Scott and Dakota (14 territorial males, one nest, and one recently-fledged brood at Murphy-Hanrehan Park) BAF *et al.*, 7/4 **Pine** (male at St. Croix S.P.) †MSB, 7/29 Anoka (singing at same Linwood L. territory as last 3 years) KJB.

Wilson's Warbler — All reports: 6/2 Marshall JMJ, 6/21 Lake (3 singing males along Whyte Road) SGW, Lake (singing male on several June dates at Greenwood Creek — different location from Whyte Road) KRE.

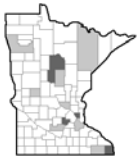
Canada Warbler — Found in Cass, Itasca, St. Louis, Lake, Cook, Aitkin, Carlton, Mille Lacs, Pine.

Scarlet Tanager — Observed in 42 counties in all regions, but only Yellow Medicine in Southwest.

Eastern Towhee — Record-high number

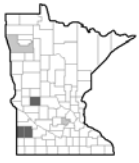
of reports. Seen in 21 counties as far northeast as a line through Beltrami, Aitkin, Pine and as far west as a line through Beltrami, Wadena, Stearns, Blue Earth; plus 6/21 Jackson DFN, 6/23 Yellow Medicine DFN.

Chipping Sparrow — Recorded in 67



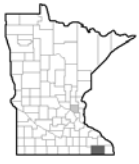
counties statewide; new nesting record in *Houston* KAK.

Clay-colored Sparrow — Seen in 44



counties as far south as Pipestone, Blue Earth, Steele; plus 7/23 Fillmore RBJ. New nesting records in *Lincoln* RJS, *Lyon* RJS.

Field Sparrow — Observed in 34 southern



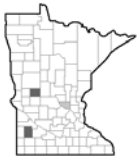
counties plus Otter Tail, Clay; new nesting record in *Fillmore* NBO.

Vesper Sparrow — Seen in 38 counties as far north as a line through Polk, Beltrami, Chisago.

Lark Sparrow — New nesting records in *Sherburne* PLJ, *Hennepin* SLC, *Scott* RMD; also observed in Polk, Pennington, Yellow Medicine, Stearns, Isanti, Anoka, Carver, Sibley, Le Sueur, Dakota, Wabasha.

Savannah Sparrow — Reported in 51 counties statewide.

Grasshopper Sparrow — Most reports since 1989; found in 34 counties in all regions except North-central (but only Carlton in Northeast). New nesting records in *Pope* MSS, *Lyon* RJS.



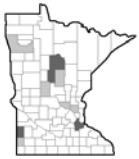
BAIRD'S SPARROW — Only the third summer that this species has been reported in the past ten years: 6/18 – 7/28+ Polk (Glacial Ridge Project) †JPR, ph. JJS, †PCC, †PHS, m.obs., and different individual 7/14 Polk (section 29, Tilden Twp.) †JPR.

Henslow's Sparrow — All reports: 6/1 Washington (2 at Afton S.P.) TAT, 6/3–4 **Pope** (no location) M.C.B.S., 6/5 and 7/13 Winona (Great River Bluffs S.P.) CAS, CRG, 6/28 and 6/30 Fillmore (Hvoslef W.M.A.) NBO *et al.*

LeConte's Sparrow — Reported in 13 counties as far south as a line through Clay, Wadena, Pine.

Nelson's Sharp-tailed Sparrow — Observed in Polk, Wilkin, Traverse, and Aitkin.

Song Sparrow — Seen in 65 counties statewide; new nesting record in *Lincoln* RJS.



Lincoln's Sparrow — Reported in Lake of the Woods, Cass, Aitkin, Carlton, St. Louis, Lake.

Swamp Sparrow — Most reports since 1988; found in 52 counties throughout state.

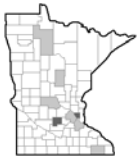
White-throated Sparrow — Observed in 11 North-central and Northeast counties plus Otter Tail, Mille Lacs; also **7/24** Meeker DMF.

Harris's Sparrow — Third consecutive summer with one or more records. Two reports, possibly the same bird (only a few miles apart): 6/2 Stearns (St. Cloud) PCC, 6/7 Stearns (St. Joseph Twp.) PCC.

Dark-eyed Junco — Reported in Lake of the Woods, Beltrami, St. Louis, Lake.

Chestnut-collared Longspur — Only report from traditional breeding site in Clay Co.

Northern Cardinal — Many reports, similar to 2000. Seen in 45 counties as far north as Polk, Beltrami, St. Louis; plus new county record 7/14 **Traverse** PCC, PHS.



Rose-breasted Grosbeak — Record-high number of reports; observed in 58 counties statewide.

Blue Grosbeak — Only reports from

Rock, Pipestone.

LAZULI BUNTING — Following an unprecedented number of reports in May (see spring report), one summer record: **6/14–15** Kandiyohi (near Willmar — probably the same bird discovered 5/23 at feeder next door) *fide* RSF †PHS.

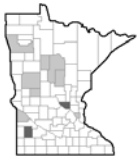
Indigo Bunting — Most reports since 1988; seen in 57 counties statewide.

PAINTED BUNTING — An identifiable photograph was taken **6/5** in northern **St. Louis** (Wuori Township.) ph. DJ; the bird was apparently present in the area 5/31 – 6/5 *fide* DRB. This represents the eleventh state record.

Dickcissel — Reported from 48 counties, rivalling the recent peaks of 1995 and 2000 but falling well short of the huge irruption in 1988 (73 counties); seen as far north as a line through Polk, Red Lake, Wadena, Morrison, and Pine counties .

Bobolink — Observed in 57 counties throughout state.

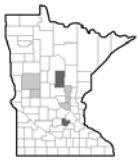
Red-winged Blackbird — Reported in 73 counties statewide; new nesting records in *Lyon* RJS, *Sherburne* PLJ.



Eastern Meadowlark — Seen in 31 counties as far north and west as Otter Tail, and Pope counties.

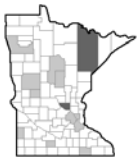
Western Meadowlark — Observed in 38 counties in all regions except Northeast and Southeast; new nesting record in *Pope* MSS.

Yellow-headed Blackbird — Most reports since 1989; seen in 55 counties in all regions, including St. Louis and Lake in Northeast. New nesting record in *Carver* RMD.



Brewer's Blackbird — Reported in 27 counties as far south as Brown, Blue Earth, Wabasha.

Common Grackle — Seen in 71 counties statewide; new nesting record in *Sherburne* PLJ.



GREAT-TAILED GRACKLE — Presumably the same individuals from spring reported 7/17 Jackson (3 in Minneota Twp.) †OLJ.

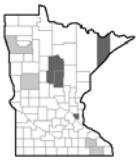
Brown-headed Cowbird — Record-high number of reports; seen in 68 counties throughout state. Peak count 7/18 Traverse (**370**) KJB; parasitized species included Eastern Phoebe, Red-eyed Vireo, Yellow Warbler, Eastern Towhee, Chipping Sparrow, Song Sparrow, Red-winged Blackbird, and House Finch.

Orchard Oriole — Observed in 26 counties as far north as a line through Polk, Red Lake, Hubbard, Washington.

Baltimore Oriole — Record-high number of reports; found in 67 counties statewide.

Purple Finch — Reported in 12 North-central and Northeast counties plus Red Lake, Mille Lacs, Pine.

House Finch — Observed in 53 counties throughout state; new nesting records in *Cass* MRN, *Lake* N.R.R.I.

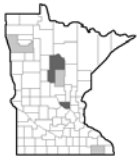


Red Crossbill — All reports: 6/13–21 Becker (3 at Tamarac N.W.R.) BAB, 6/21 Lake (Spruce Road) CBe; plus June observations (no specific date) in Marshall (Old Mill S.P.) *fide* BAB and Cook DSp.

White-winged Crossbill — All reports: 6/15 and 7/11 Lake SGW, N.R.R.I., 6/28 and 7/27 St. Louis (Sax-Zim bog area) KRE; also observed migrating along north shore of L. Superior during last week in July m.obs.

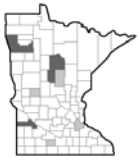
Pine Siskin — Seen in nine northern counties plus 6/4 Ramsey NSp, 6/28 Rice TFB.

American Goldfinch — Reported in 69 counties statewide; new nesting record in *Cass* MRN.



Evening Grosbeak — Observed in Becker, Clearwater, Beltrami, Cass, Itasca, Aitkin, St. Louis, Lake, and Cook.

House Sparrow — Reported in 58 counties throughout state; new nesting records in *Polk* EEF, *Cass* MRN, *Yellow Medicine* RJS.



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MM	Mike Murphy
MN	Mark Newstrom
MO	Mark Otnes
MRN	Michael R. North
MSB	Matthew S. Berg
MSS	Mark Sparky Stensaas
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MWy	Mary Wyatt
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NED	Nelvina E. De Kam
NFT	Nels F. Thompson
NSp	Nancy Sparrow
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OWB	O. William Bruins
PA	Phil Alban
PAN	Patricia A. Newman
PCC	Philip C. Chu
PDH	Paul D. Holtz
PE	Peter Erickson
PEB	Paul E. Budde
PHR	Patricia H. Rusch
PHS	Peder H. Svingen
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SJR	Steve J. Roman
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SL	Sharon Lind
SLC	Steve L. Carlson
SMT	Sandy M. Thimgan
SPM	Steve P. Millard
SPS	Steve P. Stucker
STW	Sylvia T. Winkelman
SWe	Steve Weston
TAT	Tom A. Tustison
TF	Tom Flemke
TFB	Tom F. Boevers
THo	Tim Houghton
TMc	Tom McCann
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TPW	Terry P. Wiens
TSm	Tony Smith
TSo	Tom Soulen
WC	William Carlson
WMS	William M. Stauffer

Abbreviations

D.N.R.	Minnesota Deptartment of Natural Resources
M.C.B.S.	Minnesota County Biological Survey
N.R.R.I.	Natural Resources Research Institute
m.obs.	many observers

Proceedings of the Minnesota Ornithologists' Union Records Committee

Kim R. Eckert, MOURC Chairman

The following records were voted on August – December 2002 and found to be Acceptable.

• White-faced Ibis (two individuals), 12–15 July 2002, Cedar Mills Township, Meeker County (record #2002-72, vote 7–0).

Only one of the two individuals reported had visible white feathering around the face, but both showed red eyes and facial skin.

• *Plegadis* ibis, 24 August 2002, near Dovray, Murray County (record #2002-82, vote 7–0).

As a juvenile bird, this ibis was not possible to identify in the field.

• *Plegadis* ibis, 10–12 October 2002, Hamden Slough National Wildlife Refuge, Becker County (record #2002-73, vote 7–0).

This ibis was initially reported as a

***Plegadis* ibis, 12 October 2002, Hamden Slough N.W.R., Becker County. Photo by Peder Svingen.**

Glossy, but further observations determined that it was an unidentified juvenile ibis.

• Swallow-tailed Kite, late August 2002, near Vermillion, Dakota County and near Elko, Scott County (record #2002-83, vote 7–0).

Although the locations of the two documented observations are about 15 miles apart, indications are this was probably the same individual at both locations. The written descriptions from two independent observers are both somewhat incomplete, but each observer provided good sketches of this kite, a species which would be difficult to confuse with any other bird.

• Long-billed Curlew, 19–28 July 2002, Lino Lakes, Anoka County (record #2002-84, vote 7–0.

There was some initial confusion about whether this was a Whimbrel or a Long-billed Curlew due to the long distances between the bird and most of the observers. However, the identification was confirmed by some later observers who were able to get closer views.

• Ruff, 7 August 2002, Waterford Township, Dakota County (record #2002-62, vote 6–1).

This individual was apparently an adult male with a mostly whitish head.

• Black-headed Gull, 20 September – 17 October 2002, Spirit Lake, Jackson County (record #2002-85, vote 7–0).

This adult bird represents the fifth consecutive year that one or two adult Black-headed Gulls have been documented at this location. Note that the only accepted records of this species come from Jackson County; besides this Spirit Lake location, the other records come from Grover's Lake in 1998 and Heron Lake in 1986.

• Eurasian Collared-Dove, June – July 2002, Amboy, Blue Earth County (record #2002-76, vote 6–1).

This bird was seen by many observers, with documentation including both the diagnostic vocalization and the pattern of the underside of the outer rectrices.

• Eurasian Collared-Dove, 13 April – 23 June 2002, Herman, Grant County (record #2002-41, vote 7–0).

Though the documentation from the original observer does not entirely preclude the possibility of Ringed Turtle-Dove, a subsequent description and photos from another observer confirmed the identification.

• White-eyed Vireo, 14 May 2002, Chester Woods County Park, Olmsted County (record #2002-86, vote 6–1).

Although the distinctive song of this species was apparently never heard, the vireo was seen clearly enough by several observers.

• White-eyed Vireo, 13 July – August 2002, Great River Bluffs State Park, Winona County (record #2002-87, vote 7–0).

Curiously, this vireo also was never heard to vocalize, but it was seen by several observers over a period of a few weeks.

• Rock Wren, 4–9 October 2002, Bloomington, Hennepin County (record #2002-77, vote 7–0).

This wren was only seen by a lone observer with no previous experience with this species, but her documentation is complete and entirely convincing.

• Prairie Warbler (two individuals), 20 April 2002, Coon Rapids Dam Regional Park, Hennepin County (record #2002-49; vote 5–2 on first individual; vote 0–7, Not Acceptable on second individual).

The observer who originally found the bird(s) provided an adequate description of a singing male. A second individual present at the time was thought to have been a female Prairie Warbler, but both the observation and the description were too brief, and this second bird was not accepted. Other observers also reported seeing a Prairie Warbler at this same location through at least 25 April, but none of these reports could be accepted since none was accompanied by adequate documentation.

• Black-throated Sparrow, 16–17 April 2002, Moorhead, Clay County (record #2002-55, vote 7–0, ***The Loon*** 74:238–239).

This distinctive adult was seen by many observers and photographed. Also note it was in the same yard where the Black-headed Grosbeak appeared a month later

Long-billed Curlew, 20 July 2002, Lino Lakes, Anoka County. Photo by Chris Fagyl.

(record 2002-52).

• Baird's Sparrow, 18 June – July 2002, Tilden Township, Polk County (record #2002-51, vote 7–0, ***The Loon*** 75:52–53).

This individual was not only seen by many observers and photographed, its distinctive song was recorded.

• Baird's Sparrow, 14 July 2002, Polk County (record #2002-78, vote 5–2).

This bird was found at a different location by the same observer who had discovered the first Polk County Baird's Sparrow. The documentation of this second bird was not as complete, but its diagnostic song was heard.

• Golden-crowned Sparrow, 27 December 2001 – 1 May 2002, Grand Marais, Cook County (record #2002-67, vote 6–1).

This well-documented immature was present at a feeder for at least four months, but its occurrence was not revealed (apparently at the request of the homeowners) until after the bird was gone.

• Black-headed Grosbeak, 24–26 May 2002, Moorhead, Clay County (record #2002-52, vote 7–0, ***The Loon*** 74:240–241).

As with the Black-throated Sparrow (record 2002-55), this male was seen by many observers and photographed in the same yard where the sparrow appeared.

• Lazuli Bunting, 18 May 2001, Climax, Polk County (record #2002-80, vote 7–0).

This male is satisfactorily documented by a lone photograph, although no written description was provided.

• Lazuli Bunting, 16 May 2002, Louisville Swamp, Scott County (record #2002-56, vote 7–0).

This sight record of a male was the first of four records of this Casual species in May 2002.

• Lazuli Bunting, 26 May 2002, near Battle Lake, Otter Tail County (record #2002-57, vote 7–0).

This male is documented by both photographs and extensive written descriptions.

• Lazuli Bunting, 29 May 2002, Star Lake, Otter Tail County (record #2002-68, vote 7–0).

There is no indication or reason to assume that this male was the same individual as the one seen in the same county three days earlier.

• Lazuli Bunting, 29 May – 15 June 2002, near Willmar, Kandiyohi County (record #2002-69, vote 6–1).

The documentation of this male includes a photograph.

• Painted Bunting, 24–28 April 2002, near Aitkin, Aitkin County (record #2002-54, vote 7–0, ***The Loon*** 74:237–238).

This male was seen by many observers and photographed.

• Painted Bunting, 5 June 2002, Wuori Township, St. Louis County (record #2002-53, vote 7–0).

There was no written description provided for this male, but a single photograph provides adequate documentation.

• Great-tailed Grackle (two individuals), 10–12 May 2002, Slayton Township, Murray County (record #2002-59, vote 7–0).

Both individuals were males, and both were accepted. One of these was singing (which some consider significant, so that the remote possibility of Boat-tailed Grackle from the Atlantic coast is precluded).

• Great-tailed Grackle, 20 May 2002, Swan Lake, Nicollet County (record

#2002-58; vote 6–1 as unidentified Great-tailed/Boat-tailed; vote 4–3, Not Acceptable as Great-tailed).

The description of this lone silent male was accepted as an unidentified Great-tailed/Boat-tailed grackle. Since this species is still currently considered Accidental, a 6–1 vote is needed for acceptance.

• Great-tailed Grackle, 27 May 2002, near Lynd, Lyon County (record #2002-70, vote 7–0).

This report was of a lone singing male.

• Great-tailed Grackle (11 individuals), 20 September – 13 October 2002, Minneota Township, Jackson County (record #2002-88, vote 6–1).

None of the 11 individuals was heard singing, with the lone dissenting voter only willing to accept them as an unidentified Great-tailed/Boat-tailed grackles.

• Scott's Oriole, 20 March – 23 April 2002, near Monticello, Wright County (record #2002-60, vote 7–0).

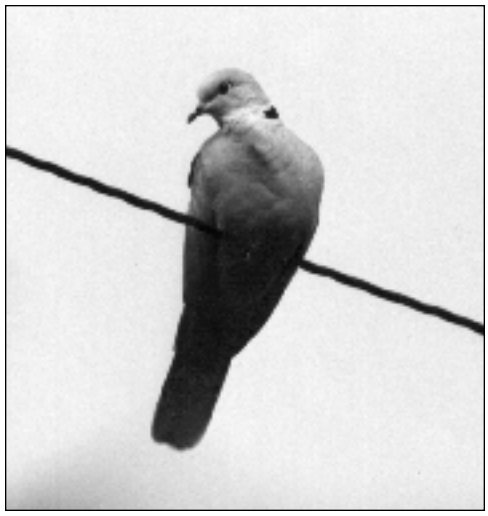
The photographs documenting this male at a feeder were not received until after the bird was gone. Note the overlap in dates with the Olmsted County oriole, confirming that these were different individuals.

• Scott's Oriole, 17–21 April 2002, near Oronoco, Olmsted County (record #2002-61, vote 7–0, ***The Loon*** 74:189–191).

This male, also at a feeder, was seen by many observers and photographed.

II. The following records were voted on August – December 2002 and were found to be Not Acceptable. Also see the two Acceptable records above which in part involved a Not Acceptable vote: Prairie Warbler (2002-49) and Great-tailed Grackle (2002-58).

(It is important to be aware that a record which is not accepted only means the provided documentation was not complete or convincing enough to include the sighting in ***The Loon***, the journal of the MOU, or in the MOU's archives of bird records. Such a vote does not necessarily mean the observer misidentified the bird or that it cannot be included on one's personal list. In this sense, therefore, MOURC is only acting as an editor of the records submitted to the MOU.



Eurasian Collared-Dove, 23 June 2002, Herman, Grant County. Photo by Peder Svingen.

Also note a summary of the reasons why a record was not accepted are included. These are, of course, in no way intended to be critical of the observer. The only purpose is instructional: that is, to show the difficulties an observer had in identifying or documenting a bird, so that these can be avoided by other observers when documenting future reports of this and similar species.)

• Smew, 6 November 2002, Island Lake, St. Louis County (record #2002-81, vote 7–0 on identification, vote 0–10 on wild origin).

The identification of this adult female shot by a duck hunter, confirmed by the photos taken of the bird, was straightforward and unanimously accepted. However, the record was not accepted on the basis of origin, with the unanimous vote determining that the duck had most likely escaped or been released from captivity. (Note that all ten MOURC members, the seven regular members plus the three alternates, vote on questions of origin.) Prior captivity is indicated by one of the duck's hind toes having been cut off (a practice of many waterfowl collectors) and

by the seriously frayed condition of the outer primaries and many of the rectrices.

• Ruff, 18 August 2002, Agassiz National Wildlife Refuge, Marshall County (record #2002-74, vote 4–3).

Although a majority voted to accept this record, a 5–2 vote is needed for acceptance. This was a difficult record to evaluate, with an inconclusive first-round vote and a discussion at a committee meeting before the final vote was taken. One of the primary reservations expressed about the record is that the bird was asleep almost the entire time of the observation, so that the bill and head pattern were only seen very briefly, and the tail and wing patterns were not seen at all. The overall size and shape of the bird is unclear, and the "yellow-orange" legs does not preclude the possibility of a yellowlegs.

• Ruff, 30 August 2002, Empire Township, Dakota County (record #2002-75, vote 0–7).

The identification by an observer experienced with this species may well have been correct, but the written description is very brief and incomplete. About the only feature described which suggests a Ruff and tends to eliminate other possibilities is the orange leg color, but the identification of an unusual species needs to be based on more than a single feature. Field notes were apparently written soon after the observation and would have strengthened the record, but they unfortunately were not provided.

• California Gull, 17 October 2001, near Lynd, Lyon County (record #2002-64, vote 0–7).

There is nothing in the written description of this juvenile gull to preclude the more likely possibility of a Herring Gull. The bicolored bill pattern as described could fit either a Herring or California gull, and the gull's overall size as described could also fit either species. Nothing else in the description indicates it was a California Gull more than any other species. Finally, this observer mentions in the documentation that field notes and a sketch were made during the observation, but neither was provided and both would have been helpful.

• Thayer's Gull, 8 April 2002, near Lynd, Lyon County (record #2002-63, vote 2–5).

There is nothing in the description indicating the condition of the plumage: that is, whether or not it was faded, worn, or bleached. And in the spring and summer it is common to see such abnormally pale Herring Gulls which bear an overall and close resemblance to paler gulls such as Thayer's (or even Glaucous or Iceland). Accordingly, those not accepting this record felt that the description may indeed fit a Thayer's Gull, but it also does not preclude a bleached or worn Herring Gull.

• Sprague's Pipit, 28 July 2002, Glacial Ridge National Wildlife Refuge, Polk County (record #2002-65, vote 2–5).

Although the written descriptions by the two observers generally tend to fit this species, they could also just as easily fit the more likely possibilities of a Vesper Sparrow or juvenile Horned Lark. There is no mention of the bill shape and color, and the Sprague's Pipit's distinctive body shape and behavior is not described.

• Yellow-throated Warbler, 25 May 2002, Lake Carlos State Park, Douglas County (record #2002-48, vote 1–6).

Those not accepting this record found the provided description to be incomplete and somewhat contradictory in places. The breast is described as white (not yellow), and the upperparts are described as having white stripes (such stripes are inconsistent with Yellow-throated Warbler). Also, the distinctive face pattern is never clearly described, and it was felt the description could also fit a Blackburnian Warbler.

• Lark Bunting, 13 May 2002, Crow Wing County (record #2002-50, vote 3–4).

This was a difficult record to evaluate, with an inconclusive first-round vote and a discussion taking place at a committee meeting before the final vote was taken. It was agreed the identification by the two experienced observers may have been correct, but only one of them provided documentation, and it is brief and incomplete. The size and shape of the bird is not given, and some not accepting the

record felt the description could also indicate a partial albino blackbird, which was apparently not considered as a possibility by the observers. Finally, the bird was observed as it perched "on the top of a small tree above a small pond in Crow Wing State Park," and such behavior and habitat would be quite atypical for a Lark Bunting.

• Baird's Sparrow (three individuals), June 2002, Felton Prairie, Clay County (record #2002-66, vote 0–7).

Three individuals were reported, but the plumage and song of only one of them is described, and this documentation is inconclusive. The song is described only as "three short notes and a high musical trill," but this is not clear enough to indicate Baird's Sparrow and eliminate other possibilities. And while most of the plumage description would be consistent with Baird's, it is stated there was no malar or mustachial markings, which does not fit this species (and would better describe a Grasshopper Sparrow).

• Harris's Sparrow, 27 July 2002, Sherburne National Wildlife Refuge, Sherburne County (record #2002-79, vote 4–3).

Although a majority voted to accept this record, a 5–2 vote is needed for acceptance. This was another difficult record, with an inconclusive first-round vote and a discussion at a committee meeting before the final vote was taken. The identification of this out-of-season sparrow may well have been correct, since the combination of pink bill and "necklace of black around its throat" does not seem consistent with any other species. However, there were reservations about this record, since the three observers were apparently unaware that a summer Harris's Sparrow is unusual and only casually reported it in passing, and since they had difficulty identifying it (even though they are relatively experienced and this is a relatively distinctive species).

• Great-tailed Grackle, 14 July 2002, near Hutchinson, McLeod County (record #2002-71, vote 2–5).

This female grackle perched on a utility wire may have been correctly identified, but it was seen without the use of any optics, and was only briefly viewed for a few seconds from a car traveling at highway speeds. Under such circumstances, it is very difficult to clearly and accurately discern field marks, especially on subtly plumaged birds such as female grackles or blackbirds. And when unusual species are involved, it is necessary to see them for more than just a few seconds from a moving car with a naked eye.

The efforts of all those observers who document reports of unusual species are appreciated, whether or not those records are accepted. Accordingly, the Committee acknowledges with thanks those who provided documentation for the records listed in this article: Bruce Baer, Dave Bartkey, Chris Benson, Andrew Bicek, Conny Brunell, Paul Budde, Dave Cahlander (3 records), Janet Chandler, Louis Claeson, Philip Chu (4 records), Bob Dunlap (2 records), Kim Eckert (3 records), Eddy & Judy Edwards, John Ellis (3 records), Chris Fagyal, Bruce Fall, Dan Floren, Colin Gjervold, Mike Hendrickson, Anthony Hertzel, Ken Hoffman, Dorothy Jalonen, Bob Janssen (2 records), Jeanie Joppru (2 records), Chuck Krulas, Jim Lind, Betty Loredo, Steve Millard, Mark Ochs, Bob O'Connor, Jerry Pruett, Ron Refsnider, John Richardson, Alma Ronningen, Roger Schroeder (2 records), Drew Smith, Jerry Smith, Jeff Stephenson (2 records), Shelley Steva, Peder Svingen (12 records), Dan & Sandy Thimgan, Leon Thoreson.

There were also other observers who documented records of Regular species which were not submitted for a vote to the Committee; although these records are not cited here, their documentations are also appreciated.

The Committee Chairman welcomes questions or comments from MOU members regarding any record in particular or our procedures in general. He can be contacted at the address below or by e-mail at <kreckert@cpinternet.com>.

Summary: 42 records voted on, 31 Acceptable, 11 Not Acceptable.

8255 Congdon Blvd., Duluth, MN 55804.

A Spring 2002 Goose Extravaganza

Karl J. Bardon

During March and April 2002, an exceptional number of western geese were seen in Minnesota. Many experienced observers in western Minnesota commented that they saw more Snow Geese and Greater White-fronted Geese this spring than they ever had before. I took advantage of this phenomenon and made numerous trips to western Minnesota to observe geese. The results of four of these trips are given in Table 1; on 22 March, 29 March, 3 April, and 11 April, the entire day was spent looking for and counting geese. Additional trips with considerably fewer geese seen are not included; by 22–25 April, when I journeyed from Jackson County north to Roseau County, only small numbers of geese remained in the state: 87 Greater White-fronted, 658 Snow, 2 Ross's, and 74 small Canada Geese. Interestingly, most of these geese were still in Jackson, Nobles and Lincoln counties.

The totals on the Hastings-Prescott Bird Count along the Mississippi River border between Minnesota and Wisconsin were 369 Snow Geese, 10 Ross's Geese, 579 Greater White-fronted Geese, and 5009 Canada Geese. This compares to only 33 Greater White-fronted and 35 Snow Geese last year. Interestingly, the count of Canada Geese is down considerably from last year, when 13,319 were counted.

Snow Goose

The main migration of Snow Geese is normally farther west from Minnesota, leaving the wintering grounds in Louisiana and Texas and moving through such favored locations as south-central Nebraska, Sand Lake NWR in South Dakota, the Devil's Lake region of North Dakota and Portage Plains in Manitoba (Bellrose 1976). Estimates of local concentrations along this route have recently numbered one million (2 March 1995 in Fillmore and Clay Counties, NE, and 8 April 1995 in Cass County, ND; *Field Notes* 49:268, 270).

By contrast, high counts for Snow Geese in Minnesota are often only in the low thousands during spring migration. During the last five springs, when peak counts were included in the seasonal report, the highest count was only 11,000 in Jackson County on 2 March 2000 (***The Loon*** 73:57–58). During the 1980s and early 1990s, high counts were not included in the seasonal report. During the 1960s and 1970s, high counts were often only 2,000–5,000 birds, with only three exceptions: 30,000 in Traverse County on 14 April 1979 (***The Loon*** 51:181), 50,000 in Nobles County on 22 March 1967 (***The Loon*** 39:87), and "many thousands" in Traverse County on 29 April 1961. During April 1942, W. Breckenridge and L. Jaques of the Bell Museum of Natural History estimated 50,000 Snow Geese at Mud Lake, Traverse County while obtaining material for one of the museum's habitat groups, and "great numbers" were said to pass through Big Stone and Traverse Counties each year in spring (*The Flicker* 13:20). During spring 1911, A. Jensen estimated hundreds of thousands of Snow Geese passed through the vicinity of Brown's Valley, Traverse County (Roberts 1932). Clearly, Mud Lake was a traditional stopover site for large numbers of geese, but degradation of the habitat apparently caused abandonment of this site in future years.

On 22 March 2002, I estimated 54,000 Snow Geese in Jackson and Nobles Counties. This included a single flock of 15,000 on Illinois Lake, and a wonderful

Date	22 Mar	29 Mar	2 Apr	3 Apr	10 Apr	11 Apr	Total
Location	Albert Lea to Worthington	Jackson, Cottonwood, Nobles	Lac Qui Parle	Big Stone, Stevens	Lyon, Lincoln	Big Stone, Swift, s. Traverse	
GWFG	7,900	4,002	1,562	11,469	1,437	2,421	28,791
SNGO	54,000	11,214	149	3,217	5,150	10,860	84,590
ROGO	93	205	29	51	179	134	691
CAGO	23,500	1,684	2,700	42,460	31	1,915	72,290
TOTAL	85,493	17,105	4,440	57,197	6,797	15,330	186,362

Table 1. Goose counts in western Minnesota during spring 2002.

flight of 24,000 "wavies" over Lake Bella as the birds flew across the state line into Iowa to feed. Only 9,294 of these birds remained the following week on 29 March 2002 when P. Jantscher counted in Jackson and Nobles Counties. During the weekend 5–7 April 2002, Dan Trauba estimated that 100,000 Snow Geese passed through the Lac Qui Parle WMA area, including 30,000–40,000 on Marsh Lake alone. On 8 April 2002, Bob Janssen and others estimated 50,000 Snow Geese in Lyon and Lincoln Counties including 25,000 at Anderson Lakes WMA, Lincoln County. By 10 April, my survey yielded only 5,150 Snow Geese in these two counties. From these estimates, it would appear that as many as 200,000 Snow Geese may have passed through southwestern Minnesota this spring.

High counts of Snow Geese apparently occur only from Traverse County southward, while relatively few pass through the northwest. Favoured locations include Heron and Round Lakes in Jackson County, the lakes around Worthington (especially Lake Ocheda) in Nobles County, various sites in Lincoln County, Lac Qui Parle WMA, and Mud Lake in Traverse County. A main migration corridor in Minnesota passes through the Heron Lake system and then directly over Talcot Lakes WMA. I have seen birds moving along this route in the past, and in spring 2002, large flights were seen along this route. For example, Phil Chu and I counted birds moving NW over Talcot Lakes WMA on 29 March and in only an hour or two had come up with 2766 White-fronted, 1499 Snow, 624 Canada, and 51 Ross's. Interestingly, this route takes the birds over Lincoln County and then directly to Sand Lake NWR, SD, but the origins of this flight are unknown.

Ross's Goose

With this many Snow Geese around, opportunities for identifying Ross's Geese were ample. My own counts of Ross's Geese indicate 3–7% of the Snow Goose flocks were Ross's (Table 2), which is similar to percentages obtained during the spring 2000 migration (***The Loon*** 72:248–249, 73:57–58). Only counts taken when the entire flock of Snow Geese could be scanned efficiently for Ross's Geese were given, and only counts taken from large flocks of Snow Geese were given since small flocks of white geese (e.g., 100 or less) often had a disproportionate number of Ross's.

Greater White-fronted Goose

The number of White-fronteds passing through the state was truly exceptional, and certainly numbered into the tens of thousands, but it is difficult to make an accurate estimate of the total number due to potential double-counting and overlap in sightings. It would appear the geese may have moved north leisurely, following the front edge of the snow/ice melt line, and perhaps only moving north 50-100 miles at a time. Although there is no solid evidence to support this theory, the temptation to count all flocks of White-fronted Geese as different individuals appears to be equally as hazardous.

The results of my own counts are given in Table 1, but even these counts may

Date	Location	County	Ross's Geese	Snow Geese	Percent Ross's
22-Mar	Worthington	Nobles	74	1000	7
29-Mar	Talcot Lake	Murray	51	1499	3
29-Mar	Sioux Valley	Jackson	39	750	3
29-Mar	Lake Ocheda	Nobles	101	2500	4
3-Apr	Co. 10	Big Stone	39	1400	3
10-Apr	Co. 2	Lyon	163	3300	5

Table 2. Ross's Goose counts in western Minnesota during spring 2002.

include some overlap in numbers. The largest single flocks were 3200 on Indian Lake, Nobles County and 2100 on Illinois Lake, Jackson County on 22 March. On 3 April 2002, I spent 11 hours surveying 140 miles of road in Big Stone County, counting all the geese I encountered. Fortunately, strong NW winds throughout the day kept the birds fairly sedentary, and flocks were not often seen in flight until later in the day when the geese began feeding in local fields. Many of the small lakes and wetlands in the southeastern portion of the county were partially open and filled with geese, and my results were 10,585 White-fronted Geese, 34,800 Canada Geese, 3100 Snow Geese, 43 Ross's Geese, and 766 Tundra Swans. These totals were entirely confined to an area east of Hwy 75, north of Hwy 12, and south of County 6 (an area of 147 square miles). I checked up to Barry and Graceville, but no geese were seen, and the lakes tended to be frozen rather than open, suggesting this concentration of geese occurred at the edge of the snow/ice melt line.

Previous high counts in the state have been 1500 individuals on 11 March 2000 in Freeborn County (***The Loon*** 72:206), 4 March 2000 near Shaokatan WMA, Lincoln County (***The Loon*** 72:206), and 4 April 1992 at Salt Lake, Lac Qui Parle County (***The Loon*** 65:45), with a remarkable 3,000 estimated over Big Stone NWR on 12 April 1973 (***The Loon*** 45:124) and 3415 counted in Big Stone County on 14 April 2001 (***The Loon*** 73:206). Clearly, Big Stone County is a focal point for this species' migration!

Most Greater White-fronted Geese appear to follow the migration corridor already described for Snow Goose. High counts gleaned from *North American Birds* (and its predecessors) include a state high count of 2500 at Anderson Lake WMA, Illinois on 8 March 2000 (54:287), 10,000 along the Big Sioux River, Lyon County, Iowa (adjacent to Rock County, MN) on 17 March 1996 (50:287), 20,000 at Quivira NWR, Kansas on 2 March 1996 (50:297), and 2142 at Perkins, Nebraska on 12 March 1994.

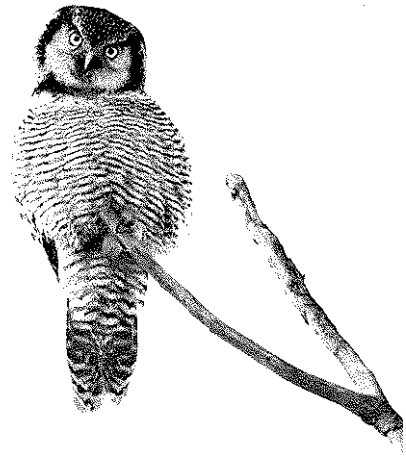
Canada Goose

Most observers probably did not attempt to count the number of Canada Geese moving through the state, so an estimate of the total number cannot be given. My own observations indicate a significant percentage of the flocks of Canada Geese moving through the state was of the small and medium forms, with perhaps 10–20% Richardson's (*Branta canadensis hutchinsii*), distinguished by their very pale breast and light brown backs, and slightly smaller overall size than Greater White-fronted Geese, but with a considerably smaller bill (similar in size to a Ross's Goose bill). My earliest observation of Richardson's was on 6 March 2002 at Black Dog Lake, while my last observation was on 22 May 2002 in Big Stone County. The balance of the Canada Geese moving through western MN was probably the Interior form (*B. c. interior*), which averages slightly larger than Greater White-fronted Goose but has a similarly sized bill, while a relatively small percentage was of the largest form, Giant Canada Goose (*B. c. maxima*).

13073 Hastings St. NE, Blaine, MN 55449.

BIRDING BY HINDSIGHT

A Second Look at Measurements



Kim R. Eckert

I frequently notice statements like these when reading through birders' accounts of their observations: The wren on the fence post was five feet away. A pipit stood on the road a mere ten feet away. The grackle on the telephone wire was ten feet from the observer's car. There was only a 25-foot distance between the observer and the kite. The ibis stood in the marsh not more than 40 feet away.

Needless to say, I am jealous. How are these stealthy birders able to get so close to these birds? Not only that, I tend to note in many of these accounts that observers spend 20 or 30 minutes or more watching an individual bird which may be marginally significant but not hard to identify or exceptionally rare. Where do they get the patience?

I also seem to be arithmetically challenged. When in a group of birders watching a concentration of migrating geese or shorebirds, I may hear someone calling out an estimate of thousands of birds being present. Meanwhile, after scanning over the flock, the best I can come up with is typically a half or a third of what others are seeing.

Of course, all kidding aside, I'm no better or worse than other birders at judging distance, time, or numbers. It's just natural, I guess, for birders to underestimate distances and to overestimate both the passage of time and the magnitude of an impressive flock of birds.

For example, the next time your birding group spots a kestrel or some buteo perched in a distant tree, first have everyone estimate how far away it is, and then drive up to it measuring the actual distance with your car's odometer. I'd be willing to bet if that raptor is, say, a half mile (880 yards) away, several of the guesses would be around 200 or 300 yards.

Or, try approaching to within five feet of a wren, within ten feet of a pipit, or to find a telephone wire only ten feet from the driving lane of a highway. I'm not sure any of this is possible. Get out a tape measure and see how far it is from your window to your bird feeder or to that robin foraging in the far corner of your yard. Don't be surprised if what you thought was a distance of 10 or 20 feet is actually 50 or more.

Next, as time goes by, get out a watch and actually time yourself watching a bird until you're finished studying its plumage or simply appreciating its presence. Does 20 or 30 minutes pass by, as is often stated in the reports I read? Or is it more like two or three minutes? Try watching a bird for a few minutes, or even just 30 seconds — it's not that easy to do. In reality, these are significant chunks of time if devoted to studying a bird.

As far as the actual numbers of birds we see, I'm not so sure our guesstimates have a pattern of being too high or too low. I suspect that we might overestimate numbers when it's a single impressive flock viewed at one sitting. (I remember

a few years ago when a certain lake was drawn down and attracted lots of shorebirds: many observers reported a few thousand birds there — actual and careful counts were never more than a thousand.) But at the same time I think we may tend to be too conservative when guessing, for example, how many raptors we saw flying over Hawk Ridge during an extended period of a day or several hours.

Now, perhaps all this is irrelevant as we work on improving our identification and documentation skills. I'm certainly unaware of any record ever being disregarded just because it was thought that a birder failed to accurately measure the distance or time involved in an observation. At the same time, though, it is taken into account if a difficult-to-identify bird is only viewed for a few seconds or at a distance of several hundred yards.

The size of a bird, though, is often a crucial consideration in the bird identification process. Whether it's the bird's bill length or primary extension or its entire body length, a correct ID may depend on getting these measurements right. And the reported size of anything carries little credibility unless there is direct comparison with something in view at the same time. If someone reports that a bird was 20 inches tall or its bill two inches long, you can't help but wonder how these were measured. If it's stated that a gull was smaller than a Herring Gull but that no Herrings were around for comparison, we still don't really know for sure how big the gull in question was.

So, is it hopeless to accurately determine a bird's size if nothing is available for direct comparison? I used to think so until just a couple weeks ago. A group of us were birding on the Dry Tortugas in Florida when we were confronted with a nighthawk resting on a horizontal tree branch. (Please don't ask me how high off the ground the branch was — how should I know?!) As most birders know, an Antillean Nighthawk is something to look for in South Florida, but, unless it is calling in flight or perched next to a known Common Nighthawk, trying to tell one for sure is a difficult challenge at best.

This nighthawk, though, clearly had a relatively short primary extension — that is, we could see its wing tips did not extend beyond the tail tip. A Common Nighthawk's wing tips, like on the one we saw the previous day, extend beyond the tail tip. According to Sibley's field guide and other sources, this difference is a big diagnostic deal! It was tempting to call it an Antillean on that alone, but I was looking for more.

Indeed, the field guides report that the overall length of an Antillean Nighthawk is 8 to 8.5 inches, at least a full inch less than a Common Nighthawk. (And this certainly seemed smaller than yesterday's Common Nighthawk.) So, as I was trying to figure out how to find a ruler, climb the tree, and measure the bird without waking it up, someone with more common sense came up with a novel solution. I, at least, had never heard of this or tried it before, and it occurred to me this could be a helpful technique and solution to some ID problems.

We set up our scopes so that the tip of the nighthawk's bill was at one edge of the scope's field of view and its wing/tail tips were at the opposite edge. To accomplish this with a scope's zoom eyepiece, we just zoomed in to get the desired field of view; with my fixed power scope, I just moved the entire scope and tripod up to the proper distance. Someone then opened his trusty *Sibley* guide to the inside front cover, which has a ruler printed along its edge, and stood under the nighthawk branch. Then, without changing any settings on the scopes, we reaimed the scopes at the ruler in *Sibley*, which was the same distance from us as the nighthawk. We then simply read the number of inches visible across the field of view, and accordingly we had our nighthawk's length.

Each time we did this, no matter which scope we used and which person peered through the scope, we consistently came up with eight inches. In other words, we had successfully measured an Antillean Nighthawk. (Now, please don't ask me

why it wasn't a Lesser Nighthawk!)

Of course, this technique will only work if the bird in question sits still long enough, if it is close enough to fill your scope's field of view, and if it is oriented fully perpendicular to your position. You also might have to make allowances for a bird's posture or position — a species' stated length in the field guides is when the bird lies flat, from bill tip to tail tip. Because of the margin for error involved in trying to place birds and rulers at the exact edges of a scope's field of view, this might not be reliable with smaller species — your bird probably needs to be large enough so there is at least an inch or more difference between it and its ID contender.

What could this work on in Minnesota? Keep it in mind the next time you run into those birds whose measurements might assist you with making a correct ID: a potential second-state-record Neotropic Cormorant, Ross's Goose, Trumpeter vs. Tundra swan, accipiters, Gyrfalcon vs. smaller falcons, King vs. Virginia rail, yellowlegs, Whimbrel vs. Long-billed Curlew (remember the bird in 2002 in Anoka County?), various gulls, Boreal vs. Northern Saw-whet owl, shrikes, and American Crow vs. Common Raven.

And, while an Antillean Nighthawk may never turn up here, given the records for it in Ontario, a Lesser Nighthawk might. (Funny you asked about it earlier!) I can imagine a suspicious nighthawk showing up here some year, perhaps well out of season, whose identification might be confirmed in part by using this measuring technique.

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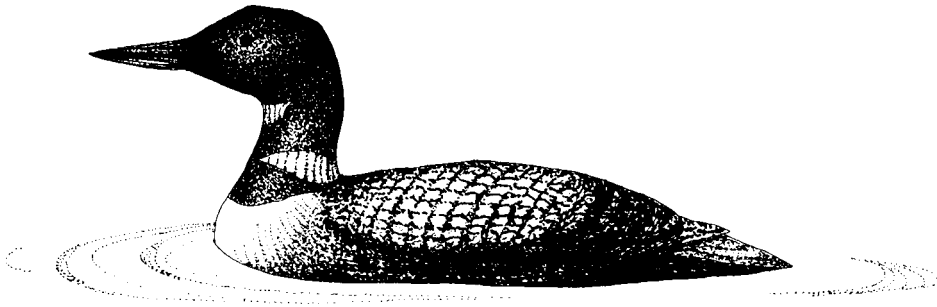


NOTES OF INTEREST

BAIRD'S SPARROWS, POLK COUNTY — I had the great fortune of spending the summer of 2002 on the prairies of northwestern Minnesota for three months, taking part in a research project on tallgrass prairie species of birds with the USGS (United States Geological Survey).

After a few weeks of intensive work with sparrow species and their habitat, I was itching to find different species in what looked like ideal habitat for maybe a Henslow's or Baird's Sparrow. In 2001, after Warren Nelson found a Henslow's a mile or so from my house in Crow Wing County, I asked myself the question; why could there not be

these species just a relatively short distance from there (especially in a region of Minnesota that goes comparatively unobserved)?

On the morning of 18 June 2002, there he was, a lone male Baird's Sparrow singing to the whole of Minnesota, probably in vain. The location was the Glacial Ridge Project (The Nature Conservancy) in a small field frequented by Brewer's Blackbird and Western Kingbird (to name a couple). As soon as I heard the distinctive, jingling, zippy call ending with a trill, I stepped out of my vehicle to investigate further. I knew it was none of the many other species I was with daily and had the suspicion it was a Baird's. I had a tape in the vehicle with the Baird's on it, so I quickly threw it in and indeed, it was an identical match.

After scanning the field for about 30 seconds, I found the bird perched on a large plant, which I was later told was pigweed. The bird sang continuously that day and for many days in the coming weeks. What can you say about many of these sparrows from a distance, other than they are brown! Closer inspection is well worth it, the delicate tones of brown, rufous and sandy colors mixed with intricate stripes of the mustache, eyeline, and throat stripe makes this on second appearance a beautiful master of disguise.

I called Betsy Beneke at Tamarac National Wildlife Refuge (then Northwest Minnesota Birding Report compiler) and told her what I had found. I was hoping someone would be willing to come out and verify my finding. Little did I know how many would actually come out to verify it over the coming weeks. It never did appear to have a mate, but it was very much a pleasing location to this determined little fellow, better luck in 2003 hopefully.

On the morning of 14 July 2002, I found a second bird again within Glacial Ridge (about three miles approximate from the first bird). The first bird was present that day, so I knew this was a different individual. I found it in exactly the same manner. He was singing incessantly. This chap was observed again on two other occasions at this location. Who knows what lurks in Polk and neighboring counties? There are relatively few birders and researchers and a lot of ground to cover. At least we know a good place to start looking. I would not be surprised if more were found. **John Richardson, 7297 State Hwy 25, Brainerd, MN 56401.**

ANOTHER ARCTIC TERN AT DULUTH, ST. LOUIS COUNTY — On 27 May 2002 at about 3:15 P.M., while watching shorebirds and waterbirds at the 40th Avenue West/Erie Pier area in Duluth, I identified an adult Arctic Tern (*Sterna paradisaea*) amongst a small flock of Common Terns (*S. hirundo*). The terns were calling loudly as they approached the main pool from the southeast, which drew my attention to them. I followed them in flight as they began foraging along the edge of the pool and approached the corner of the dike where I was standing.

One of the terns flew with a bounding/bouncy flight, causing its body to rise up and down with each wing stroke. This flight style was distinctive and obviously different from the four Common Terns. The bird in question also showed relatively long and narrow wings. From prior experience, I associated these characteristics with Arctic Tern, so focused my attention on this individual as it approached. It was flying about eye level as it first passed by. It flew in a small circle right in front of me before it continued on towards the Blatnik Bridge with the other terns. At its closest approach, the bird was only 50 feet away!

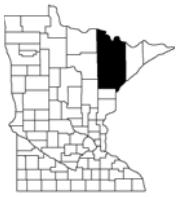
The Arctic Tern's bill was entirely reddish and lacked a dark tip. I did not note eye color and the legs were not visible. It had a complete black cap, which was separated from the gray on its face by an obvious white border. Compared to the Common Terns, its neck seemed to be shorter and thicker, but I was unable to compare directly bill

size or head shape. Its back was the same gray color as its wings. Its rump, tail, and long tail streamers were white. I specifically noted a lack of contrast between its white rump and white tail, but could not detect gray on the outer edge of its tail and did not compare the length of its tail streamers to those of the Common Terns.

The Arctic Tern's upperwing surface was carefully scrutinized as it circled directly in front of me at close range. Its upperwing was uniformly gray and completely lacked markings. All of the Common Terns showed an obvious dark wedge on the outer wing, where recently molted primaries were adjacent to the oldest primaries. The Common Terns also showed slightly darker outermost primaries. The Arctic Tern's underwing pattern was visible as it approached at or near eye level. It showed a thinner and more crisply defined black line on the trailing edge of its outer wing, compared to a thicker and blurry trailing edge on the Common Terns. None of these birds soared high enough to see the pattern of translucency on their flight feathers.

Compared to the Common Terns, its body appeared darker gray and contrasted strongly with its whitish underwings. This contrast was well seen and obvious as the bird circled right in front of me. As previously mentioned, the gray extended up onto its cheeks and contrasted with the white border below its black cap. I stayed at 40th Avenue West for an additional hour and saw several more Common Terns, but never relocated the Arctic Tern. I also scoped Interstate Island and Hearding Island without success. **Peder H. Svingen, 2602 E. 4th St., Duluth, MN 55812–1533.**

LATE SNOWY OWL AT DULUTH — Shortly before 11:20 P.M. on 17 May 2002, while



driving south on I-35 in Duluth in order to begin the annual Hawk Ridge Birdathon at the stroke of midnight, Anthony spotted an apparent Snowy Owl perched on a highway sign along the opposite (northbound) lanes of the freeway. In disbelief, we exited the freeway, turned around, and pulled onto the shoulder within 15 yards of what was indeed a Snowy Owl! There was enough illumination from the freeway lights, the nearby ore docks, and the high beams on our vehicle to determine that it was this species instead of an "Arctic" Great Horned Owl, a Barn Owl, or some other species with albinistic plumage. The bird was almost entirely whitish, but showed sparse markings on its coverts and tertials. As one of the birds marked by researcher Dave Evans during his long-term study on Snowy Owls in the Twin Ports, this individual also showed a patch of black on the left side of its head and black on its primaries. Since it was still well before midnight, we had to decide whether to continue on to Mud Lake and return to look for the Snowy Owl at a later time, or just stay there until the official start time. Knowing how unusual this species would be for the Birdathon, we decided to park just outside of the locked entrance to the ore docks area and keep it under surveillance.

On two heart-stopping occasions it took flight, but after circling around the area it always returned to the same perch, so we were able to watch it continuously until 11:56 P.M. At that time, it suddenly flew down to the ground where we could not see it and disappeared! We waited and waited but it did not reappear and time constraints forced us to continue on to Mud Lake. Fortunately, when we drove by the area again at 1:15 A.M. on 18 May, the owl was back on its perch by the freeway and could be included for the first time ever on the official list of species seen during the Birdathon. No fewer than 134 Snowy Owls were reported in Minnesota from October 2001 through May 2002, including 18 in the Twin Ports (about half of these on the Duluth side of the harbor according to Dave Evans). Snowy Owls have lingered into May in Minnesota following an invasion winter and there are even a few June records (***The Loon*** 64:172). We reported our find to Dave Evans who suggested that this was Snowy

Owl #86 in his study, an adult male that arrived in early winter and stayed in Superior until January, when it moved to the Duluth side of the harbor. Dave had spotted this bird near the ore docks just a few days before the Birdathon. **Peder H. Svingen, 2602 East 4th Street, Duluth, MN 55812, and Anthony X. Hertzel, 8461 Pleasant View Drive, Mounds View, MN 55112.**

HENSLOW'S SPARROW AT BUFFALO RIVER STATE PARK IN CLAY COUNTY — On

2 June 2001 my Dad, Robert Schroeder, and I were birding Buffalo River State Park. At 6:45 A.M. we were in the area along the old tar road leading through two sections of prairie area in the park. Our attention was drawn to a sparrow singing its short song from the top of a sturdy grassland stalk. Due to the heavily overcast lighting, and the distance between us and the bird we could not immediately identify it, although I commented to Dad that the song reminded me of the description of Henslow's Sparrow on the Peterson *Birding by Ear* tape, "… a high pitched hiccup."

Moving closer we could make out some very distinct field marks. The bird was small, initially reminding of a LeConte's Sparrow (*Ammodramus leconteii*). The bird had a stocky shape and a noticeably shorter tail. The most prominent feature with respect to shape was the flattened look to the top of the head, and the long, thick, bill, which was pale in color.

Also conspicuous was the rusty color on the folded wings of the perched bird; especially on the tertials and greater coverts. This rusty coloration strikingly contrasted with the alternating dark and light streaking on the back of this bird. The tail was medium to dark brown in color, as was the back of the bird. The dark brown feathering of these areas had a slightly scaled appearance to it from the light colored fringe on some individual feathers. On the underside of the bird, the breast had a slight buff color to it, which extended along the upper flanks. Fine, dark streaking also was on the breast and upper flanks, while the belly of the bird was white.

The most distinguishing characteristics, however, were the flat head, very large, thick, pale bill, and overall olive coloration on the head and face. The olive color was vibrant and conspicuous on the cheeks and face of the bird. Dark facial markings were present as well. A fine dark malar line extending along the length of the white throat, and a dark, triangular shaped spot was visible behind the eye, between the auricular and nape. On top of the head, the bird had a light olive-colored median crown line that was offset by thicker, dark lateral crown stripes. Below the lateral crown stripes, the olive color of the head was distinct. We identified it as a Henslow's Sparrow (*A. henslowii*).

The song of this bird was quite clear. A recording was made and sent to Peder Svingen for review. I described the song as a quick but quiet "tse-leck"; with the "tse" note being short and clear, and the "leck" note being slightly deeper in pitch, and having a slightly "congested" or "throaty" sound to it. When the bird would sing its song, it would throw its head back in a rapid motion immediately before the song, and would quickly move it back into the same position as before the song.

Separated by sight from both Nelson's Sharp-tailed Sparrow (*A. nelsonii*) and LeConte's Sparrow by olive — not buff-orange — facial features, and (most distinctly) by song. The described song of Henslow's is quite unlike the insect-like buzz of LeConte's and the raspy song of Nelson's Sharp-tailed which is described as hot metal being dropped into cold water.

While there, Dad found a second Henslow's Sparrow. This bird did not vocalize, and was in the immediate area of the first bird. Perhaps this one was a female, and was

paired with the singing male.

We were able to observe both these tolerant birds at a distance of perhaps 10–20 meters with 10x42 binoculars, and were able to record several minutes of the singing bird's song. **Roger Schroeder, 700 B West Marshall, Marshall, MN 56258.**

WESTERN SANDPIPER IN DAKOTA COUNTY — After several weeks of a relatively mild autumn weather pattern in 2001, things changed on 24 and 25 October. Strong winds from the northwest blew consistently at up to 40 mph, the cloud cover was thick and low, and there were alternating storms of rain and snow. By Friday the 26th, the winds had calmed, and the remaining storms were reduced to occasional drizzle. I thought it might be a very good time to check Lake Byllesby, near Randolph, for unusual loons, scoters, or other vagrants.

A quick stop in the morning wasn't productive, so I returned early in the afternoon when I could spend more time. From a vantage point that allows a good view of the west end of the lake, I spotted a godwit and further away some Dunlin accompanied by a smaller shorebird. Wanting a better look at the godwit, I moved to another closer viewing spot. After studying that bird for a while, and watching it fly, I was sure it was a Hudsonian Godwit (significant in its own right), and turned my attention to the Dunlin group.

From my original viewing location, the smaller shorebird didn't appear significantly different. But from this closer point, I could immediately tell it was much lighter overall in color, and its bill was nearly identical to the Dunlin's in shape although proportionately smaller. Considering possibilities, I wondered if it might be a different sex bird? I had not been previously aware of any obvious sexual dimorphism in Dunlin, and thought this bird deserved closer attention. I needed a better look and quickly moved to yet another closer vantage point.

This new location offered excellent views of the bird from no more than about 150 yards. I began to closely study the bird, and spent the next 40 minutes carefully noting details and behavior. In overall structure the bird was very Dunlin-like and accompanied five Dunlin for direct comparison, as previously mentioned. This bird was significantly smaller, approximately half the size of the Dunlin. Its bill was black and long, widest at the base and tapering along its entire length to a pointed and down-turned tip. Other identifying fieldmarks were noted, and I was beginning to convince myself of the bird's identification. When I saw a small patch of contrasting rufous coloring on the upper scapulars (not a trick of the lighting at a particular moment), I was sure the bird was a Western Sandpiper. I have seen this species many times on the plains of eastern Colorado, and knew that this fieldmark in fall is unique for a juvenal-plumaged bird.

I left the site immediately and drove home to make phone calls. Contacting Tom Tustison at work, we made arrangements to meet as soon as he could leave the office and get his gear at home. We were back at the site by 5:00 P.M., prepared to write notes, draw sketches, and with a selection of good reference books if we needed them (which remained in the car). Together we studied the bird for another hour. I drew a portrait of the bird while observing it through the scope. Tom recited details, and I wrote down the notes. The lighting wasn't as good as earlier in the afternoon, and it was getting dark. We felt we had a sufficient amount of detail, and needed to consult our references and study our notes to confirm the identification. We left the area.

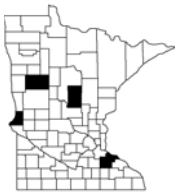
Having contacted Anthony Hertzel with the information, he was able to briefly observe the bird the next morning. Unfortunately, a female Merlin decided about this same time that a shorebird would either make a great breakfast, or would at least be great fun to chase, and the sandpiper was last seen flying off to the southeast. The

Dunlin circled back and remained, but the Western kept on going. It was the last time the bird was seen. Anthony also agreed that the bird was a Western Sandpiper, based on the details he was able to observe.

Very helpful to me in confirming the identification of this bird was the article, "Field Identification of Smaller Sandpipers Within the *Genus Calidris*," by Richard R. Veit and Lars Jonsson which originally appeared in *American Birds*, Vol. 38 No. 5, 1984; and reprinted in the same journal, Vol. 41 No. 2, 1987. It remains probably the most informative and in-depth article yet to appear on the subject, with beautiful and large illustrations. I would unconditionally recommend it to anyone interested in small shorebird identification.

This observation represents only the fourth documented and accepted record of Western Sandpiper for Minnesota, and the first since 1991. **Drew Smith, 3606 Widgeon Way, Eagan MN 55123.**

SPRING 2002 INFLUX OF PROBABLE BLUE-WINGED X CINNAMON TEAL — On 20 April 2002, we drove to a wetland near Frontenac, Goodhue County, where a male Cinnamon Teal (*Anas cyanoptera*) had been reported the previous day. After several minutes of searching, Anthony spotted a teal that superficially resembled this species, but clearly showed evidence of hybridization with Blue-winged Teal (*A. discors*). We studied it through a spotting scope from 4:45 to 5:15 P.M., looking towards the northwest under overcast skies from less than 50 yards away. Male and female Blue-winged Teal were nearby for direct comparison. The bird in question appeared to be slightly smaller than a male Blue-winged Teal. Its bill was large, spatulate, and monochromatic gray in color, but seemed to be about the same size and shape as a male Blue-winged Teal's bill. Its irides were red.



Its head pattern was definitely not that of a male Cinnamon Teal. Though mostly cinnamon in color, its head appeared abnormally dark from the hindnape to the forecrown. It showed a dark bluish-gray stripe through the eye on both sides of the head; the shape of this stripe was vaguely reminiscent of male Green-winged Teal (*A. crecca*). A pale, comma-shaped spot was seen anterior to the eye on both sides of the head. Other than this spot, the palest part of the face was near the base of the bill.

Its back and scapular pattern appeared identical to that of the male Blue-winged Teal, except that its tertials were blackish, edged with buff. The under-tail coverts were entirely blackish. The bird's breast was cinnamon in color, but due to its frequent dabbling and tendency to face away from us, it was difficult to determine whether or not spotting was present on its breast. However, the flanks clearly showed additional hybrid features. Its flanks were cinnamon in color with finely scalloped markings, except posteriorly (where male Blue-winged Teal shows a white patch). In this part of its flanks there were no markings and the color graduated to washed-out buff. The Blue-winged Teal's flanks appeared speckled in comparison to the finely scalloped pattern on this individual.

At least three more apparent hybrid Blue-winged X Cinnamon Teal were found in Minnesota during Spring 2002. One was photographed 22 April by Bill Marchel eight miles south of Brainerd, Crow Wing County, another was documented 2 May by Karl Bardon at Mud Lake, Traverse County, and a third was photographed 17 May by Frank Nicoletti at Hamden Slough N.W.R., Becker County. Meanwhile, apparently pure male Cinnamon Teal were found in Cottonwood, Hennepin, Polk, and Renville counties. The number of hybrids reported in Spring 2002 suggests that they may have been overlooked, underreported, or misidentified in the past. Probable hybrid Blue-winged X Cinnamon Teal have been well-documented only four times previously in Minnesota

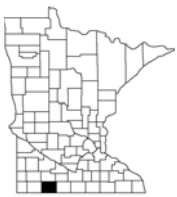
(***The Loon*** 39:59–60, 63:197–198, 67:179, 73:66–67). This underscores the need to consider the possibility of hybridization when observing teal. **Peder H. Svingen, 2602 East 4th Street, Duluth, MN 55812, and Anthony X. Hertzel, 8461 Pleasant View Drive, Mounds View, MN 55112.**

BARRED OWL TAKES COOPER'S HAWK? — On the early morning of 1 June 2002, I was walking the paths of Seven Mile Creek County Park in Nicollet County following the song of a distant Kentucky Warbler. Deep in the woods, a commotion suddenly arose about a hundred yards ahead of me. Blue Jays, Northern Cardinals, Black-capped Chickadees, and numerous other woodland songbirds were all screaming and calling, their alarm notes rising above other more severe noises. Assuming the birds had discovered some sort of raptor, I abandoned my search for the warbler and made for the clamor. As I reached the crest of a small rise and peered through an opening in the now rather dense spring vegetation, I saw what appeared to be a very large owl perched on a thick, dead tree limb surrounded by numerous smaller, pestering birds. Looking through my binoculars, however, I realized this was no ordinary roosting owl. With its dark brown eyes and large, round head, this was clearly a Barred Owl. It was, however, sitting directly atop a freshly killed adult Cooper's Hawk. The hawk, which was nearly the size of the owl, appeared to have been dead only a very short time and was lying loosely across the limb on its back, its bright yellow legs in the air, head and tail dangling down. I could see the yellow cere of the hawk's bill, and the dark cap and rusty barring on the undersides left little doubt as to its identity. As the owl moved and negotiated with its antagonists, the head and legs of the hawk beneath it would sway from side to side, indicating again that the bird had been dead only a short while.

The owl did not notice me and calmly surveyed the mob of smaller birds heckling it. It made no motion toward the accipiter in its talons but seemed content simply to hold its ground. I quietly withdrew then hurried back to my car to retrieve my camera in hopes of photographing this most unusual scene. Unfortunately, when I returned both the owl and its apparent meal were gone.

This was one of the most astonishing sights I have ever seen while birding. Barred Owls routinely prey upon small birds, but they generally limit themselves to nothing larger than a Northern Flicker. There are rare records of Barred Owls taking Long-eared Owls, but I could find nothing in the literature of any Barred Owl ever taking a bird as large as a Cooper's Hawk. **Anthony X. Hertzel, 8461 Pleasant View Drive, Mounds View, MN 55112.**

HERON LAKE SHOREBIRDS — During early August 2002, Heron Lake in Jackson County hosted a record concentration of shorebirds. News of the draw-down and "thousands of feathered critters" reached the internet in late July, but I did not visit the lake until 1 August 2002. On this date, the entire northern third of North Heron Lake was an immense mud-flat, and a remarkable 22,200 shorebirds were counted (by fives). An additional 1074 shorebirds were counted on South Heron Lake, and a total of 21 species were seen on both lakes. I was able to count and identify all individuals on the west shores of South Heron Lake, but at North Heron Lake where overwhelming numbers of birds were present, I was forced to estimate the proportion of each of the most common species present among the total number of birds counted. The numbers given for each species in the enclosed table are from both North and South Heron Lakes.



While spending six hours covering the northern third of North Heron Lake on 1 Au-

gust, I was continually impressed with the fact that over half of all shorebirds present were Pectoral Sandpipers, and I reached a final estimate of 60% (over 13,000). Based on population estimates published by the Canadian Wildlife Service (Occasional Paper #4), this represents 3% of the global population (400,000) and over 15% of North America's Interior flyway population (83,800). The second most common species at North Heron Lake was Semipalmated Sandpiper, estimated at a minimum of 2,000, although this number may have actually been considerably higher. Since much of the lake had become dry, most of the shorebird use was out near the center of the lake far from any vegetation, and as a result, comparatively few Least Sandpipers were present. Also, surprisingly few yellowlegs, Stilt Sandpipers, and dowitchers were present.

	1 Aug	**5 Aug**	**15 Aug**
Black-bellied Plover	1	9	9
Semipalmated Plover	219	120	14
Piping Plover	1	0	0
Killdeer	500	239	20
American Avocet	1	3	1
Greater Yellowlegs	8	22	19
Lesser Yellowlegs	648	1452	1322
Solitary Sandpiper	2	1	2
Spotted Sandpiper	2	4	1
Upland Sandpiper	0	1	0
Hudsonian Godwit	1	2	0
Marbled Godwit	4	2	3
Ruddy Turnstone	4	2	0
Sanderling	7	8	0
Semipalmated Sandpiper	2000+	1217	517
Least Sandpiper	140	242	144
Baird's Sandpiper	3	19	2
Pectoral Sandpiper	13000	3231	1304
Stilt Sandpiper	39	897	455
Buff-breasted Sandpiper	28	1	0
Short-billed Dowitcher	0	4	2
Long-billed Dowitcher	0	17	3
dowitcher, sp.	25	0	22
Wilson's Phalarope	2	9	184
Red-necked Phalarope	0	0	1
shorebird, sp.	6639	1599	0
identified shorebirds	16635	7501	4026
total shorebirds	**23274**	**9100**	**4026**

Although I returned to Heron Lake on 5 August 2002, hoping to refine my estimates of the number of each species, huge rainstorms during the intervening weekend inundated the mudflats, and considerably fewer birds were present. "Only" 9100 shorebirds were counted, and exact counts were made on 7198 individuals. The habitat was now considerably better for wading species such as yellowlegs and Stilt Sandpipers, while the Pectorals and peeps were forced onto the edge of the lake near the vegetation. Continued rain and reduction in the amount of exposed mud resulted in only 4,026 shorebirds counted on 15 August 2002. By 27 August 2002, the lake was entirely full and no shorebirds were present. **Karl J. Bardon, 13073 Hastings St. NE, Blaine, MN 55449.**

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Purpose of the M.O.U.

The Minnesota Ornithologists' Union is an organization of both professionals and amateurs interested in birds. We foster the study of birds. We aim to create and increase public interest in birds, and to promote the preservation of birdlife and its natural habitat.

To carry out these aims, we publish a journal, ***The Loon***, and a newsletter, *Minnesota Birding;* we conduct field trips; we encourage and sponsor the preservation of natural areas; we hold seminars where research reports, unusual observations and conservation discussions are presented. We are supported by dues from members, affiliated clubs and special gifts. Any or all phases of the MOU program could be expanded significantly with gifts, memorials or bequests willed to the organization.

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Suggestions to Authors

The editors of ***The Loon*** welcome submissions of articles, Notes of Interest, color slides, and color or black & white photographs. Submissions should be typed, double-spaced and single-sided. Notes of Interest should be less than two pages. Photographs should be 5"x7". Whenever possible, please include a copy of your submission in any standard format on any size computer disk.

Club information and other announcements of general interest should be sent to the Newsletter editors. See inside front cover. Bird sighting reports for each season should be sent promptly at the end of February, May, July and November to Peder Svingen. See key to the "Seasonal Report."

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Obituary
Walter John Breckenridge
1903–2003

Anthony X. Hertzel

Dr. Walter John Breckenridge, the world renowned naturalist, photographer, ornithologist, conservationist, and artist died 22 May 2003 at age 100. The youngest of three children, "Breck", as his friends called him, was born 22 March 1903 in the small town of Brooklyn, Iowa. Early in life he showed a keen interest in the natural world, especially birds. While still in grade school, he memorized the pictures in his bird guide so when he saw a bird new to him, he would already know the species. He had no binoculars at that time and in fact, felt that it was cheating to use them, insisting that one should carefully stalk a bird sufficiently close to learn its identity. He eventually realized that binoculars were essential for proper identifications, and his first were a pair made of heavy cast iron that were World War I surplus.

In his teens, Breck signed up for a correspondence course with the Northwestern School of Taxidermy, and taxidermy became a hobby that lasted throughout his high school years. In college, his undergraduate work was at the University of Iowa. While there, he excelled at gymnastics, taking First Place in the 1925 Big Ten Gymnastics Tournament. The University's yearbook called Breckenridge "unquestionably, the best tumbler in the Big Ten Conference."

At the University of Minnesota, he earned a Master's degree in ornithology in 1937 and a Ph.D in herpetology in 1941. His studies during this time included the natural history of the Wood Duck, the natural history of the Northern Harrier, Canadian toad distribution and hibernation, spiny soft-shelled turtle growth rate and age, prairie skink life history, and the herpetology of Minnesota. This last project was the subject of his doctoral thesis and resulted in the book *Reptiles and Amphibians of Minnesota*, which was published by the University of Minnesota Press in 1944 and was for many years considered the standard reference.

In 1926, he began a career at the University of Minnesota's Natural History Museum as the Preparator under the direction of Dr. Thomas Roberts. Among his many early assignments was collecting birds from areas in Minnesota which Dr. Roberts had not yet investigated. It soon became clear that Breck was exceptionally qualified in this regard and he continued this work for many years. He made dozens of trips around the state and elsewhere to collect specimens for the Museum. In 1936 he was appointed the Museum's Curator, and when Roberts retired in 1946, Breck was promoted to Director, a position he held until 1970.

Throughout his life, Breck was involved in a wide variety of activities. Over a period of 68 years, he published more than 300 articles in more than 40 books, journals, newspapers, and magazines. He lectured in 48 states, all the provinces of Canada, as well as Japan, New Zealand, Trinidad, the Galapagos Islands, and many other places around the world. He was a member of the Izaak Walton League, the National Audubon Society, the Wood Duck Society, the Minnesota Ornithologists' Union, the Nature Conservancy, and the World Population Balance.

Breck was perhaps the last of the

Walter J. Breckenridge, about 1930.

state's original pioneering ornithologists and also one of our first conservationists. Long before it was fashionable, he was concerned about the rapidly-changing environment and he recognized that many habitats and wild areas were vanishing. He once wrote, "Even on the wide open prairies I often feel that I am intruding among these delicately balanced forms of wildlife so carefully shaped by Nature's evolving forces through eons of time. I feel I should move slowly and quietly so as not to disturb their complex lives. Strangely enough I experience a deeply rooted love and kinship for all of this life and strongly resent the fact that man will sooner or later move in to displace it. And still I am a man myself and my own presence is the first step in the displacement that I abhor. At these strange times I feel that I am an actual part of this marvelous natural complex — not a man at all. And in this role I love to walk mile after mile over the prairie or sit hour after hour watching and learning more about the normal daily experiences of these wild creatures." — quoted from *The Bird Watchers America* by Olin S. Pettingill, 1974

Breck received dozens of awards and honors during his lifetime, including:

1925 — elected to Phi Beta Kappa, Honorary Scholastic Fraternity, University of Iowa.
1926 — appointed Preparator, University of Minnesota Museum of Natural History.
1930 — elected to the Gamma Alpha Scientific Society.
1936 — appointed Curator of the University of Minnesota Museum of Natural History.
1946 — appointed Director of the University of Minnesota Museum of Natural History.
1947 — elected president of the Minnesota Academy of Science.
1950 — elected Fellow of the American Ornithologists' Union.
1952 — elected president of the Wilson Ornithological Society.
1957 — given the K.M.G.M. TV Outdoor Award.
1964 — received the Robert G. Green Conservation Award by the Minneapolis Junior Chamber of Commerce.
1964 — given the MOU's Thomas Sadler Roberts Memorial Award for outstanding contribution to Minnesota ornithology.
1965 — received the Award of Recognition of Meritorious Service by the Minnesota 4H Clubs.
1967 — given the Minnesota Section Wildlife Society's Minnesota Award for Outstanding Contributions to the Profession of Wildlife Management.
1975 — received the Cornell University Arthur A. Allan Award.
1980 — the mayor of the City of Birmingham, Alabama declares 11 December 1980 "Walter J. Breckenridge Day."
1984 — received the National Audubon Society Citation for 23 years of lectures for Audubon Wildlife Film Programs.
1985 — given the Special Award as Communicator Conservationist by the Northwest Sportshow.
1987 — given Fur, Fins and Feathers Club 1987 Sportsman of the Year.
1988 — given the American Museum of Wildlife Art Award for Contribution to the Birds of Minnesota.
1988 — the Izaak Walton League of Minnesota gives him the Ed Franey Award for Contributions to Conservation through written, spoken, and visual media.
1995 — awarded the Audubon Chapter of Minnesota Conservationist of the Year.
1995 — given the Minnesota Herpetological Society Award for contributions to Minnesota herpetology.
1995 — the University of Minnesota establishes the "Breckenridge Chair of Ornithology".
1996 — the Izaak Walton League's North Minneapolis Chapter is renamed the Walter J. Breckenridge Chapter.

8461 Pleasant View Drive, Mounds View, MN 55112.

Walter Breckenridge filming at Wales, Alaska, 1964.

Memories of Walter J. Breckenridge

Charles A. Evans

In the 1930s, I worked as a student assistant in the Museum of Natural History at the University of Minnesota. When I started, Breck, as everyone called him, was the staff member who created the exhibits that I admired so much. He was a young man, recruited a few years earlier after graduating from the University of Iowa.

I was especially fond of two large exhibits of birds in their natural environment. One showed marsh birds as they occurred at Heron Lake in southwestern Minnesota. The other showed a prairie scene with Whooping Cranes and the other birds common on Minnesota prairies before the white man's intrusions.

I marveled that any one person could possess the requisite knowledge of birds, plants, and nature in general as well as the technical skill necessary to create these superb exhibits.

Through occasional casual contacts with Breck, I found him to be a friendly, outgoing, intelligent person of great energy and accomplishment. To me as a young college student, he and Dr. Roberts, the Director of the Museum, were the finest examples of the sort of person one could wish to be. I considered it a great privilege to work in the institution they were creating. **7739 – 29th Avenue NE, Seattle, WA 98115.**

Editor's note: Dr. Evans, 91, is a founding member of the MOU.

Walter J. Breckenridge

Remembrances

Robert B. Janssen

It was the end of April — April 28th 1962 to be exact, when I first visited Walter J. Breckenridge (better known as "Breck" to his friends) at his home located along the Mississippi River north of Minneapolis. He had discovered a Worm-eating Warbler in his yard. This was one of the first records of this species for Minnesota and he wanted to share the sighting with the birding community before the bird became a specimen in the museum collection, (securing specimens of unusual species was common practice at the time.) Over the years there were many other interesting birds that we were able to see in Breck's yard, including a Carolina Wren that Breck attempted to keep warm one winter with the use of a heating pad.

I first met Breck through his artwork. Shortly after I became editor of *The Flicker* in 1959, Breck had discovered Minnesota's first record of the Western Sandpiper. I asked him to do a painting of the sandpiper for the cover of the journal, which he did in just a few weeks. After that, his artwork adorned many other covers of *The Flicker* and ***The Loon***.

It was during this period that I became familiar with Breck's talent as a wildlife and especially bird artist. I had, of course, admired his paintings in Roberts' *Birds of Minnesota*. In the 1960s I purchased his Hudsonian Godwit painting done at Leech Lake. In the early 1970s, I asked him to do the frontispiece for Jan Green's and my forthcoming book on Minnesota birds. He did a magnificent painting of a male and female Spruce Grouse in a special light setting. I liked the painting so much I purchased the original and it now hangs, along with the godwit, in a very prominent place in our home.

It was through Breck's encouragement and requisition of funds at the University of Minnesota Press that made our book a reality. Others at the Bell Museum said such a book was not needed in light of Roberts' *Birds of Minnesota,* but Breck saw the value of an update and his will prevailed.

As a teenager I marveled over Breck's writings and discoveries of prairie birds in northwestern Minnesota. This was an incentive to an eager young birder to explore Minnesota.

Breck told great stories about his younger days as an explorer of the "wilds" of Minnesota in the 1920s and 1930s. My favorite was his description of a Greater Prairie-Chicken booming ground in Hennepin County in the late 1920s at the present site of the Radisson South Hotel in Edina. He told me, "I pulled my car off the dirt road (now state highway 100) on a pleasant Saturday morning in early April and watched the male prairie-chickens display. Only one or two cars passed by the area as I watched the birds for over an hour."

There was much more to Breck than was obvious to us who knew him as director of the Bell Museum, bird artist, wildlife photographer, film maker, and ornithologist. He was a devoted husband and family man. He was an avid environmentalist which we got a glimpse of through his frequent editorials in the Minneapolis paper on rampant human population growth. Breck and Dorothy's annual Easter letter was something to look forward to. This letter summarized the year's activities of a most amazing family.

Minnesota ornithology was invigorated by Walter J. Breckenridge for many, many years. Many of us will be forever indebted to him and his wonderful influence.

162 Lakeview Road East, Chanhassen, MN 55317.

Obituary

Elizabeth McClure Campbell

Jo Blanich

Elizabeth McClure Campbell, longtime treasurer of the MOU, died on 2 June 2003, in her 88th year. She was an avid bird watcher and naturalist who loved sharing her knowledge of the outdoors with others.

One of my earliest memories of the MOU was in the 1960s when my husband, Steve, and I attended an annual meeting where Elizabeth was registering and welcoming attendees.

By meeting Liz and her husband, Rex, on MOU field trips, at Hawk Ridge, on a Grand Marais winter trip, or on other trips to various places in Minnesota, we became good friends. At their home, there were always birds in cages on their porch and in the basement in various stages of rehabilitation. Their son, Charlie, said that in summers when her three boys were growing up, there were always baby birds being cared for which had been brought in by neighbors and others. She was a birder before birding became today's most popular outdoor activity. Volunteering at both the Lee and Rose Warner Nature Center and the Tamarack Nature Center, (where she did bird banding, monitoring, and trail guiding), was a big part of her life. She participated in Christmas Bird Counts in the White Bear-Mahtomedi areas, breeding bird surveys in western Hennepin County, and was on call for bird information for the St. Paul Audubon Society. She received the Thomas S. Roberts Award in 1982 for her outstanding contribution to Minnesota ornithology. She was a member of the Roberts Club with a Minnesota life list of 369.

We heard of a birding tour being organized to Attu, Alaska, the first birding tour trip to go there. Immediately, she wanted to go. Her enthusiasm was so contageous, she and I both signed up. She was a fun field companion, both enthusiastic and dedicated and always focused on the birds. She traveled to see birds in many other states. She, Rex, Steve, and I attended the first American Birding Association convention in Kenmare, North Dakota. We saw Kirtland's Warbler together in Michigan. She also birded Churchill, Manitoba, Central and South America, Scotland, and Great Britain. Liz even went to Antarctica in 1991. She kept journals of her trips, noting details of her observations of the bird species, flora, weather, and companions.

Elizabeth Campbell.

When I think of all the birds she cared for, it may not have made a difference to the entire species, but it made a big difference to that individual bird.

23005 Agate Shore Road, Deerwood, MN 56444.

Songbirds in Upland Openings and Recent Clearcuts in Northeastern Minnesota

Robin S. Vora[1], Catherine Leece[2], and Audrey Evers[2]

*We compared songbird species composition in recent upland clearcuts (<5 years old) to that in small and large managed upland herbaceous openings in the Superior National Forest to determine which contained more species or individual birds. Small, managed herbaceous openings (<3 ha) in mature forests had fewer bird species than recent clearcuts (5–21 ha). Song Sparrow (*Melospiza melodia*) and American Robin (*Turdus migratorius*) were common in both with Song Sparrow abundance significantly higher in clearcuts (p<0.05). Cedar Waxwings (*Bombycilla cedrorum*) were observed in three of 20 small openings but not in the 25 clearcuts sampled. Clearcuts were more varied in habitat structure and more species were observed along the forest edges of clearcuts than the edge of small openings. Songbird species in forests surrounding openings were similar to those in forests surrounding clearcuts. Increasing songbird diversity may not be a justifiable reason for constructing small openings in northeastern Minnesota as long as timber harvests maintain a dynamic pattern of temporary openings. Large herbaceous openings (3–160 ha) contained a few grassland bird species typically not found in clearcuts.*

Even-aged forest management, typically clearcutting for timber production, is a common practice in aspen-birch, spruce-fir, and jack pine forests in the northern Great Lakes. It provides habitat for breeding birds found in regeneration and sapling stands, and later through various stages of stand development (e.g., Benyus *et al.* 1992, Probst *et al.* 1992, Green 1995, King and DeGraaf 2000, Thompson and DeGraaf 2001). Population density declines two years after clearcutting for a few species such as Eastern Bluebird (*Sialia sialis*), after 7–10 years for several species (e.g., Mourning Warbler, *Oporornis philadelphia*), and not until 20 years or later for other early successional birds (e.g., Veery, *Catharus fuscescens*; Titterington *et al.* 1979, DeGraaf 1987). In northeastern Minnesota, defining habitat associations for avian species based on forest cover type and successional stage of even-age forests may be too simplistic because it does not account for many factors important to the distribution of individual species (e.g., conifer-hardwood species mix, stand structure, patch size, adjacent habitat; Niemi and Pfannmuller 1979). Point-count data show considerable variation in species habitat selection when habitat is defined in this manner in northern Wisconsin and northern Minnesota (Hawrot *et al.* 1994, Green 1995).

Permanent upland forest openings also provide habitat for some avian species (Taylor and Taylor 1979, DeGraaf *et al.* 1992). The major purpose of managing small upland herbaceous openings in the northern forest generally has been for enhancement of white-tailed deer habitat, but they are also used by a variety of other species, including songbirds, and those general habitat relationships are often cited by managers in reports (McCaffery *et al.* 1981). Large upland openings, including pine barrens, are maintained for upland grassland species (Vora 1993, Borgerding *et al.* 1995, Hamady and Evans 1995).

Table 1. Mean number of individuals/stand within 50m of census point in small grass-forb openings (<3 ha), large openings (mostly grass-forb, 4–160 ha), clearcuts (5–21 ha), and upland forest (>16 ha) using 10-minute point counts. Blanks indicate zero.

	Upland small openings 1993 n = 20	Upland large openings 1993 n = 5	Upland clearcuts 1992 n = 25	Upland forest mean 1992-93*		
				5–15yr n=38	15–40yr n=64	>40yr n=46
American Kestrel			0.04			
Wilson's Snipe		0.20	0.04	<0.01		
Ruby-throated Hummingbird				<0.01	<0.01	<0.01
Northern Flicker			0.08	0.02	0.01	<0.01
Alder Flycatcher			0.16	0.03	0.01	0.01
Red-eyed Vireo			0.04	0.09	0.11	0.14
Blue Jay	0.05		0.12	0.03	0.03	0.02
Tree Swallow	0.05	1.40	0.04	<0.01	<0.01	
Black-capped Chickadee		0.20		0.01	0.02	0.01
Eastern Bluebird		0.40		<0.01		
American Robin	0.25	0.20	0.08	0.06	0.01	0.02
Veery			0.04	0.09	0.03	0.08
Cedar Waxwing	0.15			0.01	<0.01	<0.01
Nashville Warbler			0.12	0.18	0.15	0.13
Chesnut-sided Warbler			0.12	0.28	0.07	0.10
Mourning Warbler			0.04	0.11	0.03	0.02
Common Yellowthroat			0.04	0.05	0.01	0.02
Rose-breasted Grosbeak				0.07	0.03	0.03
Indigo Bunting			0.04			<0.01
Chipping Sparrow			0.08	0.02	0.01	0.01
Clay-colored Sparrow		0.20	0.08	<0.01		<0.01
Savannah Sparrow		0.40				
White-throated Sparrow	0.05		0.16	0.24	0.12	0.10
Song Sparrow	0.30	0.60	0.88	0.04	<0.01	<0.01
Lincoln's Sparrow			0.08	<0.01	<0.01	
Common Grackle		0.60		<0.01	<0.01	
American Goldfinch		0.20	0.08	<0.01		<0.01

*Estimates are for general comparisons only and are calculated by dividing by four the results from 100m radius plots (Hawrot *et al*. 1994). Estimates from larger plots (100m radius) are not proportionally comparable for precise comparisons because species detectability is not directly proportional to plot size. Data are back transformed least-square estimates of the mean and are from the "best" of three points in a stand. "Best" was defined as the point farthest from an edge. If all three points were equally suitable, then one of the three points was selected randomly. A notation of <1% indicates that the species was sampled at one of the other points not included in this data (generally uncommon).

Permanent upland forest openings are maintained with herbaceous cover and typically have 0–30% cover of woody vegetation. They may provide constant habitat for a few species. Early successional habitat provided by clearcuts is temporary and species associated with those habitats shift constantly to newly created clearcuts or openings.

We compared songbird species composition in recent upland clearcuts (<5 years old) to that of managed upland herbaceous openings to determine whether the openings contained different species

than those in clearcuts. Such data would be valuable in understanding the merit of a management project before making investments.

Study Area

Sample sites were scattered across the Laurentian Ranger District (141,074 ha) of the Superior National Forest, which is located in a transition zone between the eastern deciduous forest and boreal forest (Mladenoff and Pastor 1993). See Green and Niemi (1980) and Green (1995) for native bird communities. Upland forests of the Laurentian Ranger District are about 60% of the total forest area. In 1993 upland forests were about 1% openings < 3 ha, 1% openings > 3 ha, 6% clearcut 0–5 years, 14% forest 5–15 years, 16% forest 15-40 years, and 62% forest over 40 years (query of USDA Forest Service database in 1993). Logging of these forests began in the 1890s. Common upland forest types included jack pine (7%), red and white pine (8%), mixed aspen-birch-balsam fir-spruce-red maple (81%), and sugar maple-basswood-yellow birch (2%). These National Forest lands were intermingled with other ownerships (total gross area about 303,127 ha).

Methods

We sampled breeding bird use of 20 upland openings < 3 ha each, 25 recent upland clearcuts (5–21 ha), and five larger upland openings (3–160 ha). The small openings had been created in the past 3–8 years by disking logging landings and seeding them with native and exotic grasses and clovers. The openings had been maintained so that cover of woody species was less than 30%, and usually less than 10%. Clearcuts had been logged in the past four years and had low woody cover, herbaceous vegetation, and often, scattered trees. Large openings were old fields that had been openings for more than ten years. Sites were selected from across the study area to represent the ecological variation present, and where locations permitted sampling multiple sites each morning. We were unable to control the amount and kind of habitat diversity (shrubs, reserve trees), forest edge, or surrounding forest. As we sampled, we observed that vegetation structure was less variable in openings than clearcuts, leading to less variation in use by bird species and we therefore sampled fewer small openings than clearcuts. Fewer larger openings were available within the study area and they were included for general comparative purposes.

Our point sampling procedures were similar to those used by the University of Minnesota Natural Resources Research Institute (NRRI, Hawrot *et al.* 1994) and C. Leece attended their field methods training. Openings less than 3 ha were smaller than the standard 100m radius plot and so we used a 50m radius plot at all sites and also a 100m radius plot (same center) in clearcuts and large openings to permit comparisons with NRRI data collected in forests. One ten-minute point count was conducted in each opening or clearcut with the observation point located subjectively to record the diversity of species likely to be found in the opening and at the opening edge (about 50m from the edge in small openings and 100m from the edge in clearcuts and large openings). Individual birds were identified by sight or sound, and approximate location within 50m of the center point shown in a sketch. In clearcuts and large openings, individual birds observed between 50m and 100m of the observation point were recorded similarly. Individuals heard or seen outside the sampling plots were also documented. Also noted was whether individuals were within the clearcut or opening, forest edge, or within the surrounding forest. Birds obviously just flying over the sample site were documented but not included in the analyses. Surveys were conducted in 1992 in clearcuts and in 1993 in herbaceous openings. During both years they were done between 5–9 A.M., and between May 26 and June 26.

Results

We observed primarily Song Sparrow (*Melospiza melodia*) and American Robin

(*Turdus migratorius*) in the herbaceous community of created small openings (Table 1). Six species were recorded within the 50m radius plot within the 10-minute point count in small openings versus 20 species in clearcuts (Table 1). If not limited by the 50m plot, a total of 14 species were recorded within small openings. With the exception of Cedar Waxwing (*Bombycilla cedrorum*), Savannah Sparrow (*Passerculus sandwichensis*), and Swamp Sparrow (*Melospiza georgiana*), these species were also observed either in or outside the 50m plot in clearcuts where a total of 41 species were observed (contact author for data on species observed outside the 50m radius plots). And, similarly, three times as many species were observed along the forest edge of clearcuts than the edge of small openings. Species in forests surrounding clearcuts and openings were fairly similar.

Song Sparrow abundance was significantly higher in clearcuts compared with small openings ($p<0.05$, Wilcoxin Rank Sums test, SAS Institute Inc. 1989), while American Robin was not significantly different ($p>0.05$). More American Robins were observed in 50m radius plots in small openings (Table 1), but the species presence was similar in small openings and clearcuts (55–60% of survey points, Table 2). Cedar Waxwing was observed in three small openings but in none of the clearcuts. All three of these species have large geographic ranges and wide habitat tolerances (Niemi 1982). Niemi *et al.* (1996) reported they had increasing populations in Minnesota, although more recently Song Sparrow has been declining in surveys in the Chippewa and Chequamegon National Forests (located in Minnesota and Wisconsin, respectively; Lind *et al.* 2002). These were the only bird species observed in more than two of the herbaceous small openings (not considering species observed (detected) in the forest edge of the opening or in the surrounding forest).

Song Sparrow and Savannah Sparrow were observed in three of five large openings (Table 1). Eastern Bluebird and Tree Swallow (*Tachycineta bicolor*) presence in large openings was related to bluebird nest boxes. Bobolink (*Dolichonyx oryzivorus*) is known only from large fields and pastures in this area and our sighting was in such an area about 160 ha in size.

Discussion

Since we found only two common species with abundant populations in both small openings and clearcuts, we did not attempt to adjust data for any differences between 1992 and 1993. An analysis of NRRI data for forests in 1992 and 1993 showed significant differences in abundance between years ($p<0.05$) for ten species (repeated measures ANOVA with adjustment for observer, Ann Lima, NRRI, 23 May 1996), including Cedar Waxwing which was less abundant in 1993 in NRRI plots, the year we collected data in openings.

A comparison of our data from clearcuts to NRRI results from forests (Hanowski and Niemi 1994, Hawrot *et al.* 1994, estimated in Table 1) supports findings by others cited previously that early succession forests (<5 years) support higher densities of several species than do mature forests. Table 1 shows results from 50m plots; contact the author for a comparison of results from 100m radius plots. In a study of breeding bird communities of broadleaf forests in the Chippewa National Forest (about 180 km southwest) and the Ottawa National Forest in upper Michigan (150 km southeast), Probst *et al.* (1992) found that bird species composition in regenerating stands was different from those in mature stands, and bird species richness and total populations were highest in regenerating stands about four years after clearcutting and in mature stands with well-developed understories.

Bird species diversity is often higher with increased habitat structure and vegetation diversity (e.g., DeGraaf and Evans 1979, Dickson *et al.* 1983, Niemi and Hanowski 1984, Merrill 1994, Pearson 1994, Hamady and Evans 1995, Green

1995). The greater number of species we observed in clearcuts versus small openings was presumably due to more varied habitats and possibly larger size (larger patches would at least theoretically have more species). Retaining large woody debris and snags, and allowing shrub cover of openings to exceed the 30% maximum recommended for deer by McCaffery *et al.* (1981), would probably increase the diversity of songbird use. Shrub openings are more difficult to maintain and managers are reluctant to let grassy openings succeed to brushier conditions for fear of losing the opening.

Grassland species, such as Eastern Bluebird, Clay-colored Sparrow (*Spizella pallida*), Savannah Sparrow, and Bobolink were observed more commonly in large openings (Table 1), and may have expanded their range after the widespread logging and burning that occurred in the northern Great Lakes around the turn of the century (Flader 1983, Stearns 1987), although metapopulations may have shifted with large fires (Heinselman 1973). Maintaining these species in northeastern Minnesota may require openings larger than 60 ha, or complexes of openings larger than 30 ha (Hamady and Evans 1995), and perhaps 4,000 ha for a viable population of Sharp-tail Grouse (*Tympanuchus phasianellus*) over time (Temple 1992). Creation or restoration of large pine barrens may be an alternative on some sandier sites (Vora 1993, Borgerding *et al.* 1995).

Both openings and clearcuts or group selection cuts may cause habitat fragmentation, a frequently hypothesized cause for declines in populations of some species of migrant birds (Robbins 1979, Whitcomb *et al.* 1981, Temple and Cary 1988). A principal difference is that permanent openings retain a sharp edge while edges of group selection cuts or clearcuts become softer with succession. The effects of habitat fragmentation in the heavily forested areas of northeastern Minnesota are unknown, although potential consequences can be postulated (see Howe *et al.* 1992 and Green 1995 for discussion on forest management and birds). Edge effects along small openings may be a concern if the openings are numerous and widespread (Thompson *et al.* 1993). While cowbird parasitism may not cause significant reproductive failure in the Upper Midwest as it can in the Central Midwest (e.g., Wood Thrush, *Hylocichia mustelina*; Robinson *et al.* 1995), recent studies in the forest landscapes of the Upper Midwest have found higher predation rates on ground nests near forest edges than in interior areas (Fenske-Crawford and Niemi 1997, Manolis *et al.* 2000, Flaspohler *et al.* 2001).

Our data and studies cited above suggest that small herbaceous upland forest openings are not critical habitat for any songbird species in northeastern Minnesota and songbirds are probably not a justification for creating small openings. They are constructed at relatively high cost ($700–$800/ha) to provide green forage for deer in spring before the forest floor turns green. Their cost-effectiveness for deer management has also been questioned (Lenarz 1987, K. McCaffery, Wisconsin Department of Natural Resources, pers. comm. 11 May 1996). While frost pockets, edaphic conditions, or repeated fires may have created and maintained some bracken grassland communities such as Curtis (1959) observed in northern Wisconsin, no species in northeastern Minnesota evolved with the exotic grasses and clovers typically seeded in small openings and skid trails. Green (1995) noted that common grassland species such as Savannah Sparrow and Vesper Sparrow (*Pooecetes gramineus*) are sometimes found in artificially created small, grassy openings in the forest, but cautioned that this habitat is probably an evolutionary sink for these individuals.

Small upland openings may be used by birds for reasons other than nesting. Some raptors may use openings for hunting. Broad-winged Hawk (*Buteo platypterus*) nest in forest, typically within 124 m of openings (roads, trails, fields, clearcuts) that are used for foraging (Keran 1978).

Keran noted that openings and the trail system that evolve from logging maintain the upland openings used by Broad-winged Hawks.

Several publications have identified priorities for avian habitat conservation and management in northern Minnesota (Niemi 1982, Coffin and Pfannmuller 1988, Green 1991, Jaakko Poyry Consulting 1992, Thompson *et al*. 1993, Green 1995, Minnesota DNR 1995, USFWS 1995, Niemi *et al*. 1996). None of these studies have identified artificial small upland forest openings as a priority habitat. Increasing songbird diversity may not be a justifiable reason for constructing and maintaining permanent small herbaceous upland openings in northeastern Minnesota as long as timber harvests maintain a dynamic pattern of temporary openings sufficient to maintain population objectives for early succession forest species.

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Literature Cited

Benyus, J. M., R. R. Buech, and M. D. Nelson. 1992. Wildlife of the Upper Great Lakes region: a community profile. USDA Forest Service Research Paper NC-301, St. Paul, MN. 27pp.

Borgerding, E. A., G. A. Bartelt, and W. M. McCown, eds. 1995. The future of pine barrens in northwest Wisconsin: a workshop summary. Wisconsin Department of Natural Ressources PUBL-RS-913-94, Madison, WI. 104pp.

Coffin B., and L. Pfannmuller, eds. 1988. Minnesota's endangered flora and fauna. University of Minnesota Press, Minneapolis, MN. 474pp.

Curtis, J. T. 1959. The vegetation of Wisconsin. University of Wisconsin Press, Madison. 657pp.

DeGraaf, R. M., and K. E. Evans, eds. 1979. Management of north central and northeastern forests for nongame birds, workshop proceedings, 23–25 January 1979, Minneapolis, MN. USDA Forest Service General Technical Report NC-51, St. Paul, MN. 268pp.

DeGraaf, R. M. 1987. Managing northern hardwoods for breeding birds. Pages 348–362 *in* R. D. Nyland, ed. Managing northern hardwoods, proceedings of a silvicultural symposium 23–25 June 1986. Society of American Foresters Publication No. 87-03, Syracuse, NY.

DeGraaf, R. M., M. Yamasaki, W. B. Leak, and J. W. Lanier. 1992. New England wildlife: management of forested habitats. USDA Forest Service General Technical Report NE-144, Radnor, PA. 271pp.

Dickson, J. G., R. N. Conner, and J. H. Williamson. 1983. Snag retention increases bird use of a clear-cut. *Journal of Wildlife Management* 47(3):799–804.

Fenske-Crawford, T. J., and G. J. Niemi. 1997. Predation of artificial ground nests at two types of edges in a forest-dominated landscape. *Condor* 99:14–24.

Flader, S.L. ed. 1983. The Great Lakes forest: an environmental and social history. University of Minnesota Press, Minneapolis. 336pp.

Flaspohler, D.J., S.A. Temple, and R.N. Rosenfield. 2001. Species specific edge effects on nest success and breeding bird density in a forested landscape. *Ecological Applications* 11:32–46.

Green, J. C., and G. J. Niemi. 1980. Birds of the Superior National Forest. USDA Forest Service, Duluth, MN. 82pp.

Green, J. C. 1991. A landscape classification for breeding birds in Minnesota: an approach to describing regional biodiversity. ***The Loon*** 63:80–91.

Green, J. C. 1995. Birds and forests, a management and conservation guide. Minnesota Department of Natural Resources. 182pp.

Hamady, M., and D. J. Evans. 1995. Distribution of shrubland and grassland birds in forest openings. USDA Forest Service Report, Rapid River, Michigan. 78pp.

Hanowski, J. M., and G. J. Niemi. 1994. Breeding bird abundance patterns in the Chippewa and Superior National Forests from 1991 to 1993. ***The Loon*** 66:64–70.

Hawrot, R. Y., J. M. Hanowski, A. R. Lima, and G. J. Niemi. 1994. 1994 annual report: bird monitoring in Great Lakes National Forests, the Chequamegon, Chippewa and Superior. SNF report No. 4, NRRI/TR-94/34. Center for Water and the Environment, Natural Resources Research Institute, University of Minnesota, Duluth.

Heinselman, M. L. 1973. Fire in the virgin forests of the Boundary Waters Canoe Area, *Minnesota Journal of Quaternary Research* 3:329–382.

Howe, R. W., S. A. Temple, and M. J. Mossman. 1992. Forest management and birds in northern Wisconsin. *Passenger Pigeon* 54(4):297–305.

Jaakko Poyry Consulting, Inc. 1992. Forest wildlife, a technical paper for a generic environmental impact statement on timber harvesting and forest management in Minnesota. Report for Environmental Quality Board. Jaakko Poyry Consulting, Raleigh, NC. 270pp + appendices.

Keran, D. 1978. Nest site selection by the broad-winged hawk in north central Minnesota and Wisconsin. *Raptor Research* 12:15–20.

King, D. I., and R. M. DeGraaf. 2000. Bird species diversity and nesting success in mature, clearcut and shelterwood forest in northern New Hampshire, USA. *Forest Ecology and Management* 129: 227–235.

King, D. I., R. M. DeGraaf, and C. R. Griffin. 2001. Productivity of early successional shrubland birds in clearcuts and groupcuts in an eastern deciduous forest. *Journal of Wildlife Management* 65(2):345–350.

Lenarz, M. S. 1987. Economics of forest openings for white-tailed deer. *Wildlife Society Bull*etin 15:568–573.

Lind, J., N. Danz, M. T. Jones, J. M. Hanowski, and G. J. Niemi. 2002. Breeding bird monitoring in Great Lakes National Forests: 1991–2002. Natural Resources Research Institute Technical Report NRRI/TR-2002/24 (http://www.nrri.umn.edu/mnbirds/reports.htm).

Manolis, J. C., D. E. Andersen, F. J. Cuthbert. 2000. Patterns in clearcut edge and fragmentation effect studies in northern hardwood-conifer landscapes: retrospective power analysis and Minnesota results. *Wildlife Society Bulletin* 28:1088–1101.

McCaffery, K. R., J. E. Ashbrenner, and J. C. Moulton. 1981. Forest opening construction and impacts in northern Wisconsin. Wisconsin Department of Natural Resources Technical Bulletin No. 120, Madison, WI. 41pp.

Merrill, S. B. 1994. Reserve timber management in northern Minnesota aspen clearcuts: an evaluation based on forest bird diversity. Univ. Minnesota, St. Paul. Unpublished masters thesis. 74pp.

Minnesota DNR. 1995. Statement of need and reasonableness in the matter of proposed amendment of Minnesota rules, chapter 6134: endangered and threatened species. Minnesota Department of Natural Resources, St. Paul, MN. 336pp.

Mladenoff, D. J. and J. Pastor. 1993. Sustainable forest ecosystems in the northern hardwood and conifer region: concepts and management. Pages 145–180 *in* G. H. Aplet, N. Johnson, J. T. Olson, and V. A. Sample, eds, Defining sustainable forestry, Island Press, Washington, D.C.

Niemi, G. J. 1982. Determining priorities in nongame management. ***The Loon*** 54:28–36.

Niemi, G. J., and L. Pfannmuller. 1979. Avian communities: approaches to describing their habitat associations. Pages 154–178 *in* R. M. DeGraaf and K. E. Evans, eds, Workshop proceedings, Management of north central and northeastern forests for nongame birds. USDA For. Serv. Gen. Tech. Rep. NC-51, St. Paul, MN.

Niemi, G. J., and J. M. Hanowski. 1984. Relationships of breeding birds to

habitat charateristics in logged areas. *Journal of Wildlife Management* 48: 438–443.

Niemi, G., A. Lima, J. Hanowski and L. Pfannmuller. 1996. Recent trends in breeding birds in Minnesota and Minnesota forested regions, 1966–1993. ***The Loon*** 67:191–201.

Pearson, C. W. 1994. Effects of habitat and landscape patterns on avian distribution and abundance in northeastern Minnesota. University of Minnesota, Duluth, MN. Unpublished Masters thesis. 95 pp.

Probst, J. R., D. S. Rakstad, and D. J. Rugg. 1992. Breeding bird communities in regenerating and mature broadleaf forests in the USA Lakes States. *Forest Ecology and Management* 49:43–60.

Robbins, C. S. 1979. Effect of forest fragmentation on bird populations. Pages 198–212 *in* R. M. DeGraaf and K. E. Evans, eds., Management of north central and northeastern forests for nongame birds, workshop proceedings. USDA Forest Service General Technical Report NC-51, St. Paul, MN.

Robinson, S. K., F. R. Thompson, T. M. Donovan, D. R. Whitehead, and J. Faaborg. 1995. Regional forest fragmentation and the nesting success of migratory birds. *Science* 267:1987–1990.

SAS Institute Inc. 1989. SAS/STAT user's guide, version 6, fourth edition. SAS Institute Inc., Cary, NC Vol. 1. 943pp.

Stearns, F. 1987. The changing forest. Pages 85–88 in Proceedings of the 1987 Society of American Foresters convention, October 18–21, Minneapolis, MN.

Taylor, C. M., and W. E. Taylor. 1979. Birds of upland openings. Pages 189–197 in R. M. DeGraaf and K. E. Evans, eds. Management of north central and northeastern forests for nongame birds, workshop proceedings, 21–25 January 1979, Minneapolis, MN. USDA Forest Service General Technical Report NC-51.

Temple, S. A., and J. R. Cary. 1988. Modelling dynamics of habitat-interior bird populations in fragmented landscapes. *Conservation Biology* 2:340–347.

Temple, S. A. 1992. Population viability analysis of a Sharp-tailed Grouse metapopulation in Wisconsin. Pages 750–758 *in* D. R. McCullough and R. H. Barrett, eds, Wildlife 2001, International Conference on Population Dynamics and Management of Vertebrates. Elsevier Science Publishers, New York.

Thompson, F. R., S. J. Lewis, J. Green, and D. Ewert. 1993. Status of neotropical migrant landbirds in the Midwest: identifying species of management concern. Pages 145–171 in D. M. Finch and P. W. Stangel, eds, Status and management of neotropical migratory landbirds. USDA For. Serv. Gen. Tech. Rep. RM-229.

Thompson, F. R., and R. M. DeGraaf. 2001. Conservation approaches for woody, early successional communities in the eastern United States. *Wildlife Society Bulletin* 29:483–494.

Titterington, R. W., H. S. Crawford, and B. N. Burgason. 1979. Songbird responses to commercial clear-cutting in Maine spruce-fir forests. *Journal of Wildlife Management* 43:602–609.

USFWS. 1995. Migratory nongame birds of management concern in the United States: the 1995 list. Office of Migratory Bird Management, U.S. Fish and Wildlife. Service, Washington, D.C. 25pp.

Vora, R. S. 1993. Moquah Barrens, pine barren restoration experiment initiated in Chequamegon National Forest. *Restoration & Management Notes* 11:39–44.

Whitcomb, R. F., C. S. Robbins, J. F. Lynch, B. L. Whitcomb, M. D. Klimkiewicz, and D. Bystrak. 1981. Effects of forest fragmentation on avifauna of the eastern deciduous forest. Pages 125–205 *in* B. Burgess and D. Sharpe, eds., Forest Island Dynamics in Man-dominated landscapes, Springer-Verlag, New York.

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The Fall Season
(1 August to 30 November 2002)

Paul E. Budde and Peder H. Svingen

During this season the joys of birding were, for the most part, subtle: first county records for Regular species, late migrant warblers, and good numbers of infrequently encountered Regulars such as Carolina Wren, Black-throated Blue Warbler and Nelson's Sharp-tailed Sparrow. More flashy were the discoveries of Swallow-tailed Kite, Rock Wren, and Western Tanager, but each was enjoyed by only a few observers. Only the ninth state record Band-tailed Pigeon stayed around for all to see — thanks to the gracious hospitality of Carol & Hank Tressel. Other rarities were either holdovers from the summer, e.g., the Baird's Sparrow in Polk County, or species that have become almost expected this time of year at the right location — such as Black-headed Gull, Eurasian Collared-Dove, and Great-tailed Grackle.

Birders found only one **Red-throated Loon** on Lake Superior, but as many as five **Pacific Loons** were tallied in the state. Long overdue was Cook County's first Pacific Loon. Much more unexpected was one at Black Dog Lake, Dakota County. **Common Loons** were widespread, but fewer staged on the large interior lakes of northern Minnesota. Numbers of **Horned Grebes** were down. A first county **Western Grebe** was in Mille Lacs, while an adult **Clark's Grebe** with two chicks continued from the summer season on Thielke Lake in western Minnesota.

Good numbers of **Great Egrets** were found in 22 north counties after an outstanding post-breeding dispersal. **Snowy Egrets** visited two western Minnesota locations. **Cattle Egrets** were in St. Louis and three southern counties. Two **White-faced Ibis** were found in Traverse County, while unidentified ***Plegadis*** were in Murray and Becker counties.

Greater White-fronted Geese passed through in small numbers. Apparently healthy individuals of this species and **Snow Goose** were found in August/early September, suggesting the possibility of summering in the state. **Ross's Goose**, also present in small numbers, appeared in four north and six south counties. Two probable hybrid **Snow x Ross's Geese** were reminders to identify these species with care. **Mute Swans** in Wright County and a first county record in McLeod marked the fifth consecutive fall for this species just west of the Twin Cities metro area.

The best waterfowl counts came from Big Stone N.W.R. and Pool #8 in Houston County. The most interesting waterfowl reports were "inland" scoters. All three species were scarce on Lake Superior, where expected. Instead, **Surf Scoters** were found in 14 counties away from the North Shore (mostly on sewage lagoons), **White-winged Scoters** were in Brown and Cass, and **Black Scoters** were in Hennepin and Meeker. counties A few **Long-tailed Ducks** were also discovered away from the big lake. A report of an adult female **Smew** brought excitement until in-hand examination (it had been shot by a hunter) revealed evidence of recent captivity.

Reports of a **Swallow-tailed Kite** in Scott and Dakota counties were probably the same bird. This was only the second report of this species since 1976. Eight dark-morph **Broad-winged Hawks**, including four in the same day, made an appearance at Hawk Ridge Nature Reserve in Duluth. A carefully catalogued count of **Red-tailed Hawk** plumages at Hawk Ridge provided an interesting study of their diversity. Within a late-September kettle of Swainson's Hawks in Jackson County was an immature **Ferruginous Hawk**; an adult was documented at Felton Prairie in mid-October. **Rough-legged Hawks** showed up late at Hawk Ridge. They were reported from western Minnesota almost a month

earlier. The daily high count for **Golden Eagle** at Hawk Ridge was 26 — just 3 short of the previous year's record. **American Kestrel** migration at Hawk Ridge set a season and daily record, the latter associated with a major movement of more than 30,000 dragonflies. Two reports of a dark-morph **Gyrfalcon** in Cook County, separated by four days and 35 miles of coastline, may have been the same bird. **Prairie Falcons** were found in two locations.

Two lingering rails were unusual. In late October, a **Yellow Rail** was seen skulking along the edge of a small pond in downtown Grand Marais. During mid-November, a **Virginia Rail** was in Bloomington. **Piping Plovers** were found in four counties, including the first in Jackson. Fifty **American Avocets** were scattered among ten different locations. Over **13,000 Pectoral Sandpipers** at North Heron Lake, Jackson County, established a record-high count for this species. The movement of **Buff-breasted Sandpipers** though the state was outstanding for the second consecutive fall. A **Ruff** was found in Dakota County in early August. Over 730 **Red-necked Phalaropes** were tallied from across the state including a record-high 220 at the Thief River Falls lagoons, Pennington County.

The only jaegers were one or two adult **Parasitics** found near the Superior Entry during the last week of September. A juvenile **Little Gull** on Lake Winnibigoshish furnished a second county record for Itasca. Along the Minnesota/Iowa border an adult **Black-headed Gull** spent over a month at the north shore of Spirit Lake. This was the fifth consecutive fall for this species at this location. Counts of **Bonaparte's Gulls** at Lakes Winnibigoshish and Mille Lacs were down, mirroring the decline in Common Loons this season at these staging areas. **Thayer's Gulls** arrived later than in recent years. A first-winter **Iceland Gull** appeared at Black Dog Lake just before the end of the season. Apparently, the many reports of **Lesser Black-backed Gull** in Dakota and Hennepin counties all referred to the same adult, as nobody reported multiple individuals or other ages. **Glaucous Gull** was also late and scarce — only two north first-winters and one south adult appeared before the end of the season.

A ninth state record **Band-tailed Pigeon** arrived in time for Thanksgiving and was seen by many as it eventually overwintered in Dakota County. **Eurasian Collared-Doves** continued to be reported in Blue Earth and Houston counties. Continuing the trend set by Arctic gulls, winter owls were also scarce and late. Snowy Owls first appeared (based on dated reports) in late November. **Short-eared Owls** were in three western and three eastern counties. **Northern Hawk Owl** and **Boreal Owl** were apparently absent. At H.R.N.R., numbers of banded **Northern Saw-whet Owls** increased by 18% over 2001 totals. The peak **Common Nighthawk** migration, chronicled at Lakewood Pumping Station in Duluth, occurred, as expected, during the last week of August. Only one **Three-toed Woodpecker** could be mustered, but numbers of **Black-backed Woodpeckers** were up along the North Shore. At least 25 were counted at Hawk Ridge alone.

A singing **Acadian Flycatcher** in Anoka County was of interest. An unidentified ***Empidonax*** in Beltrami County on 7 October was late — regardless of the species. Much later was a well-documented **Least Flycatcher** in Hennepin County in early November. Observers in Cook County carefully studied a late October **Great-crested Flycatcher** to preclude the possibility of a vagrant *Myiarchus* of some other species.

Loggerhead Shrikes lingered in Vermilion Township, Dakota County, where several pairs successfully nested. Additional Loggerheads were found in Clay, Kandiyohi, Otter Tail, and Yellow Medicine counties. **Northern Shrikes** showed up in early October, but were not found along the North Shore until near the end of the month. Quite late was the **Blue-headed Vireo** discovered in Hennepin County in early November. Also in the first week of November was a record-late **Northern Rough-winged Swallow** in Scott County.

A **Rock Wren** in residential Bloomington, Hennepin County, puzzled the observer for a few days, but field notes made clear its identity. This species has been found in Minnesota during the fall season about once a decade. Seven different **Carolina Wrens**, including first county records in Carlton, Chisago, and Lake, were noteworthy and continued the trend noted in the summer season. **Blue-gray Gnatcatchers** were, for the first time since 1998, not found along the North Shore of Lake Superior.

Three **Mountain Bluebirds** were seen — two along the North Shore and one at the Louisville Swamp in Scott County. Seven **Townsend's Solitaires** included five along the North Shore and first county records in Sibley and Winona. Reported through Cornell's Project Feederwatch was a **Varied Thrush** in Crow Wing County. In addition to a lingering **Northern Mockingbird** in Empire Township, Dakota County (see summer report), individuals were found in Olmsted, Hennepin, Ramsey, St. Louis, and Cook counties. **Bohemian Waxwings** were scarce, though a September report from Hubbard County preceded the recent median north arrival date and one strayed as far south as Scott County.

As an indicator of the lateness of fall passerine migration, among the warbler species regularly found north and south, 65% lingered later than the median north departure and 73% lingered later than the median south departure dates. Particularly late migrants included **Tennessee**, **Nashville**, **Yellow**, **Magnolia**, **Black-throated Green** (25 days later than the prior record), and **Black-and-white** warblers. A **Blue-winged Warbler** banded at H.R.N.R. was only the second for St. Louis County. South reports of **Black-throated Blue Warblers** came from Anoka, Ramsey, and Rice counties plus *eight* birds in Hennepin County! A **Louisiana Waterthrush** at Wood Lake in Hennepin was a pleasant surprise, while the only **Yellow-breasted Chat** was seen in early September in Lac Qui Parle County.

In November, two **Summer Tanagers** were found at opposite corners of the state — one in the southeast and one in the northwest. The bird in Pennington County lingered for over three weeks. In contrast, the latest **Scarlet Tanager** departed the state in October. A well-documented **Western Tanager** provided only the third accepted record of this species in the fall.

Four **Spotted Towhees** were found in the western third of the state. Lingering from the summer season was a **Baird's Sparrow** in Polk County. **Henslow's Sparrows** were found at Big Stone N.W.R. **LeConte's Sparrows** peaked at the end of September, when 30 were found in a single field in Meeker County. Among them were four **Nelson's Sharp-tailed Sparrows**, for which there were many more reports than usual (nine counties). **Smith's Longspurs** were found as usual in Cottonwood County (at Red Rock Prairie and Jeffers Petroglyphs), and along the North Shore.

Great-tailed Grackles were reported only from Jackson County at their somewhat reliable location along state highway 86. Winter finches made a poor showing, with very few reports of **Pine Grosbeak**, **Pine Siskin**, **Red Crossbill**, **Common Redpoll**, and **Evening Grosbeak**. Stay tuned for the winter report to learn if they were truly absent or just late in arriving.

Weather Summary: Rainfall across much of Minnesota was well above historical averages in August, continuing a pattern established in June and July. Statewide, the month ranked as the sixth wettest August ever recorded, though temperatures were close to normal. September brought drier weather to the western and northern portions of the state, but central and east-central regions again experienced above average rainfall. Temperatures were generally above normal for the first half of the month, then cooled to below normal for the last half. Early October rains in the south and heavy snow 20–21 October in central Minnesota pushed precipitation levels above normal. Temperatures were extraordinarily cold during October — the coldest since 1925. Many regions experienced mean temperatures five to eight degrees colder than the norm, more akin

to mid-November. November precipitation was very light and temperatures returned to normal. A cold front moving through on the 29th brought sustained winds of 30 to 40 mph.

Undocumented reports: Plegadis 9/4 Lincoln (Tyler W.M.A.), 9/4 Kandiyohi (4 at New London), 9/5 Lyon (Island Lake); White-tailed Kite 8/18 Clay (Rushfeldt Lake, Skree Township); Mississippi Kite 9/3 Dakota (Apple Valley); Ferruginous Hawk 10/21 Brown (Burnstown Township); Great-tailed Grackles 8/11 Cottonwood (Bat Lake).

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KEY TO THE *SEASONAL REPORT*

1. Upper case (**LEAST TERN**) indicates a Casual or Accidental species in the state.
2. Dates listed in bold (**10/9**) indicate an occurrence either earlier, later or within the three earliest or latest dates on file.
3. Counties listed in bold (**Aitkin**) indicate an unusual occurrence for that county.
4. Counties with an underline (**Becker**) indicate a first county record.
5. Counties listed in italics (*Crow Wing*) indicate a first county breeding record.
6. Brackets [ ] indicate a species for which there is reasonable doubt as to its origin or wildness.
7. Counts listed in bold (**150**) indicate a total within or exceeding the top three high counts for that species.
8. Dagger "†" preceding observer's initials denotes documentation was submitted.
9. Species documented with a photograph are denoted with "ph".
10. Species documented with a digital photograph or video tape are denoted with "v.t."

The *Seasonal Report* is a compilation of seasonal bird sightings from throughout Minnesota. We particularly invite reports from parts of the state that have been neglected or covered lightly in past reports. To become a contributor, request a report form from the Editor of the *Seasonal Report*, Peder H. Svingen, 2602 E. 4th St., Duluth, MN 55812–1533.

Red-throated Loon — Only report: 10/8–10 St. Louis (juvenile at Duluth) †MH, †PHS (***The Loon*** 75:118–119).

Pacific Loon — Five documented reports: 10/3 **Dakota** (juvenile at Black Dog L.; ***The Loon*** 75:119) †ADS, †TAT, †CRG, ph. CFa, 10/26–27 **Cook** (Five Mile Rock) †CBe *et al.* 10/31–11/2 Lake (Burlington Bay) †JWL *et al.*, 11/16 Cook (Five Mile Rock) †JPE, 11/17 Lake (adult at Burlington Bay) †PCC, †PHS. Observers were unable to refind Pacific Loons at the Five Mile Rock and Burlington Bay locations on subsequent dates.

Common Loon — Reported from 21 north and 19 south counties in all regions. Pre-migratory staging peaked well below the recent fall average at L. Winnibigoshish (455 on 10/7) and Mille Lacs L. (813 on 10/14) PHS. Late north 11/24 Cook PHS; but also see winter report.

Pied-billed Grebe — Reported from 27 north and 39 south counties. Late north 11/1–4 in four counties, 11/10 Otter Tail DPS. Late south 11/28 Waseca JPS, but also see winter report.

Horned Grebe — Reported from only

seven north and four south counties. Early north 8/8 St. Louis (3 at Stoney Pt.) JWL, only August report. Early south dates not representative. Late north 11/30 Lake JWL, also see winter report. Late south 11/16 Dakota JPM, 11/17 Hennepin m.obs.

Red-necked Grebe — Reported from 13 north and 12 south counties, including 10/25 Dakota (2 locations) ADS, TAT. Late north 11/22 Lake JWL. Late south 11/17 Hennepin CRM.

Eared Grebe — Reported from eight north and nine south counties. Only eastern report: 8/10 Hennepin OLJ. Apparently departed about one month earlier than recent medians north (10/10) and south (11/4). Late north 9/13 Polk EEF. Late south 10/2 Big Stone RBJ.

Western Grebe — Reported from 8 north and 12 south counties, including 10/23 **Mille Lacs** (Wigwam Bay, Mille Lacs L.) PHS. Late north 11/2 Todd JSK, SDu. Late south 11/29 Hennepin (L. Harriet) PEB.

Clark's Grebe — Only report: adult with two chicks (see summer report) 8/11 Big Stone (Thielke L.) †PHS, FJN.

American White Pelican — Observed in 14 north and 28 south counties in all regions. Unusual locations 9/14, 9/24 Lake JWL. Total 136 at H.R.N.R. in Duluth, including 9/10 (41) and 9/22 (48) FJN, DSC. Late north 10/13 Beltrami DPJ. Late south 11/24 Hennepin DWK.

Double-crested Cormorant — Seen in 26 north and 37 south counties. High count 8/22 Lake of the Woods (3000+ passed Rocky Pt.) KJB. Late north 11/10 Otter Tail DPS. Please see winter report for late south migrants.

American Bittern — Reported from five north and nine south counties. Late north 9/29 Aitkin WEN. Late south 10/26 Jackson BRB, only October report.

Least Bittern — All north reports: 8/15 Becker (Detroit Lakes) *fide* JMJ, 9/1 Polk (Maple L.) EEF. Reported south in early August from Big Stone, Kandiyohi, Yellow Medicine.

Great Blue Heron — Reported from 28 north and 41 south counties.

Great Egret — Dramatic post-breeding dispersal north of usual range, especially into the Northwest and Northeast regions between mid-August and late September. Observed in 22 north counties as far northwest as Marshall, Pennington, Polk, and Roseau counties, plus Aitkin, Cass, and Wadena in the North-central and throughout the Northeast. Numbers up at Agassiz N.W.R., Marshall County (peak 40 on 9/1, CRM *et al.*). In the Northeast, reported from three Carlton County locations as late as 10/6 LAW, five St. Louis County locations as far north as Melrude (9/1, BKY) and Embarrass (9/18, DBF), four Lake County locations including 9/9 (2 at Silver Bay, JWL), and at Lutsen, Cook County, 8/18 (BKY) and 9/13 (KRE). Late north 10/27 Otter Tail DTT, SMT, 10/28 Clay RHO. Reported from 36 south counties including (late south) 11/16 Scott RBJ and Winona RMD, RHy, 11/28 Dakota (Black Dog L.) JPM, but also see winter report.

Snowy Egret — All reports: 8/24 Douglas (3 in Evansville Twp.) †JPE, **10/8** Otter Tail (Rush Lake W.P.A., record-late north date) EJE.

Cattle Egret — All reports: 9/6 Lincoln (2 at Tyler W.M.A.) KJB, 9/13 **St. Louis** (location?) MJF, 10/19 Blue Earth (Mapleton lagoons) CRG, JWH, 10/20 Freeborn AEB.

Green Heron — Reported from 19 north and 24 south counties. Late north 9/21 Otter Tail DTT, SMT, 9/22–28 St. Louis m.obs. Late south 10/1 Big Stone BEO and Ramsey REH, 10/25 Dakota ADS, TAT.

Black-crowned Night-Heron — Reported from four north counties, including

(late north) 9/29 Becker DFN. Observed in 13 south counties, but none later than 10/20 Freeborn AEB and Hennepin SWe.

Yellow-crowned Night-Heron — No fall reports since 1993.

WHITE-FACED IBIS — Two seen in flight 9/11 Traverse (Mud L.) †KJB. Also see undocumented reports.

PLEGADIS*, sp?** — Singles documented 8/24 Murray (near Dovray) RMD, RHy, 10/10–12 Becker (Hamden Slough N.W.R.) MM, ph. †PHS (The Loon*** 75:41).

Turkey Vulture — Reported from 22 north and 30 south counties. Late north 10/26 Morrison and Todd MRN, 11/1 St. Louis (H.R.N.R., Duluth) FJN *et al.* Late south 10/22 Stearns RPR, 10/28 Wabasha CRM. Also see Table 1.

Greater White-fronted Goose — Only north observations: 10/4–11 **Lake** (3 at Two Harbors) JWL, m.obs., 11/10 Otter Tail DPS. Low numbers (single digits) observed in six south counties. Possibly summering was an apparently healthy individual 9/6 Lac Qui Parle (Salt L.) KJB. Only other September report: 9/24 Lac Qui Parle (Big Stone N.W.R.) BEO. Late south 11/16 Stearns BWF, but also see winter report.

Snow Goose — Reported from 8 north and 18 south counties. Early north 9/29 Lake JWL, 10/10 Polk CMN. Early south (summering?) 8/24 Brown (blue-morph adult at Mound Creek C.P.) BSm, 9/2 Nicollet (1) LWF, 9/19 Houston (1) FZL. High count 11/2 Kandiyohi (1500 near L. Lillian) DMF. Late north 11/1–2 in three counties, 11/3 Cook CRM and Lake JWL. Please see winter report for late south migrants.

Ross's Goose — All were single birds unless otherwise indicated. All north reports: 10/18 Traverse RBJ, 10/20–21 **Lake** (juvenile at Two Harbors, second county record) TWa, v.t. JWL, KRE, †PHS, late October Grant (Mud L.) EJE, 10/26 Otter Tail (3 at Orwell W.M.A.) †PHS. All south reports: 10/30–11/16 Steele (Owatonna) †NFT *et al.*, 11/2 Freeborn (number?) AEB, 11/9–19 McLeod (juvenile at Otter L. near Hutchinson) RMD, RHy *et al.*, 11/14 Olmsted (Rochester) PWP, 11/14–23 Mower (East Side L., Austin) RNS, m.obs., 11/19 Pipestone (Split Rock Creek S.P.) RBJ.

Snow Goose x Ross's Goose — Probable hybrids reported late September Dakota (L. Byllesby) †ADS, JPM, 11/20 Scott (Elko) JEB.

Canada Goose — Reported throughout the state and all season long.

Mute Swan — All reports: 10/27 Washington (3 at L. Carnelian) JMP, 11/23 **McLeod** (2 near Hutchinson) †PLJ, 11/23 Wright (Cokato) PLJ. Probable escapee 8/12, 9/2 Stearns STW. Another wandered back and forth between Dakota (Black Dog L.) and Hennepin (Old Cedar Ave.) through end of period.

Trumpeter Swan — Seasonal total >238 in 14 north and 15 south counties (17 reports omitted number of birds). First county occurrence (since status became Regular) early August **Fillmore** (Lanesboro) NBO.

Tundra Swan — Reported from 13 north and 16 south counties. Early north 10/10 Polk CMN, 10/19–26 in six counties. Early south 10/5 Winona (12) PWP, 10/13 Olmsted (3) PWP. An unspecified number of Tundra Swans 9/15 Ramsey were probably Trumpeters (Tundra Swan's 17-year median south arrival date 10/13). High count 11/2 Houston (12,000+ on Pool #8, includes birds in Wisconsin) PEJ, remarkably consistent with U.S.F.W.S. aerial survey 11/12 (11,175 on Pool #8) *fide* RPR. Please see winter report for late migrants.

Wood Duck — Seen in 26 north and 38 south counties.

Gadwall — Reported from 10 north and 20 south counties. Late north 11/2 Pen-

nington JMJ, but also see winter report.

American Wigeon — Reported from 8 north and 19 south counties. High count 10/1 Lac Qui Parle (523 at Big Stone N.W.R.) BEO. Late north (recent median 11/30) 11/10 Pennington JMJ. Please see winter report for late south migrants.

American Black Duck — All north reports: Beltrami (8/23, DPJ), Lake, Cook, Otter Tail, St. Louis. Early south 8/24 Dakota JPM, ADS, TAT, 9/19 Freeborn AEB. Also seen in nine additional south counties.

Mallard — Reported throughout the state. No significant counts.

Blue-winged Teal — Reported from 26 north and 31 south counties. High count 8/15 Jackson (5900 at North Heron L.) KJB. Late north 10/12 Aitkin WEN, 10/20 Pennington JMJ. Late south 10/28 Olmsted PWP, 10/29 Dakota PEJ.

Northern Shoveler — Reported from 17 north and 29 south counties. High count 10/26 Pennington (1200) JMJ. Late north 10/28 Polk (60) EEF, 11/1 Otter Tail DPS. Please see winter report for late south migrants.

Northern Pintail — Reported from 14 north and 18 south counties. High count 10/1 Lac Qui Parle (2021 at Big Stone N.W.R.) BEO. Late north 11/3 St. Louis JWL, 11/6 Todd JSK, SDu, but subsequently overwintered north.

Green-winged Teal — Reported from 21 north and 21 south counties. High count 9/24 Lac Qui Parle (1550 at Big Stone N.W.R.) BEO. Late north 11/17 Cook PCC, PHS. Please see winter report for late south migrants.

Canvasback — Observed in 13 north and 20 south counties in all regions, including 10/26–11/3 Cook m.obs. High count 11/12 Houston (**138,975** on Pool #8, includes birds in Wisconsin) *fide* RPR. Late north (recent median 11/24) 11/10 Otter Tail DPS. Please see winter report for late south migrants.

Redhead — Reported from 14 north and 24 south counties. No significant high counts. Please see winter report for late migrants.

Ring-necked Duck — Seen in 21 north and 22 south counties. No significant high counts. Late north 11/14 St. Louis LAW, but see winter report.

Greater Scaup — Reported from only five north and four south counties. Early north 10/3 St. Louis JWL. Early south 10/5 Ramsey JJS. See winter report for lingering migrants north and overwintering south.

Lesser Scaup — Reported from 13 north and 25 south counties. No significant high counts.

Harlequin Duck — Presumably the same flock of **six** immature/females at Artists Pt., Cook County, was found independently 9/26 (DPJ), 10/6 (KRE *et al.*), 10/10 (ph. TM) — record-high count. One was seen 10/26–27 Cook (Grand Portage) m.obs.

Surf Scoter — Scarce on L. Superior, where first reported 9/30 St. Louis JJS, 10/9 Lake JWL. Unprecedented number of "inland" reports — all discovered between 10/3 Itasca (2 at Island L.) RHy and 11/5 Rice (2 at French L.) TFB. Most involved small numbers of immature/female birds at sewage lagoons. High counts 10/19–22 Cottonwood (5 at Mountain Lake lagoons) CRG, JWH *et al.*, 10/20 Blue Earth (6 at Lura L., probably not same as 3 at Mapleton lagoons the previous day) CRM, LBF. First county records 10/19–22 **Brown** (Boise L.) RBW *et al.*, 10/20–26 **Pennington** (Thief River Falls lagoons) †JMJ, SKS, 10/22 **Nicollet** (Nicollet lagoons) CRM, LBF. One to three birds also reported from Aitkin, Beltrami, Cass, Dakota, Meeker, Mille Lacs, Traverse.

White-winged Scoter — Scarce on L. Superior for the third consecutive fall.

Early north 10/7 Lake (4 at Knife River) JWL, 10/9 Lake (3 at Agate Bay) JWL. High count 10/25 Cook (15) PEJ. Many reports between 10/25 and 11/29 of one at Silver Bay, Lake County, probably the same individual. All reports away from L. Superior: 10/21–26 **Brown** (Sleepy Eye lagoons) DDM, BSm, m.obs., 10/22 Brown (8 at Boise L.) CRM, LBF, 10/24 Cass (3 at L. Winnibigoshish) PHS.

Black Scoter — Scarce on L. Superior for the third consecutive fall (max. 6 in any location). Early north 9/28 St. Louis *fide* AXH, 10/18+ Cook m.obs. Only reports away from L. Superior: 10/19 Meeker (L. Washington) DMF, 11/22 Hennepin (2 shot at L. Independence) *fide* JK, 11/30 Meeker (2 at L. Minnie Belle) DMF.

Long-tailed Duck — Early north 10/17+ Cook (2 at Good Harbor Bay) AXH, PHS, JPE. High count 10/27 Cook (110 in two flocks near Five Mile Rock) JWL *et al*. All reports away from L. Superior: one shot by hunter late October Otter Tail (five miles west of Pelican Rapids) *fide* JMJ, 11/2 Kandiyohi (L. Lillian) DMF, 11/10 Hennepin (4 at Minnesota Valley N.W.R.) BBB.

Bufflehead — Reported from 15 north and 22 south counties. Early south **8/17** (possibly oversummering) Isanti CAK, JJS, 10/7 Hennepin (1) TAT, 10/8 Lac Qui Parle (3) BEO. No significant high counts.

Common Goldeneye — Observed in 23 north and 16 south counties. Early south 10/17 Olmsted PWP, 10/20 Meeker HHD. No significant high counts.

[**SMEW**] — An adult female associating with Common Goldeneye, Bufflehead, and Common Mergansers was shot by a hunter 11/6 St. Louis (Island L., north of Duluth). Examination in the hand (KRE, JWL) revealed evidence of prior captivity (***The Loon*** 75:44–45).

Hooded Merganser — Reported from 24 north and 27 south counties in all regions except the Southwest. High counts 11/4 Big Stone (100+) RBJ, 11/8 Carlton (100+) RBJ.

Common Merganser — Reported from 13 north and 15 south counties; like last fall, none in the Northwest or Southwest. Early south 9/10 Benton HHD, only September report. Local concentrations seen 11/16 Hubbard (300) RCS, 11/23 Otter Tail (300+) SPM.

Red-breasted Merganser — Scarce (only reported from 10 counties). Early north (away from L. Superior) 10/20 Wadena PJB, 10/26 Beltrami DPJ. Early south (excluding injured bird at Paynesville) 11/2 Freeborn AEB, 11/11 Hennepin TAT.

Ruddy Duck — Reported from 11 north and 32 south counties in all regions except the North-central. Unusual locations 10/25 Cook (Grand Portage) m.obs., 10/31 Cook (Grand Marais) JCG, 11/8 Lake (female at Flood Bay) JWL. High counts 10/15 Traverse (1025) RBJ, 10/21 Jackson ("thousands" at South Heron L.) CRM, LBF. Late north 11/10 Otter Tail DPS. Please see winter report for late south migrants.

Osprey — Reported from 15 north and 24 south counties, though none in the Southwest. Late north 10/17 Otter Tail DTT, SMT, 11/1 Otter Tail DPS. Late south 10/25 Freeborn AEB, 10/31 Steele NFT. Also see Table 1.

SWALLOW-TAILED KITE — Two documented reports, presumably referring to the same individual: 8/11 **Dakota** (U.S. highway 52, near Hampton) †LWC, and 8/25 **Scott** (county road 46, just north of county road 2) †DAB. Originally reported (CVK) at the latter location on the 11th.

Bald Eagle — Reported from 26 north and 36 south counties. See Table 1 for high count.

Northern Harrier — Seen in 21 north and 28 south counties. Late north 11/10 St. Louis (H.R.N.R., Duluth) FJN, DSC and

Species	Aug	Sep	Oct	Nov	Total	Peak	Peak#
Turkey Vulture	16	836	786	1	1639	9/22	303
Osprey	49	466	24	-	539	9/12	68
Bald Eagle	44	567	1671	1555	3837	10/31	324
Northern Harrier	86	288	277	13	664	10/06	53
Sharp-shinned Hawk	382	11670	6763	36	18851	9/10	1542
Cooper's Hawk	14	75	82	2	173	10/1,12	17
Northern Goshawk	5	31	329	288	653	11/06	37
Red-shouldered Hawk	-	1	5	-	6	10/13	4
Broad-winged Hawk	342	55410	920	-	56672	9/22	20493
Swainson's Hawk	-	3	-	-	3	9/14	2
Red-tailed Hawk	55	929	8577	1473	11034	10/31	1202
Rough-legged Hawk	-	-	220	329	549	10/31	74
Golden Eagle	-	2	74	100	176	10/31	26
American Kestrel	283	3020	466	-	**3769**	9/09	**760**
Merlin	17	110	122	4	253	10/01	32
Peregrine Falcon	2	73	18	-	93	9/19,10/2	8

Table 1. Fall 2002 Hawk Ridge Nature Reserve composite totals

Wadena PJB, but also see winter report.

Sharp-shinned Hawk — Reported from 15 north and 26 south counties. Early south 8/28 Dakota SWe, 9/7 Hennepin SLC. Late north 11/19, 11/20 St. Louis (H.R.N.R., Duluth) FJN, DSC *et al.*, but also see winter report.

Cooper's Hawk — Observed in 14 north and 22 south counties. Late north 11/12, 11/22 St. Louis (H.R.N.R., Duluth) FJN, DSC *et al.* Please see winter report for overwintering south.

Northern Goshawk — All north reports: Aitkin, Cass, Cook, Lake, Pine, St. Louis, Wilkin (10/30, SPM). Also see Table 1. All south reports: 9/23 Dakota SWe, 10/29, 11/30 Rice TFB.

Red-shouldered Hawk — Reported north in Becker, Cass, Kanabec, Morrison, Otter Tail, St. Louis (9/3, 10/13, 10/19 at H.R.N.R., Duluth, FJN, DSC *et al.*), and Todd. Observed in 11 south counties as far west as 8/1 Pope RBJ.

Broad-winged Hawk — Reported from 14 north and 18 south counties, but only Yellow Medicine (10/3, BRL) in the Southwest. Eight dark morphs at H.R.N.R. in Duluth, four of these 9/11 (FJN, DSC). Local concentration 9/14 Ramsey (509) TAT, also see Table 1. Late north 10/20, 10/22 St. Louis (H.R.N.R.) FJN, DSC *et al.* Late south 10/16 Sherburne PLJ, 10/18 Goodhue FVS.

Swainson's Hawk — Only north reports: 8/12 Traverse CRM, 9/14, 9/15, 9/22 St. Louis (H.R.N.R., Duluth) FJN, DSC *et al.* High count 9/21 Jackson (kettle of 8) KRE *et al.* Reported from seven south counties, including (late south) 10/5 McLeod DMF.

Red-tailed Hawk — Reported from 28 north and 42 south counties statewide. Highlights at H.R.N.R., Duluth included 87 dark morphs, 7 partial albinos, 2 total albinos, 2 adult "Krider's" and several intergrades, but no "Harlan's" (FJN, DSC *et al.*).

Ferruginous Hawk — Immature light morph in kettle of eight Swainson's Hawks **9/21** Jackson (2.5 miles south of Sandy Pt. C.P.) †KRE *et al.*, adult light morph 10/12 Clay (Felton Prairie) †PHS. Also see undocumented reports.

Rough-legged Hawk — Reported from 14 north and 10 south counties. Arrived later than usual statewide, especially at H.R.N.R. in Duluth, where first recorded

10/20 FJN, DSC. Early north 9/21 Red Lake JMJ, 10/3 Beltrami DPJ. Early south 10/17 Jackson PEB, 10/22 Hennepin SLC and Stearns RPR.

Golden Eagle — Multiple sightings in Wilkin SPM, including 10/27, 11/14, 11/27 (3). All other north reports: 11/2 Lake (2) m.obs., 11/10 Otter Tail DPS, plus St. Louis (see Table 1). High count 10/31 (26 at H.R.N.R., Duluth) FJN, DSC; compare with record-high count (29 at H.R.N.R., 26 October 2001). Early north **9/16**, 9/22, 10/2 (H.R.N.R., Duluth) FJN, DSC *et al.* Only south report: 11/16 Winona (adult) RMD, RHy.

American Kestrel — Observed in 25 north and 42 south counties. Record-high season at H.R.N.R. in Duluth (Table 1). Record-high count 9/9 St. Louis (**760** at H.R.N.R.) FJN, DSC *et al.*, associated with migration of an estimated 30,000+ dragonflies. Late north 11/3 Wadena PJB, 11/6 Polk SAS, but also see winter report.

Merlin — Reported from 18 north and 14 south counties. Early north (away from known breeding range) 8/13 Traverse CRM. Seasonal total at H.R.N.R. (253) below the average of 321 (based on data since 1991). Early south (away from Twin Cities nests, see summer report) 8/28 Sherburne PLJ. Observed capturing a Least Sandpiper 9/11 Lincoln RBJ.

Gyrfalcon — Dark morph documented 10/27 Cook (Grand Portage) †RPR *et al.*, possibly seen again 10/31 Cook (Grand Marais) JCG.

Peregrine Falcon — Reported from 5 north and 14 south counties. Early north (away from known nesting locations) 8/4 Roseau (adult) PHS, 9/7 Mahnomen JJS, also see Table 1. Early south (away from Twin Cities area) 8/10 Lac Qui Parle (Big Stone N.W.R.) KRE *et al.*, 8/18 Nicollet MJF. Late north 10/26 Wilkin PHS, 11/3 Lake JWL, but also see winter report.

Prairie Falcon — Singles were carefully identified 8/22 Roseau (Roseau lakebed) KJB, 10/19 Polk (Tilden Junction) PHS.

Gray Partridge — Only north reports: 10/13 Clay (7) PHS, 10/27 Otter Tail (22) SPM. Seen in 10 south counties, including 9/3 Winona (5 near Stockton) DBz. Noteworthy counts 8/19 Sibley (adult with 12 young) RBJ, 11/13 Cottonwood (20 south of Bingham L.) LWF. Also observed in Big Stone, Freeborn, Jackson, Lac Qui Parle, Pipestone, Redwood, Renville.

Ring-necked Pheasant — Observed in 35 counties as far north as Polk (10/10, CRM) and Wadena, plus probable escapees 9/27 Lake (6) JWL. High count 11/19 Pipestone (52) RBJ.

Ruffed Grouse — Observed in 14 north and 4 south counties within usual range.

Spruce Grouse — Only reports from Lake of the Woods (near Norris Camp) GMM.

Sharp-tailed Grouse — All reports: Aitkin, Kittson, Marshall, Pine (max. 6, JMP).

Greater Prairie-Chicken — All reports within usual range: Clay (max. 50, RGj), Polk, Red Lake, Wilkin (max. 136, SPM).

Wild Turkey — Reported from Clay (max. 17), Otter Tail (3), Pine (max. 4), Todd, and Traverse in the north, plus 27 south counties. Record-high count 11/22 Olmsted (**180** near Rochester) DPS.

Northern Bobwhite — Only reports: presumed escapees in two urban Hennepin locations.

Yellow Rail — Only report: one seen skulking in grass surrounding a small pond **10/22 Cook** (Grand Marais, record-late north date) AXH, PHS.

Virginia Rail — Reported from six north and nine south counties. Late north 9/1 Kittson m.obs. Late south (median 10/6) 9/17 Waseca JEZ, **11/19–21** Hennepin

(Bass Ponds) SLC, BBB, but also see winter report.

Sora — Reported from 11 north and 15 south counties. Late north 10/16 Lake JWL, 10/17 Aitkin PEJ. Late south 10/13 Hennepin TAT, only October report south.

Common Moorhen — No reports.

American Coot — Reported from 22 north and 36 south counties. High counts 9/28 Otter Tail (3500) DPS, 10/20 Meeker (2000+) RBJ.

Sandhill Crane — Observed in 18 north and 9 south counties. No significant peak counts. Total 114 at H.R.N.R., Duluth (FJN, DSC) between 9/10 and 9/29. Unusual reports 9/25 Lake (3) RBJ, 10/6–11 Lake (2) JWL, m.obs. Late north 11/11 Pine (250) BAK, only November report. Late south 10/27 Benton HHD.

Black-bellied Plover — Observed in six north and nine south counties in all regions except the North-central. Early north 8/4–9 Roseau (9–12) PHS, JMJ, 8/7 Traverse (1) KJB, PCC. Early south 8/1 (1), 8/5 (9) Jackson (Heron L.) KJB. Late north 10/13 Traverse (2) PHS, 10/20 Lake (2) JWL, PHS. Late south 11/11 Brown (3) BSm, **11/15–19** Dakota ADS. Three reports of 12 birds; all other counts single digits.

American Golden-Plover — Reported from all regions except the North-central. Early north 8/11 Aitkin WEN, but see summer report. Early south 8/4 Anoka KJB. First juvenile 9/6 Lincoln KJB. High counts 9/18 Traverse (163 at Mud L.) KJB, 10/13 Traverse (116 at Mud L.) PHS. Late north 10/27 Wilkin SPM. Late south 11/2 (6), **11/13–19** (max. 4 at Sleepy Eye lagoons) Brown †BSm.

Semipalmated Plover — Reported from 9 north and 12 south counties. Please see summer report for first fall migrants. Record-high count 8/1 Jackson (**219** at Heron L.) KJB. First juvenile 8/12 Jackson KJB (same date as last year). Late north 10/12 Becker PHS. Late south 10/8 Lac Qui Parle BEO.

Piping Plover — All reports: singles 8/1 **Jackson** (South Heron L.) KJB, 8/4 Roseau (near Sprague Creek) PHS, 8/10 Lac Qui Parle (Big Stone N.W.R.) KRE *et al.*, 9/2 Lincoln (Tyler W.M.A.) *fide* RJS.

Killdeer — Reported from 24 north and 36 south counties statewide. High counts 8/1 Jackson (**500** estimated at Heron L.) KJB, 8/6 Dakota (**400+** at Castle Rock sod farms) DJW, JOA, 8/18 Meeker (370 in sections 17/18, Litchfield Twp.) DMF. Late north 10/27 Cook KRE. Please see winter report for late south migrants.

American Avocet — All north reports: 8/4 Roseau (7) PHS, 8/7–13 Traverse (max. 6 at Mud L.) m.obs., 9/11 Traverse (3 at Mud L.) KJB. All south reports: 8/1–19 Jackson (max. 3 at North Heron L.) KJB *et al.*, 8/2 Dakota (male at L. Byllesby) ADS, 8/9 Stearns (juvenile at Albany lagoons) †RPR, 9/12 Lac Qui Parle (5 at Big Stone N.W.R.) KJB, 9/21 Jackson (one at Sandy Point C.P.) KRE *et al.*, 10/1 Lac Qui Parle (one at Big Stone N.W.R.) BEO, 10/5 Jackson (22 at Sandy Point C.P.) RBW.

Greater Yellowlegs — Reported from 19 north and 23 south counties. See summer report for first fall migrants. First juvenile 8/21 Marshall KJB. High counts 8/15 Marshall (**129** at Agassiz N.W.R.) PHS, 10/28 Clay (80) RHO. Lingered later than recent medians north (11/2) and south (11/9). Late north 11/4 Itasca PHS, 11/6 Todd JSK, SDu, 11/8 Lake (2) JWL. Late south 11/11 Houston and Wabasha PEJ, DFN, 11/12 Houston FZL, 11/12–18 Dakota ADS.

Lesser Yellowlegs — Observed in 18 north and 30 south counties. See summer report for first fall migrants. High counts 8/5 (**1452**), 8/15 (1322) Jackson (Heron L.) KJB, 9/11 (729), 9/18 (760) Traverse (Mud L.) KJB. Late north 10/11–12 in three counties, 10/13 Clay PHS. Late south 10/31 Mower RCK, RDK, **11/20–26** (latest date on record) Dakota ADS.

Solitary Sandpiper — Reported from 15 north and 24 south counties. Please see summer report for first fall migrants. High count 8/4 Dakota (5) ADS. First juvenile 8/12 Big Stone KJB. Late north (recent median 10/2) 9/25 St. Louis JWB, 10/7 Cass PHS. Late south (recent median 10/3) 10/20 Blue Earth CRM, **10/25** Martin BRB, **10/27** Houston (4 at Mound Prairie Marsh, latest date on record) †FZL

Willet — First juvenile 8/7 Traverse KJB, PCC. Only other north report: 8/21 Pennington (juvenile) KJB. All south reports were singles: 8/9 Brown BSm, 8/18 Meeker DMF, 8/24 Jackson RMD, RHy.

Spotted Sandpiper — Reported from 22 north and 27 south counties. High count 8/11 Traverse (25 at Mud L.) PHS, FJN. Late north 10/22 Lake JJS, 10/26 Lake (Silver Bay) JWL. Late south 10/7 Hennepin SWe, **11/2** Houston PEJ and Meeker DMF, **11/5** Houston (Wildcat Landing, record-late south) †FZL.

Upland Sandpiper — Reported from nine western counties. High count 8/1 Traverse (15) RBJ. Late north 8/13 Grant CRM. Late south 9/4 Swift RBJ.

Whimbrel — Only report: 8/18 Cook (1) JWL, SLL.

Hudsonian Godwit — Only north report: 8/7 Traverse (10 at Mud L.) KJB, PCC. Only south reports: 8/1, 8/5 (2) Jackson (Heron L.) KJB.

Marbled Godwit — All north reports: 8/4 Roseau (31 near Sprague Creek) PHS, 8/4–11 Grant (max. 31 near Barrett) EJE, DTT, SMT. Late south 8/27 Lac Qui Parle (21) KJB, 8/31 Meeker (2) DMF, **10/2** Lac Qui Parle (2 at Big Stone N.W.R., latest date on record) JEB, RBJ, BEO.

Ruddy Turnstone — Scarce statewide. Only north report: 9/10 St. Louis KJB. All south reports: 8/1–5 Jackson (max. 4) KJB, 8/3 Lac Qui Parle (2) BEO, 8/6 Dakota (1) BBB.

Red Knot — All reports: 8/4 Roseau (3) PHS, 8/28 Dakota (L. Byllesby) ADS, 9/12 Dakota (juvenile at Jirik Sod Farm) CRG.

Sanderling — Early north 8/4 Roseau (1) PHS, also see summer report. Scarce for the second consecutive fall along North Shore of L. Superior, where high count 9/19 St. Louis (30 at Park Point, Duluth) MH. Early south 8/1 Stearns (4 at Paynesville) JPM, RPR, also see summer report. All counts ≤12 in southern regions. Late north 10/11 St. Louis (1) MRN, only October report. Observed in eight south counties, including (late south) 10/21 Winona (2) CBe, JWH.

Semipalmated Sandpiper — Please see summer report for early fall migrants. Record-high counts 8/1 Jackson (**2000+** at North Heron L.) KJB, 8/6 Lac Qui Parle (**2512** at Big Stone N.W.R., nearly all adults) KJB. First juvenile 8/1 Jackson KJB. Apparently departed well before recent medians north (9/30) and south (10/11). Observed in 12 north counties, including (late north) 9/22 Traverse PCC. Seen in 20 south counties; late south 9/28 Lac Qui Parle NSp and Winona PWP.

Least Sandpiper — Reported from 17 north and 22 south counties. See summer report for first fall migrants. First juveniles 8/5 Jackson KJB, 8/7 Traverse PCC. High counts 8/7 Traverse (409 at Mud L.) KJB, PCC, 9/12 Lac Qui Parle (378 at Big Stone N.W.R., mostly juveniles) KJB. Late north 10/12 Becker JMJ *et al.*, 10/13 Clay PHS. Late south 10/5 Winona PWP, 10/8 Lac Qui Parle BEO.

White-rumped Sandpiper — All north reports: 10/22–26 Lake (Beaver Bay lagoons) m.obs., 10/26 Wilkin (called) PHS. Four August reports south lacked details; also reported 9/8 Dakota (no details) SWe. **Note**: Undocumented reports of fall migrant White-rumpeds prior to September are not published.

Baird's Sandpiper — Reported from 8 north and 12 south counties in all regions.

Least Sandpiper, 19 August 2002, Grand Marias, Cook County. Photo by David Cahlander.

See summer report for first fall migrants. First juvenile 8/12 Traverse KJB. High counts 8/4 Roseau (55) PHS, 9/6 (71), 9/12 (93) Lac Qui Parle (Big Stone N.W.R.) KJB, BEO. Late north (median 10/13) 9/18 Traverse KJB. Late south 10/5 Winona (5) PWP, only October report.

Pectoral Sandpiper — Seen in 18 north and 24 south counties. See summer report for first fall migrants. Record-high count 8/1 Jackson (**13,000**+ at North Heron L.) KJB (***The Loon*** 75:58–59). Noteworthy counts 8/4 Roseau (1098 near Sprague Creek) PHS, 8/5 Jackson (3231 at North Heron L.) KJB. First juvenile 8/15 Jackson KJB. Late north 10/26–27 Cook m.obs., 10/28 Clay RHO. Late south 11/7 Olmsted PWP, **11/18** Le Sueur CRM.

Dunlin — Numbers down for the second consecutive fall. Reported from only 16 counties. Early north 8/20 Marshall SAS. Early south 9/7 Carver RMD and Dakota ADS. First juvenile 9/12 Lincoln KJB. High count 10/20 Blue Earth (22) CRM, LBF. Late north 10/27 Cook JWL, 11/2 Lake CRM *et al.* Late south 11/11 Brown BSm, **11/12** Houston (4) FZL, **11/12–13** Dakota ADS.

Stilt Sandpiper — Reported from 11 north and 11 south counties. See summer report for first fall migrants. First juveniles 8/5 Jackson KJB, 8/7 Traverse PCC. Record-high count 9/12 Lac Qui Parle (**1363** at Big Stone N.W.R.) KJB. Noteworthy counts 8/5 Jackson (**897** at North Heron L.) KJB, 9/6 Lac Qui Parle (550 at Big Stone N.W.R.) KJB, BEO. Late north 10/12 Becker JMJ. Late south 10/8 Lac Qui Parle (2) BEO.

Black-headed Gull (right), 14 October 2002, Spirit Lake, Jackson County. Photo by Peder H. Svingen.

Buff-breasted Sandpiper — Excellent migration for the second consecutive fall, especially at sod farms in Dakota County. Statewide total about 547 individuals in 19 counties (550+ in 12 counties last fall), including 8/7 **Martin** (near Truman) JEB, 8/11 **Brown** (Sleepy Eye lagoons) DDM, BJM. Early north 8/4 Roseau (68 near Sprague Creek) PHS, 8/9–10 Roseau (2 at Roseau lakebed) JMJ. Please see summer report for early south migrants. Record-high count 8/11 Dakota (**250** estimated at Wagner Sod Farm) JPM. Late north 9/19, 9/21 St. Louis JWL, TAT. Late south 10/1 Dakota (1) BRL.

RUFF — Male reported 8/7 Dakota (Waterford Twp.) †ADS, †MAO (***The Loon*** 75: 117).

Short-billed Dowitcher — See summer report for first fall migrants. High count 8/4 Roseau (22) PHS. First juveniles 8/7 Dakota TAT and Traverse KJB, PCC. Observed in six north counties; late north 9/2 Marshall JMJ. Seen in nine south counties; late south 9/12 Lac Qui Parle and Lincoln KJB.

Long-billed Dowitcher — Reported from 19 counties in all regions except the North-central. Early north 8/14 Todd JSK, SDu, 9/3 St. Louis (juvenile) KJB. Early south 8/5 Jackson (17) KJB, but see summer report. High count 9/15 Marshall (54 at Agassiz N.W.R.) PHS. Late north 10/19 Norman and Polk PHS. Late south 10/20 Blue Earth CRM, LBF, 10/22 Olmsted PWP.

dowitcher, sp? — Reported 8/4 Roseau (9) PHS, 8/1 (25), 8/15 (22) Jackson KJB.

Wilson's Snipe — Seen in 19 north and 21 south counties. High counts 9/1 Stearns (100) KJB, 10/12 Becker (74) PHS. Late north 11/6 Todd JSK, SDu, 11/8 Lake JWL, but also see winter report.

American Woodcock — Observed in only 10 counties. Late north 10/28 Cook RBJ, early November Lake of the Woods *fide* JMJ. All south reports: 10/18 Hennepin TAT, (no date) Washington.

Wilson's Phalarope — Statewide total 620+ individuals in 9 north and 11 south counties, mostly in western regions. Only eastern reports: Dakota, Hennepin, and Olmsted. High counts 8/15 Jackson (184 at North Heron L.) KJB, 8/22 Roseau (233 at Roseau lagoons) KJB. Late north 9/11, 9/18 Traverse KJB. Late south 9/12 Lac Qui Parle KJB.

Red-necked Phalarope — Total of 730+ individuals reported from 10 north and 10 south counties. Early north 8/4 Kittson and Roseau PHS. Early south 8/1 Stearns (Paynesville) JPM, RPR, but see summer report. Record-high count 8/30 Pennington (**220** at Thief River Falls lagoons) CRM *et al.* Noteworthy concentrations 9/5 Douglas (about 100 at Osakis lagoons) BWF, 9/6 Lac Qui Parle (70 at Salt L.) KJB, 9/18 Traverse (60 at Mud L.) KJB. Late north 9/27 **St. Louis** (40th Ave. West, Duluth) MH, KRE, PHS, **11/18 St. Louis** (Stoney Pt., latest date on record) †MH,

†KRE. Late south 10/1 Rice TFB, 10/12 Jackson (8) RMD, RHy.

Parasitic Jaeger — Scarce. One or two light-morph adults reported at or near the Superior Entry, 9/21–28 St. Louis m.obs.

Franklin's Gull — Reported from 11 north and 28 south counties, none in the Northeast and only Olmsted (9/19, PWP) in Southeast. High counts 8/1 Jackson (10,000 at North Heron L.) KBJ, 9/11 Stearns (2200) RPR. Late north 10/28 Clay RHO, only October report in north. Late south 11/11 Kandiyohi CRM, 11/18 Nobles RBJ, but also see winter report.

Little Gull — Second county record 10/7 Itasca (juvenile at Haubrich's Bay, Lake Winnibigoshish) †PHS.

BLACK-HEADED GULL — Adult in basic plumage 9/20–10/26 Jackson (north shore of Spirit L.) †KRE *et al.*, ph. †PEB, ph. †PHS. Fifth consecutive fall along the Iowa/Minnesota border.

Bonaparte's Gull — Reported from 16 north and 13 south counties, none in the Southeast. Early north (but see summer report) 8/3 Lake of the Woods (2 adults) PHS, 8/4 Lake (juvenile) JCG and Roseau (juvenile) PHS. Early south 8/9 Stevens HHD, 8/12 Stearns STW. High counts at Lakes Winnibigoshish (1337 on 10/7) and Mille Lacs (519 on 11/2) down from last five years PHS. Late north 11/18 (median 11/21) Mille Lacs L. PHS. Late south (median 11/22) 11/11 Kandiyohi CRM.

Ring-billed Gull — Many seen in 74 counties statewide.

Herring Gull — Reported from 11 north and 13 south counties, mostly in eastern and central regions. Early south 8/24 Dakota (3) ADS, TAT.

Thayer's Gull — Scarce along the North Shore of L. Superior. Early north 10/14 Lake (adult) MH, 10/17 Cook (adult) PHS, 10/22 Cook (first-winter) AXH, PHS. Adults early south 10/11 Hennepin (L. Calhoun) PEB, 10/25 Dakota (Burnsville) ADS, TAT; first immatures 11/2 Hennepin (2) PEB. High count 11/29 Dakota (3) PEB. No south reports away from the Twin Cities.

Iceland Gull — First-winter reported 11/27+ Dakota (Black Dog L.) †ADS, †TAT *et al.*

Lesser Black-backed Gull — All reports: 9/20 Dakota (adult) KJB, 10/4+ Hennepin (adult at L. Calhoun) †PEB, followed by many reports of presumably the same adult in Dakota County throughout November.

Glaucous Gull — Similar to other "white-winged gull" species, arrived late and relatively scarce. All reports: 11/17 Cook (2 first-winters) PCC, PHS, 11/28–29+ Dakota (adult at Black Dog L.) RMD *et al.*

Great Black-backed Gull — No reports.

Caspian Tern — Reported from 4 north and 12 south counties. No reports from West-central region and only seen in Olmsted (9/10, PWP) in the Southeast. Late north 9/21 St. Louis NAJ, TAT. Late south 10/1 Dakota ADS, 10/2 Hennepin (23) SWe.

Common Tern — Scarce. Reported from six north counties. Late north 10/11 St. Louis MRN, 10/23 Mille Lacs (Malone Island Bridge, Mille Lacs L.) ph. †PHS. Only south report: 9/2 Rice FVS.

Forster's Tern — Reported from 15 north and 14 south counties in all regions except the Southeast. Departed within two days of recent medians north (10/10) and south (9/27). Late north 10/11 Itasca BRN, only October report. Late south 9/29 Hennepin SLC.

***Sterna*, sp?** — Unidentified terns 9/12 **Lake** (2) KRE.

Black Tern — Reported from 14 north

Common Tern, 23 October 2002, Malone Island Bridge, Mille Lacs Lake, Mille Lacs County. Photo by Peder H. Svingen.

and 22 south counties, none in Northeast or Southeast regions. High count 8/21–30 Pennington (400–500 at Thief River Falls lagoons) KJB, m.obs. Late north 9/5 Polk EEF, 9/8 Cass DRu. Late south 9/9 Renville CRM, 9/11 Lincoln RBJ.

Rock Dove — Reported statewide.

BAND-TAILED PIGEON — Ninth state record 11/20+ **Dakota** (Ravenna Twp.) CHT, †TEB, †PEB, †PHS, †TAT, ph. DAC, m.obs.

EURASIAN COLLARED-DOVE — Still present 8/24, 9/14 Blue Earth (Amboy) and through 9/25 Houston (Caledonia) m.obs. Previously documented at these locations in June and mid-May respectively. Also see undocumented reports.

Mourning Dove — Reported throughout the state. High count 9/2 Winona (138 at Lewiston) DBz.

Black-billed Cuckoo — Seen in 7 north and 11 south counties statewide. Late north 9/22 Marshall JMJ, 9/23 Lake RBJ. Late south 9/20 Redwood HHD, 9/22 Rice TFB.

Yellow-billed Cuckoo — No reports in the north. Seen in seven south counties, none in the Southwest. Late south 9/8 Dakota SWe, 10/2 Freeborn AEB and Hennepin CRG.

Eastern Screech-Owl — Only north report: 8/12 Clay (Moorhead) RHO. Gray-morph 8/25 Hennepin (Cedar L.) SLC. Also reported from Carver, Freeborn, Houston, Nicollet, Redwood.

Great Horned Owl — Reported from 16 north and 15 south counties statewide.

Snowy Owl — All north reports: (no date) Cook *fide* DRB, 11/20 Otter Tail EJE, 11/24–30 St. Louis (Morgan Park) JWB *et al*. Only south report: (no date) Lac Qui Parle FAE.

Northern Hawk Owl — No reports.

Barred Owl — Observed in 11 north and 15 south counties within usual range. No reports from the Southwest, and only Otter Tail in West-central, Becker in Northwest.

Great Gray Owl — Reported in November from Aitkin (near Hill City), Becker (Tamarac N.W.R.), and St. Louis (3 locations).

Long-eared Owl — Fourteen banded at H.R.N.R., Duluth DLE *et al*. Only south report: 10/2 Ramsey (3) AXH.

Short-eared Owl — All north reports: Marshall, Otter Tail, Polk, St. Louis (5 birds between 9/28 and 11/14), Wilkin. Only south reports: 10/12 Rice JPM, 11/9 Meeker DMF.

Boreal Owl — No reports.

Northern Saw-whet Owl — Total of 762 banded at H.R.N.R., Duluth (641 last fall) DLE *et al*. Only other north report: 11/29 Otter Tail GO. All south reports: Chisago, Hennepin, Ramsey, Rice, Winona.

Common Nighthawk — Reported from 21 north and 22 south counties. High count 8/24 St. Louis (4940 between 5:30 and 7:50 P.M. at Lakewood Pumping Station) KRE *et al*. Late north (median 9/24) 9/27 Otter Tail DTT, SMT. Late south 10/5 Jackson MJC, 10/14 Dakota ADS.

Whip-poor-will — No north reports. All south reports: 8/10 Sherburne JJS, 9/11 Sibley RWS, 9/18 Ramsey AXH.

Chimney Swift — Observed in 17 north and 24 south counties. Late north (median 9/15) 9/14 Aitkin WEN. Late south 10/5 (SLC), 10/12 (TAT), **10/27** (CRM) Hennepin (ties second latest date).

Ruby-throated Hummingbird — Seen in 22 north and 26 south counties. Late north 9/20–23 in four counties, then 9/27 Beltrami and Lake m.obs. Late south 10/3 Nicollet LWF, 10/7, 10/13 Rice FVS.

Belted Kingfisher — Reported from 56 counties statewide.

Red-headed Woodpecker — Reported from 12 north counties, including five locations in southern St. Louis. Late north 10/23 Todd SPM, 11/8 Clay RHO. Observed in 26 south counties, including Dakota (6 reports) and Renville (6 locations). High counts 9/15 Houston (12) FZL, plus 20 attempting to overwinter in Anoka JLH.

Red-bellied Woodpecker — Observed in 45 counties as far north as Pennington and Polk in the Northwest region, Beltrami in North-central, and St. Louis (2 locations) in Northeast.

Yellow-bellied Sapsucker — Reported from 18 north and 16 south counties. Late north 10/5 Lake JWL, only October report. Six October reports south, including (late south) 10/9 Hennepin DWK. Also see winter report.

Downy Woodpecker — Statewide.

Hairy Woodpecker — Statewide.

Three-toed Woodpecker — Only report: 10/24 St. Louis (H.R.N.R., Duluth) *fide* FJN.

Black-backed Woodpecker — Numbers up along the North Shore of L. Superior, especially at H.R.N.R. where as many as 25 were seen during the season (peak 4 on 10/24, FJN, DSC). High count 10/26 Cook (7) m.obs. Also reported from Lake of the Woods GMM.

Northern Flicker — Seen in 63 counties statewide. "Red-shafted" Flicker 9/29–10/2 Clay RHO.

Pileated Woodpecker — Reported from 43 counties in all regions, but only Yellow Medicine in the Southwest.

Olive-sided Flycatcher — Reported from all regions except the Southwest. Early south 8/11 Dakota TAT, then daily beginning 8/19 Brown CRM, RBJ. Late north 9/1 Clay RHO and Pennington CRM, SWe. Late south 9/10 Dakota JPM, 9/20 Ramsey TAT.

Eastern Wood-Pewee — Found in all regions. Late north 9/10 Lake JWL, 9/21 Carlton LAW. Frequent south reports through 9/23 Hennepin SLC, then only 10/6 Hennepin TAT.

Yellow-bellied Flycatcher — Reported from five north and five south counties; late dates each within one day of recent medians. Late north 8/24 Mille Lacs RBJ, 8/30 Polk CRM, SWe. Late south 9/8 Anoka KJB and Hennepin SLC, 9/16 Ramsey REH.

Acadian Flycatcher — Only report: 8/14 Anoka (Carlos Avery W.M.A.) KJB.

Alder Flycatcher — All north reports from the Northeast, where last reported 9/11 St. Louis (2) KRE. Only south report 8/11 Anoka KJB. **Note**: During spring and fall migration, undocumented records of silent *Empidonax* flycatchers are not published in this report. Please be sure to indicate singing or calling birds on the Seasonal Report form.

Willow Flycatcher — Two reports with details: 8/9 Grant HHD, 9/4 Anoka KJB.

Least Flycatcher — Late north 8/18 Lake JWL, then none until 9/26 Lake JWL. Late south 8/24 Dakota ADS, **11/5** (record-late, Mound Springs Park, copious details provided) Hennepin †SLC.

***Empidonax*, sp?** — One unidentified *Empidonax* flycatcher **10/7** Beltrami DPJ was late regardless of its identity.

Loggerhead Shrike, 5 August 2002, Dakota County. Photo by David Cahlander.

Eastern Phoebe — Found throughout the state. Late north 10/14 Mille Lacs CRM, 10/18 Cook JWL. Late south 11/2 Cottonwood BRB and Mower RCK, RDK.

Great Crested Flycatcher — Reported from every region. Many north reports through 9/3, then only 9/7 Mahnomen JJS and **10/25–27** (ties third latest date north) Cook m.obs. Late south 9/11 Pipestone RBJ, 9/12 Dakota ADS, 9/17 Hennepin SLC, five days prior to recent median.

Western Kingbird — Most were in the Northwest and West-central regions. All reports after 8/13: 8/24 Pine †OWB, 9/1 Kittson CRM, SWe and Pennington SWe, 9/30 Hennepin TPB.

Eastern Kingbird — Seen in all regions. Late north 9/5 in three counties, then 9/7 Aitkin WEN, Wadena PJB (median 9/18). Late south 9/14 Isanti REH, 9/21 Nicollet LWF and Scott SWe.

Loggerhead Shrike — All reports: 8/1 Otter Tail (2 in Western Twp.) RBJ, 8/4–5 Yellow Medicine (Florida Twp.) DDM, BJM, and as late as 8/10 Clay (max. 4 at Felton Prairie), Dakota (up to 7 in Vermillion Twp.) and Kandiyohi (2 at Regal Meadows Nature Conservancy Area) m.obs.

Northern Shrike — Early north 10/5 Polk JMJ, 10/19 Aitkin WEN and Norman PHS. Found in five north counties before the first report from the heavily birded Northeast (10/25 Cook REH). Early south 10/16 Sherburne PLJ, 10/27 Benton HHD.

Bell's Vireo — No reports.

Yellow-throated Vireo — Late north 9/8 Hubbard JJS, 9/13 St. Louis MJF, 9/15 Carlton LAW. Late south (recent median 9/26) 9/30 Chisago DCZ, 10/1 Goodhue BRL and Hennepin TAT, 10/6–7 Hennepin ChM, SLC.

Blue-headed Vireo — Early south **8/2** Yellow Medicine JEB (ties second earliest date south), then none until 8/28 Nicollet KJB, over a week later than the recent median (8/20). Late north 9/30 Becker DFN and St. Louis JJS, 10/1 Carlton JJS, 10/11 St. Louis JWL. Late south 10/12 Hennepin PEB, **11/4** (second latest south date) Hennepin †SLC.

Warbling Vireo — High count 9/3 Chippewa (**14**) RBJ. Late north 9/1–2 Kittson, Polk, and Marshall, then only 9/7 Mahnomen JJS. Late south 9/15 Hennepin SLC, 9/21 Sherburne REH, **10/5** (third latest south date) Hennepin PEB.

Philadelphia Vireo — Early north (away from known breeding locations) 8/30 Red Lake CRM. Early south 8/25 McLeod RWS, 8/31 Hennepin SLC. Peak migration 9/7 Washington (4) KJB, 9/12 Hennepin (3) CRG. Three north reports after 9/14: 9/24 Pine JMP, 9/25 Lake JWL, 9/27 St. Louis CRM. Late south 9/27 Freeborn AEB, 9/30 Chisago DCZ and Hennepin SLC.

Red-eyed Vireo — Found in all regions. Only north reports after 9/15 were from the Northeast: 9/21 Cook RBJ, 9/22 Carlton LAW, 9/27 St. Louis CRM, 9/27–28 Lake DPJ, CRM, JWL. Late south 9/23 Ramsey REH, 10/5 Hennepin DWK, 10/7 Hennepin SLC, TAT.

Gray Jay — Reported from Lake of the Woods, Koochiching, Beltrami, and Aitkin in the North-central, and throughout the Northeast.

Blue Jay — Found in all regions. High count 10/2 St. Louis (3000 at Stoney Pt.) KWR, MCA.

Black-billed Magpie — Reported from nine Northwest and six North-central counties, plus St. Louis. Largest concentration in Aitkin (14).

American Crow — Reported throughout the state.

Common Raven — Observed throughout usual range in northern regions, plus Pine, Kanabec, Chisago and Washington (10/17, DPS).

Horned Lark — Found in all regions throughout the state. Late north 10/26 Cook PLJ, 11/3 St. Louis JWL. See winter report for additional migrants and overwintering south.

Purple Martin — High counts 8/23 Stearns (50) DCT, MAJ, 8/28 Jackson (92) KJB. Late north 8/23 Douglas REH, 8/30 Wadena PJB, 9/1 Kittson CRM, SWe (median 9/9). Late south 9/3 Rice TFB, 9/4 Dakota ADS, 10/3 Washington PEB (median 9/14).

Tree Swallow — High count 8/25 Clay (3800 in Skree Twp.) PHS. Late north 9/30 Otter Tail DPS, 10/5 Aitkin WEN. Only south reports after recent median (10/18): 10/19 Hennepin PEB and Winona PWP, 10/29 Hennepin OLJ.

Northern Rough-winged Swallow — Six north reports (cf. one in 2001); late

north 8/31 Marshall CRM, 9/1 Polk SWe, almost two weeks prior to median departure (9/14). Four September reports south, then only 10/4 Dakota ADS, **11/6** (latest date on record) Scott †PEJ.

Bank Swallow — Late north all in the Northwest: 9/1 Kittson CRM, SWe, 9/5 Polk EEF, 9/7 Mahnomen JJS. Late south 9/10 Carver RMD, 9/12 Nobles RBJ and Stearns STW.

Cliff Swallow — Late north 9/1 Kittson CRM, SWe, 9/7 Mahnomen JJS, 9/15 Wadena PJB. Late south 9/22 Carver RMD, 10/5 Dakota RA, 10/7 Dakota ADS.

Barn Swallow — Late north 9/19 Polk EEF, 9/21 Otter Tail DTT, SMT and Red Lake JMJ (18 days prior to median 10/9). Five south reports after median departure (10/16): 10/17 Wabasha LJU, 10/19 Hennepin PEB and Swift RBJ, 10/22 Murray CRM, 11/3 Scott PEJ.

Black-capped Chickadee — Reported throughout the state.

Boreal Chickadee — Observed in Aitkin, Lake and St. Louis.

Tufted Titmouse — No reports.

Red-breasted Nuthatch — Most north reports were from the North-central and Northeast regions. Scattered south reports during the season, with a few in early August from Freeborn, Goodhue and Dakota.

White-breasted Nuthatch — Statewide.

Brown Creeper — Reported from all regions; south reports beginning 9/15, but see summer report.

ROCK WREN — One seen 10/4–9 Hennepin (Bloomington) †JC. Fall records of this species have occurred about once a decade: in 1962, 1966, 1974, 1986, and 1991.

Carolina Wren — A remarkable seven birds were found this season. Two first county records in the Northeast: 8/19 **Lake** (Two Harbors) †JWL, 8/28–29 **Carlton** (Cloquet) DP, JWL. All south reports: through 8/3 Fillmore (Canton) NBO, JJS; three in Hennepin — 8/11–19 Old Cedar Ave BBB, *et al.*, 8/24 Cedar Lake CBr, 10/26, 11/12 Medina MHL; and another unusual county occurrence 10/30 **Chisago** (Chisago City) RY.

House Wren — Late north 9/21 Otter Tail DTT, SMT, 10/1 Pine JMP. Late south 10/7 Ramsey SWe and Rice RBJ, 10/10 Hennepin TAT, 10/27 Hennepin SLC.

Winter Wren — Only north reports from Aitkin, Lake and St. Louis; last reported 10/19 St. Louis JWL. Early south **8/20** (ties earliest south date) McLeod RWS, then none until 9/15 Anoka KJB, Hennepin SLC (median 9/7). See winter report for late south migrants and overwintering. Only west reports from Jackson in early October

Sedge Wren — Late north 9/27 Pine JMP, then none until 10/23 Aitkin PEJ, 10/27 Cook JWL. Late south 10/7 Hennepin SLC, 11/3 Hennepin TAT, **11/8** Hennepin †SLC (same bird?).

Marsh Wren — Record high count 9/12 Traverse (**39** at Mud L.) KJB. Late north 9/26 Lake (2) JWL, KRE, 9/28 Pine JMP, 10/20 Pennington JMJ. Late south 10/19 Pope RBJ, then three late reports from Hennepin: 10/20 SWe, 11/4 TAT, 11/26 †SLC, but also see winter report.

Golden-crowned Kinglet — Early south 9/15 Anoka JLH, 9/21 Scott SWe, then many reports beginning 9/26. All November reports north: 11/2 Lake JWL, 11/9 Cass MRN, 11/23 Aitkin WEN. Also see winter report.

Ruby-crowned Kinglet — Early south 9/4 Hennepin SLC, 9/8 Anoka KJB. Late north 11/2 Cass MRN and Lake JWL, 11/3 Cook CRM. Reported from five south counties through 11/15, then only 11/26

Hennepin †SLC, but also see winter report.

Blue-gray Gnatcatcher — August reports north from Cass, Otter Tail and Red Lake, then only 9/7 Mahnomen JJS, 9/10 Becker BRK. Late south 9/19 Dakota TAT and Swift RBJ. This is the first fall since 1998 without a report of this species from the North Shore.

Eastern Bluebird — Peak migration 10/26 along the North Shore of L. Superior (100+) m.obs. Local concentration 10/16 Goodhue (50) FVS. All November reports north: 11/2 St. Louis TAT and Lake JWL, 11/8 Carlton DFN, but also see winter report.

Mountain Bluebird — Three reports: 10/18 Scott (male at Louisville Swamp) †RMD, 10/20 St. Louis (female) †KRE, 11/3 Lake (female at Castle Danger) PHS.

Townsend's Solitaire — All reports: 10/7 Sibley (~7 miles south of Green Isle) DDM, 10/20+ Lake (Two Harbors) JWL, 10/16, 10/28 St. Louis (migrants at H.R.N.R., Duluth) FJN, 11/3 Lake (near Isabella) JWL, 11/8 Lake (Two Harbors, probably same bird as in late October) JWL, 11/16 Winona (Whitewater S.P.) RMD, RHy.

Veery — Late north 8/31 Marshall CRM, SWe, 9/14 Carlton LAW (median 9/13). Late south 9/15 Anoka KJB, 10/2 Freeborn AEB (median 9/16).

Gray-cheeked Thrush — Only north reports: 9/3 St. Louis ALE, 9/27 St. Louis CRM, 10/1 Pine RBJ, 10/22 Cook JJS. South reports: 9/9 Hennepin SLC, 9/14 Isanti REH, 9/15 Anoka (8 nocturnal migrants) KJB, 10/2 Freeborn AEB, **10/20** (record-late south, no details) Washington DPS.

Swainson's Thrush — Early south 8/2 Anoka KJB, 8/13 Ramsey TAT. Forty nocturnal migrants counted 9/15 Anoka KJB. All October reports north were from the Northeast, including (late north) 10/17 Cook and Lake PHS, 10/18 Carlton LAW.

Northern Mockingbird, 5 July 2002, Empire, Dakota County. Photo by David Cahlander.

Late south 10/2 Freeborn AEB, 10/14 Pipestone RBJ.

Hermit Thrush — Early south 9/17 Anoka KJB, 9/20 Mower RCK, RDK. Late north 10/24 Carlton LAW, Lake JWL, 10/25 Cook REH. Two November reports south: 11/25 Hennepin †SLC, 11/26 Olmsted OWB, but also see winter report.

Wood Thrush — All north reports: 8/7 Kanabec BLA, 9/7 Carlton LAW, **10/6** Wadena PJB, **10/13** Cass MRN. These last two reports represent the third and second latest north dates on record and exceed the median late date (8/28) by over a month. Late south 10/2 Freeborn AEB (in addition to this species, AEB found the above four *Catharus* thrushes on this same date in Freeborn), 10/6 Hennepin TAT.

American Robin — Reported throughout the state. High count 10/2 St. Louis (6000 at Stoney Point) KWR, MCA.

Varied Thrush — Only report: 11/16 Crow Wing (Emily) †*fide* Cornell's Project

Feederwatch.

Gray Catbird — Late north 10/5 Aitkin WEN, 10/26 Cook REH, 11/8 Lake (2) JWL. Late south 10/7 Stearns MRN, then only from Hennepin: 10/27 TAT, 11/9–10 SLC (same bird?), but also see winter report.

Northern Mockingbird — All reports: through 8/11 Dakota (***The Loon*** 75:116) JPM, TAT, 8/10 Olmsted (Chester Woods C.P.) OWB, 10/6 St. Louis (Park Point) *fide* DRB, 10/8 Ramsey (Falcon Heights) MEO, 11/8 Hennepin (Mounds Spring Park) TAT, 11/14 Cook (Croftville) PB.

Brown Thrasher — Late north 9/23 Kanabec BLA, 9/28 Lake CRM, 10/1 Carlton JJS, but also see winter report. Late south 10/12 Dakota ADS, 10/21 Hennepin SLC, 10/24 Hennepin TAT (same bird?), but also see winter report.

European Starling — Found statewide.

American Pipit — Early north 9/2 St. Louis PHS; none away from the Northeast until 9/15 Todd JSK. Early south 9/12 Lac Qui Parle KJB, 9/20 Hennepin OLJ. High count 10/17 Cottonwood (198) PEB. Late north 11/3 Lake JWL, 11/4 Itasca PHS. Late south 10/27 Benton HHD, 11/2 Lac Qui Parle BRL.

Bohemian Waxwing — Scarce. Highest number reported only 20 (11/13 St. Louis NAJ). Early north 9/24 Hubbard HJF, JLF, then none until 10/15 Lake JWL (median 10/5). One south report: 10/18 Scott †RMD.

Cedar Waxwing — Reported statewide.

Blue-winged Warbler — Second county record 9/11 **St. Louis** (banded at Hawk Ridge) DAG. Reported south in September only from Washington and Hennepin; late south 9/14 Hennepin TAT.

Golden-winged Warbler — Early south 8/18 Hennepin ChM. Late north 9/7 Beltrami DPJ and Mahnomen JJS, 9/22 Cook RBJ. Late south 9/16 Freeborn AEB, 9/16–17 Hennepin SLC, ChM. One report of "Lawrence's Warbler" 9/1 Fillmore NBO.

Tennessee Warbler — Early south 8/2 Anoka KJB, 8/5 Hennepin SLC. Late north 10/9 Beltrami DPJ, 10/14 Crow Wing CRM, 10/16 Lake JWL. Latest south reports all from Hennepin: 10/9 TAT, 10/12 PEB, 10/13 SLC, 10/20 SWe, **11/4** †SLC.

Orange-crowned Warbler — Early north (only documented report) 9/10 Lake †KRE. Early south 9/11 Hennepin SLC. Late north 10/22 Cook and Lake PHS, 10/26 St. Louis JWL. Late south 11/5 Hennepin SLC, 11/16 Dakota CRM. Two north and three south reports in August were excluded (see undocumented reports). This species is normally a late fall migrant through Minnesota. Please provide details for reports before early September.

Nashville Warbler — Early south 8/17 Hennepin ChM, SLC, 8/19 Freeborn AEB. North reports only through 9/24 away from the Northeast, where last seen 10/31 Cook JCG, 11/3 St. Louis *fide* DRB. Late south **11/9** Hennepin †SLC, **11/26** Ramsey †NSp, exceeded only by one at St. Paul, 20–29 November 1941 (*The Flicker* 14:14–15).

Northern Parula — High count 8/26 Cook (**24** at C. R. Magney S.P.) RBJ. Early south 8/24 Dakota JPM, ADS, Hennepin SLC. Late north 9/22 Cook RBJ and Carlton LAW, 9/27 St. Louis CRM, JWL. There were many south reports near the Twin Cities 9/13–17, then only 10/5 Anoka BRL.

Yellow Warbler — Late north 9/27 St. Louis CRM, 10/2 Lake JWL, **10/16** (ties third latest date north) Lake JWL. Late south 9/15 Anoka KJB, 9/20 Big Stone N.W.R. BEO, 10/1 Ramsey REH.

Chestnut-sided Warbler — Late north 9/25 Lake JWL, 9/27 St. Louis CRM. Late south 10/2 Rice TFB, 10/3 Hennepin ChM.

Magnolia Warbler — Early south 8/19 Hennepin ChM, SLC, 8/23 Anoka KJB.

Late north 9/28 Carlton LAW, St. Louis JWL. Late south 10/2 Rice TFB, 10/9 Hennepin DWK, **10/28** (ties third latest date in state) Hennepin TAT.

Cape May Warbler — Early south 8/26 Anoka KJB, 9/16 Freeborn AEB. North reports through end of September, then only 10/18 Cook and Lake KRE, 10/20 Lake JWL (same as median). Late south 9/29 Carver RMD, 10/13 Dakota TAT.

Black-throated Blue Warbler — Four north reports: 8/15 Cook (3 at Oberg Mtn.) DCZ, 9/26 St. Louis (same as 9/27?) *fide* DRB, 9/27 St. Louis (H.R.N.R.) FJN, DSC, 10/6 Carlton LAW. No fewer than eight individuals reported from five different Hennepin locations between 9/10 and 10/9; all other south reports: 9/14 Rice FVS, 9/19 Ramsey (Crosby Farm) TAT, 10/5 Anoka (Fridley) BRL.

Yellow-rumped Warbler — Most interesting was the partial albino discovered by DPJ in Beltrami County on 10/16. His description reads "bright yellow on rump and sides of breast, otherwise white (immaculately so) except for some black on outer wings, a bit in the tail and about the crown. A strikingly beautiful bird." South summer resident 8/2 Anoka KJB, then first migrants 8/16 Mower RCK, RDK, 8/23 Lac Qui Parle FAE. Late north 11/4 Cass PHS, 11/8 Lake JWL, 11/14 Cook DRB. Please see winter report for late south migrants.

Black-throated Green Warbler — Early south 8/23 Benton HHD, 8/30 Anoka KJB, 8/31 Freeborn AEB. Late north 9/27 Lake DPJ, 9/29 Pine JMP. Late south 10/1 Goodhue BRL, **11/29** (prior record-late date 11/4) Benton †HDD.

Blackburnian Warbler — Early south 8/19 Anoka KJB, Freeborn AEB, Hennepin ChM, SLC. Late north 9/15 Wadena PJB, 9/24 Lake RBJ. All south reports after August from Hennepin (4 observations), ending with 10/6 ChM.

Pine Warbler — South summer resident 8/2 Anoka KJB, then early south 8/18 Dakota TAT. Late north 9/8 Hubbard JJS, 9/15 Cass PHS. Late south 9/17 Anoka KJB, 9/20 Carver RMD.

Palm Warbler — Early south much later than recent median (8/25): 9/11 Hennepin DWK, 9/12 Stearns STW. Late north 10/31 Lake JWL, 11/2 Lake KRE (median 10/22). Late south 10/17 Olmsted PWP, 10/30 Hennepin TAT (median 10/18).

Bay-breasted Warbler — Maxima six in Hennepin (9/10, DWK) and Washington (9/7, KJB). Early south 8/23 Anoka KJB, 8/26 McLeod JJS. Late north 9/13 St. Louis MJF, 9/26 Cook DPJ. Late south 9/21 Sherburne REH, 9/29 Hennepin DWK, 10/1 Goodhue BRL.

Blackpoll Warbler — Only two north reports outside of September: 8/22 Lake JWL and 10/25 Cook REH. Aside from singles in Mahnomen and Wadena, all others were from the Northeast. All south reports: 8/25 McLeod RWS, 9/15 Anoka KJB and Hennepin SLC, 10/2 Ramsey REH.

Cerulean Warbler — No reports.

Black-and-white Warbler — High count 8/30 Anoka (21) KJB. No reports from the West-central or Southwest. Late north 10/7 Lake JWL, 10/25 Cook REH, 10/27 Cook KRE, **11/20** Crow Wing (record-late by one week, but no written details) *fide* AXH. Late south 10/19 Houston FZL, 11/3 Hennepin †SLC.

American Redstart — Late north 10/5 Carlton LAW, 10/12 Lake JWL. Late south 10/6 Hennepin SLC, 10/10 Kandiyohi RPR, KRE.

Prothonotary Warbler — No reports.

Worm-eating Warbler — No fall reports since 1992.

Ovenbird — Late north 9/24 Pine JMP, 9/28 Carlton LAW, plus one flew into a garage in Otter Tail in early October (EJE).

Late south 9/30 Hennepin SLC, 10/19 Houston FZL, 10/15 Hennepin TAT.

Northern Waterthrush — Early south 8/9 Anoka KJB and Freeborn AEB, 8/19 Hennepin and Ramsey. Late north 9/21 Carlton RBJ, 9/29 Carlton LAW. Late south 9/11 Rice TFB, then three reports from Hennepin ending with 10/12 TAT.

Louisiana Waterthrush — All reports: 9/7 Washington (Falls Creek S.N.A.) KJB, 9/10 Hennepin (Wood L.) †TAT, †PEB.

Kentucky Warbler — No fall reports since 1987.

Connecticut Warbler — Only north report 9/28 St. Louis CRM. All south reports 9/15 Hennepin ChM, SLC, 9/30 Dakota ADS, 10/1 Ramsey REH, 10/5 Hennepin (Wood L.) †PEB.

Mourning Warbler — Early south 8/16 Anoka KJB, 8/19 Hennepin SLC. Three north reports later than the recent median (9/14), including 9/22 Cook RBJ, 9/26 St. Louis NAJ. Late south 9/17–18 Hennepin ChM, SLC (median south 9/30).

Common Yellowthroat — Late north 10/19 Polk PHS, 10/20 Aitkin SLC, 10/30 Lake JWL. Late south 10/8 Anoka RBJ, 10/12 Hennepin DWK, 11/9 Hennepin †SLC (two weeks later than median south late date 10/26).

Hooded Warbler — Only report: 8/13 Anoka (female at Linwood L.) KJB.

Wilson's Warbler — Early south 8/16–17 Hennepin ChM, SLC, 8/19 Freeborn AEB, Dakota TAT and Rice TFB. High count 8/30 Anoka (13) KJB. Late north 9/7 Clay GEN, 9/14 St. Louis SWe, 9/24 Pine JMP. Late south 9/22 Hennepin SLC, 9/23 Scott DWK.

Canada Warbler — Early south 8/13 Rice TFB, 8/14 Anoka KJB. Late north 9/1 Marshall JMJ, 9/3 Wadena PJB. Late south 9/11 Hennepin PEB, 9/17 Hennepin ChM.

Yellow-breasted Chat — Only report: 9/3 Lac Qui Parle RBJ.

Summer Tanager — Two reports from opposite corners of the state: 11/5–30 Pennington GM *et al.*, †SAS, ph. †PHS (***The Loon*** 75:117–118), 11/16–19 Winona (Lock and Dam #5) RMD, RHy, DBz, JJS.

Scarlet Tanager — Late north 9/10 Becker BRK, 9/22 Cook RBJ (median 9/20). Late south 10/1 Dakota ADS, then three reports from Hennepin, ending with 10/6 SLC (median 10/2).

Western Tanager — Minnesota's third fall record: 8/18 **Cook** (Taconite Harbor) †JWL, †SLL.

Spotted Towhee — Four undocumented reports from the western third of the state. All reports: 10/6 Otter Tail (Fergus Falls) SPM, mid-October Becker (2 at Detroit Lakes) *fide* JMJ, 10/14 **Nobles** (Indian Lake) RBJ.

Eastern Towhee — Two north reports: 8/15 Wadena PJB, 9/30 Pine JMP. Late south 10/17 Houston FZL, 10/29 Rice TFB, but also see winter report. No reports from the western third of the state.

American Tree Sparrow — Arrived later than usual (median north 9/25, median south 9/29). Early north 10/2 St. Louis JJS, 10/5 Otter Tail DTT, SMT, 10/10 Polk CMN. Early south 10/14 Hennepin SLC, 10/15 Pipestone RBJ and Sherburne PLJ.

Chipping Sparrow — Late north 10/29 Clay RHO, 11/3 Lake JWL, 11/6 Kanabec BLA. Late south 10/28 Hennepin SLC, 11/1 Le Sueur RBJ, 11/4 Lac Qui Parle RBJ, but also see winter report.

Clay-colored Sparrow — Late north 9/27 Pine JMP and St. Louis CRM, 10/20 St. Louis JWL (median 10/15). Late south 10/3 Dakota SWe, then several reports in Hennepin until 10/15 OLJ (median 10/10).

Field Sparrow — Only north report 8/10

Clay GEN. Late south 10/22 Murray CRM, 10/26 Hennepin SLC, 10/31 Dakota TAT, but also see winter report.

Vesper Sparrow — Late north 10/8 Polk EEF, 10/10 Polk CMN, 10/12 St. Louis SWe, one week prior to the median north late date (10/19). Late south 10/17 Cottonwood PEB and Hennepin TAT, 10/22 Sibley RBJ, 10/27 Waseca JEZ, identical to median south late date.

Lark Sparrow — All reports: 8/1 Hennepin (2, see summer report) SLC, 8/10 Clay RHO, 8/11 Traverse PHS, 8/25 Clay (Felton Prairie) PHS, **10/14** (second latest date south) Carver/McLeod RMD.

Savannah Sparrow — Late north 10/28 Clay RHO, 11/2 Lake CRM, 11/3 Cook CRM. Late south 10/22 Stearns RPR, 10/25–26 Dakota (same bird?) ADS, TAT.

Grasshopper Sparrow — Reported in August from Roseau, Clay, Kanabec, Swift, Sherburne, and Dakota. Late dates 9/1 Kittson CRM, SWe, 9/29 Dakota SWe.

BAIRD'S SPARROW — Reported in Polk (at The Nature Conservancy's Glacial Ridge Project) through 8/10 *fide* AXH. A photograph of this bird appeared on the cover of the previous issue.

Henslow's Sparrow — Only report: 8/10 Lac Qui Parle (2 at Big Stone N.W.R.) KRE *et al.*

LeConte's Sparrow — North reports consisted of several early to mid-August observations in the Northwest, followed only by 9/22 St. Louis MH, 9/24 Lake RBJ, 9/27 St. Louis KRE and Pine RBJ, 9/28 Aitkin WEN. South reports began 9/11 Hennepin SLC, 9/12 Lac Qui Parle KJB. High count 9/29 Meeker (**30** in one field) DMF. Late south 10/15 Pipestone RBJ, 10/16 Dakota TAT, 10/19 Hennepin (Cedar L.) ChM.

Nelson's Sharp-tailed Sparrow — All north reports: 9/11 Traverse (**6** at Mud L.) KJB, 9/15 St. Louis (Stoney Pt.) JWL, 9/21–22 St. Louis TAT, MH, 9/23 Pine JMP, 10/5 Lake (Beaver Bay lagoons) JWL. All south reports: 9/12 Lac Qui Parle (Big Stone N.W.R.) KJB, 9/26 Hennepin (Old Cedar Ave.) BBB, 9/29 Hennepin (3 at Crow-Hassan Regional Park) †SLC, 9/29 **Meeker** (4 in field with LeConte's Sparrows) DMF, 10/1 Hennepin (Wood L.) TAT, 10/4–7 Rice (third year in a row at River Bend N.C.) TFB, 10/8 Carver (Seminary Fen) RMD.

Fox Sparrow — Early dates about one week later than medians (north 9/20; south 9/18). Early north 9/26 Lake KRE, JWL, 9/27 St. Louis CRM. First report away from Northeast 10/5 Otter Tail SPM. Early south 9/24 Dakota TAT, 9/27 Carver RMD, 9/28 Freeborn AEB. Late north 11/15 Todd JSK, SDu, 11/29 Cook JWL, but also see winter report. Late south 11/19 Hennepin SLC, but also see winter report.

Song Sparrow — Late north 11/10 Wadena PJB, 11/28 Lake JWL, but also see winter report.

Lincoln's Sparrow — Early south 9/8 Hennepin SLC, 9/12 Lac Qui Parle KJB and Stearns STW. High count 9/28 Hennepin (11) PEB. Late north 10/23 Clay RHO, 10/26 Cook PLJ, **11/2** (ties second latest north date) Lake CRM, JWL (median 10/17). Late south 10/17 Cottonwood PEB, 10/18 Olmsted PWP, then several reports from Hennepin culminating with 11/2 DWK, SLC.

Swamp Sparrow — Late north 11/18 St. Louis NAJ, 11/28 Lake JWL, but also see winter report.

White-throated Sparrow — Early south 9/12 Dakota JPM, 9/13 Anoka KJB and Hennepin REH, TAT. High count 10/3 Mower (46) RCK, RDK.

Harris's Sparrow — Found in every region. Early north 9/21 Lake JWL, 9/22 Cook RBJ, 9/23 Beltrami DPJ and St. Louis NAJ. Early south 9/16 Freeborn AEB, 9/

21 Blue Earth MJF. "Hundreds" reported 10/15 Pipestone RBJ. Late north 11/6 St. Louis NAJ, 11/10 Todd JSK, Sdu, but also see winter report. Late south 11/8 Lac Qui Parle FAE, 11/11 Kandiyohi CRM, 11/18 Martin RBJ, but also see winter report.

White-crowned Sparrow — Early north 9/12 Lake KRE, 9/15 St. Louis SWe, JWL. First report from the North-central or Northwest not until 10/5. Early south 9/21 Scott SWe, 9/22 Dakota TAT. Late north 11/2 Lake CRM, 11/8 Lake JWL. Away from the Northeast, last reported north in Cass 10/24 (MRN). Late south 10/31 Hennepin SWe, 11/3 Nicollet LWF, 11/16 Winona PWP, but also see winter report.

Dark-eyed Junco — Early south **8/23** Chisago RBJ, 9/10 Freeborn AEB, 9/15 Anoka KJB. A "Pink-sided Junco" was reported without details. (See *Birding* 35: 132–136 for a recent discussion of identification difficulties.)

Lapland Longspur — Early north 9/10 Lake KRE, JWL, 9/15 St. Louis SWe. Early south 9/29 Hennepin SLC, 10/12 Benton HHD. Late north 11/3 Cook CRM, 11/7 St. Louis ALE, JWL. Last reported south 11/18 Sibley CRM, 11/19 Pipestone RBJ. Also see winter report.

Smith's Longspur — Singles reported along the North Shore of L. Superior 10/2 Lake (Silver Bay) KWR, MCA, 10/22 Cook (Grand Marais Campground) AXH. Only south reports: 10/12 Cottonwood (one at Red Rock Prairie) RMD, 10/13 Cottonwood (2 at Jeffers Petroglyphs) †PHS.

Chestnut-collared Longspur — Only found in Clay, 8/10 RHO and 8/25 (2) PHS, presumably both sightings at Felton Prairie.

Snow Bunting — Early north 10/2 St. Louis JJS, 10/14 St. Louis ALE, 10/16 Aitkin PEJ (median 10/5). Early south 10/20 Freeborn AEB, 10/21 Cottonwood CRM, 10/22 Waseca JEZ (median 10/17). High count 10/27 Beltrami (200+) DPJ. Numbers up in Northeast JCG

Northern Cardinal — Reported throughout the state, with fewest reports from Northwest (Pennington and Becker) and Southwest (Yellow Medicine).

Rose-breasted Grosbeak — Late north 9/20 Kanabec BLA, 9/23 Lake RBJ, 9/29 Todd JSK, SDu (same as median late date). Late south 9/26 Stearns STW, 10/1 Ramsey REH, 10/5–8 Hennepin PEB, SLC, TAT (all same bird?).

Blue Grosbeak — All reports: 8/13 Rock (Blue Mounds S.P.) PLJ, 8/18 Rock (2) RWS.

Indigo Bunting — Late north 9/8 Cass MRN, 9/13 Cook KRE, 9/30 St. Louis JJS (median 9/16). Late south 9/27 Ramsey REH, 10/2 Lac Qui Parle RBJ, and multiple reports from Hennepin ending with 10/12 TAT.

Dickcissel — Only north reports: 8/11 Traverse HHD, KRE, mid-August in Wilkin LBF. Reported south from Lac Qui Parle, Yellow Medicine, Martin, Freeborn, Olmsted, and (late south) 8/19 Brown RBJ, 8/24 Dakota TAT.

Bobolink — Late north 9/21 St. Louis TAT, 9/26 Lake KRE (median 9/16). Late south 8/27 Swift (72) KJB, 9/1 Dakota TAT, 9/12 Rock (**250**+) RBJ (median 9/30).

Red-winged Blackbird — Many north reports through the end of October, then 11/6 St. Louis NAJ, 11/10 Lake JWL, but also see winter report. A mixed flock containing 100,000s of Red-winged Blackbirds and Common Grackles was observed entering a marsh roost 10/17 Houston FZL.

Eastern Meadowlark — All post-September north reports: 10/4 Kanabec and Pine HHD, 10/26 Todd JSK, SDu. Late south 10/5 Washington DFN, 10/28 Sherburne PLJ, 11/6 Waseca JEZ.

Western Meadowlark — Late north 10/28 Clay RHO and Polk EEF, 11/2 Pennington JMJ. Late south 9/9 Renville CRM,

10/17 Jackson PEB and Wabasha LJU.

***Sturnella*, sp?** — Approximately 100 meadowlarks reported in a single field 9/27 Pine County JMP; most birds singing were Easterns, but many were silent. Also of interest was an unidentified meadowlark found 11/14 in Olmsted PWP.

Yellow-headed Blackbird — September reports north were from Kittson, Todd, and Clearwater counties (9/6, JJS), followed only by the discovery of a partial albino individual 10/18 Traverse RBJ (median north departure 10/9). Late south 9/20 Big Stone N.W.R. (5) BEO, 10/17 Jackson PEB, 11/18 Sibley CRM (median 10/8).

Rusty Blackbird — Early north 9/22 Beltrami JMJ, 9/23 Lake RBJ. Early south 9/24 Carver RMD, 9/28 Winona PWP. High counts: estimated **1000** at Stoney Point, St. Louis (10/2, KWR, MCA), 220 at a feeder 10/30 St. Louis KRE. Late north 11/3 Carlton LAW and Cook CRM, 11/28+ Lake JWL, but also see winter report. Late south 11/12 Hennepin SLC, 11/18 Sibley CRM, 11/25 Dakota TAT.

Brewer's Blackbird — Late north 10/19 Mahnomen (500) SAS, 10/26 Carlton LAW, 10/30 St. Louis KRE (median 11/8). Late south 11/5 Pope RBJ, 11/15 Rice TFB, 11/18 Martin (7) RBJ (median 11/11).

Common Grackle — High count 10/3 Swift (2000) RBJ, but see Red-winged Blackbird. All November reports north: 11/1 Kanabec BLA, 11/10 Otter Tail DTT, SMT. See winter report for additional stragglers north and south.

GREAT-TAILED GRACKLE — All reports from Jackson, where reported from 9/20 (11, †KRE) through 10/20 (ADS). High count 16 on 10/17 (†PEB).

Brown-headed Cowbird — Late north 9/13 St. Louis MJF, 10/18 Traverse (150) RBJ (median 9/26). Late south 11/18 Le Sueur CRM, 11/25 Dakota (5) TAT, but also see winter report.

Orchard Oriole — North reports from Clay and Polk counties in August, then only 9/1–2 Marshall CRM, SWe. South reports from Dakota, Freeborn, Yellow Medicine, and (late south) 8/10 Big Stone HHD, KRE.

Baltimore Oriole — Late north 9/1 in three counties, 9/2 (BRK) and 9/7 (MWy) Becker, but see winter report! Late south 9/10 Dakota TAT, 9/14 Nicollet LWF, 9/18 Chippewa RBJ.

Pine Grosbeak — Very few reports, all in St. Louis. First found 10/14 near Independence DRB, then no reports until 11/1 SES.

Purple Finch — Early south 9/4 Hennepin SLC, 9/14 Ramsey TAT. Only reported from Mower and Pipestone in the southern third of the state.

House Finch — Found throughout the state.

Red Crossbill — Reported from Marshall, St. Louis, and Kanabec, but few in number.

White-winged Crossbill — Reported from Aitkin, Cook, Lake and St. Louis.

Common Redpoll — Belying its name, only reported 11/1 St. Louis DRB!

Hoary Redpoll — No reports.

Pine Siskin — Reported from Itasca, Wadena, Cook, Lake and St. Louis in the north. Only south reports: 10/20 Freeborn AEB, 11/1 Jackson MJC.

American Goldfinch — Found in all regions.

Evening Grosbeak — Reported from Beltrami, Itasca, Hubbard, Lake, and St. Louis. No significant numbers.

House Sparrow — Everywhere.

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TPW	Terry P. Wiens
TWa	Tom Warwa
WCM	William C. Marengo
WEN	Warren E. Nelson
WLB	William L. Brown
WMS	William M. Stauffer
WOS	William O. Stjern
m.obs	many observers

Abbreviations

C.P.	County Park
H.R.N.R.	Hawk Ridge Nature Reserve
N.W.R.	National Wildlife Refuge
S.N.A.	Scientific & Natural Area
S.P.	State Park
W.P.A.	Waterfowl Production Area
W.M.A.	Wildlife Management Area

Boreal Owls in Cook County, 2002

With notes on other owl species in the region

William H. Lane

Nocturnal, listening surveys were continued in 2002 to document the presence and distribution of Boreal and other northern forest owls in northeast Minnesota. Five routes were surveyed during the spring. Boreal Owls were detected on seven occasions during 653.3 km of surveys. In addition, 12 Barred, 68 Northern Saw-whet, 1 Long-eared, 1 Great Gray, and 8 Great Horned owls were encountered. The number of Boreal Owl detections represents the second lowest total since surveys were initiated in 1987. One nest was documented and was still active when I left the study area at the end of April.

The Boreal Owl (*Aegolius funereus*) is considered to be a regular breeding species that exists at low densities throughout northeast Minnesota (Lane 1997). The owl is found throughout extant portions of boreal forest and is associated with older trembling aspen for nesting, and lowland black spruce for roosting and foraging activities (Lane and Andersen 1995). Habitat depletion is implicated in a projected long-term population decline of the species throughout North America (Hayward 1994), and specifically, in portions of northern Minnesota (Jaako Pöyry 1992).

This study continues my long-term effort to assess the distribution, status, and ecology of Boreal and other northern forest owls in northeast Minnesota. Herein, I report the results of 2002 survey efforts.

Study Area

This study was conducted in northeast Minnesota, within Cook County and along the eastern quarter of Lake County (see: Lane 1997 for a detailed study area description). Approximately 80% of the surface area is forested, while 18% is covered by water bodies. Urban or developed land is minimally represented (Spadaccini and Whiting 1985). Climate in the region is characterized by cold winters and short summers. The mean temperature ranges from 2° F in January to 63° F in July. Annual snowfall averages 60", and rainfall averages 18" (Ahlgren 1969).

Vegetation in the study area is characterized by forest-types representative of three biotic communities: the southern-most portion of the boreal forest life zone (Rowe 1972), the broadleaf deciduous forest (Larsen 1980) and the Great Lakes-St. Lawrence forest biome (Rowe 1972) (for more detailed descriptions, see Lane 1997). Pockets of boreal, hardwood, and softwood forests persist regionally, although fire, fire suppression, and timber harvests have had considerable impact in shaping the present-day forest mosaic (Heinselman 1973).

Methods

Nocturnal listening surveys were conducted during 2002 along five established survey routes in northeast Minnesota (Lane 1997). Three time blocks (15–31 March, 1–14 April, and 15–30 April) were utilized, with each of the five routes surveyed once during each of the three time blocks, resulting in a total of 15 surveys between 15 March to 30 April.

Three minute listening stations, separated by 0.8 km, were used to detect the broadcast staccato song of the male Boreal Owl (Bondrup-Nielsen 1984) and the common calls and songs of other northern

forest owls likely to be encountered including Northern Saw-whet (*Aegolius acadicus*), Barred (*Strix varia*), Great Horned (*Bubo virginianus*), Great Gray (*Strix nebulosa*), and Long-eared owls (*Asio otus*). Surveys were initiated at least half an hour after sunset and continued until the route was completed. Surveys were not conducted in winds exceeding 18 kph or during moderate to heavy precipitation. If a route was not completed due to deteriorating weather, it was completed when conditions allowed, ideally within the same survey time block.

Two encounter indices were derived for Boreal Owls. The detection rate is the number of owls detected per total km surveyed (owls/effort) and the abundance index is the number of individual owls detected per linear route length (km) and provides a rough density estimate of Boreal Owls. Other owl species were tallied by detection per km surveyed, without adjusting for individual owls heard on more than one survey replication.

Results

Surveys were initiated on 15 March and completed on 26 April. Boreal Owls were detected on seven occasions during 653.3 km of surveys. Of the seven detections, one owl was heard on more than one sur-

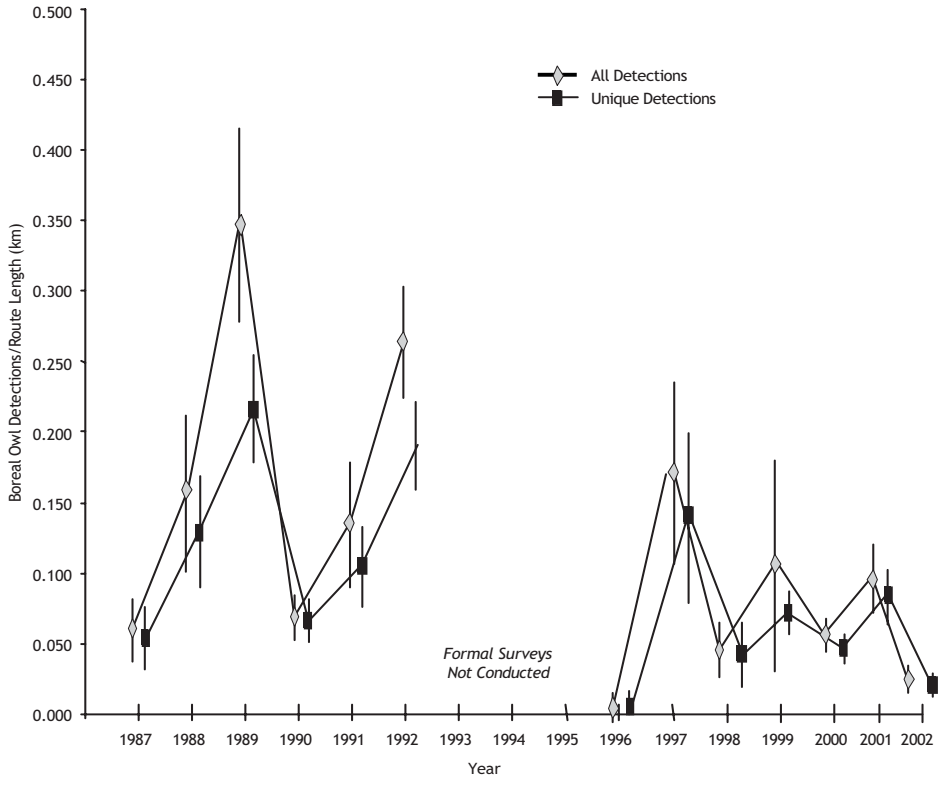

Figure 1. Annual abundance indices from 1987 through 2002 for territorial male Boreal Owls in northeast Minnesota. Individual owls detected per route length (km) is represented by a gray line, and the total detections per route length by a black line. Error bars represent SD of abundance index, using survey routes as replicates.

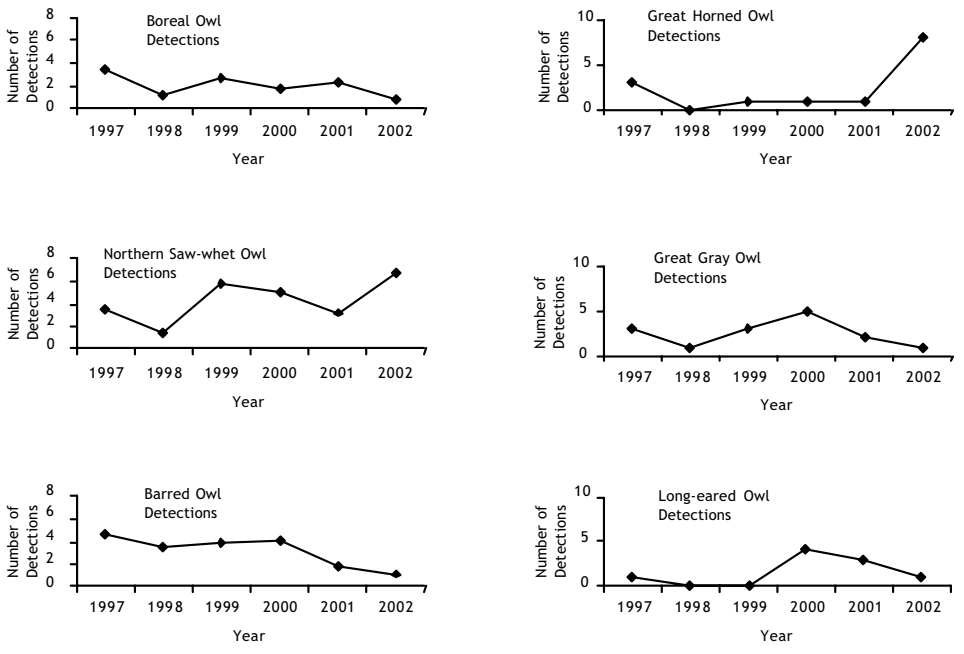

Figure 2. Owl detections for six northern forest owl species in northeast Minnesota from 1997 to 2002. Passive listening surveys were conducted along five survey routes from 15 March to 30 April each year in three time blocks (15–31 March; 1–14 April; 15–30 April). Owls were tallied according to song and/or call identification.

vey replication, resulting in an abundance index (based on six individual owls) of 0.024 owls/km (Figure 1). The Crooked Lake and Sawbill routes accounted for six of seven (85.7%) of all detections. One owl was detected on the Caribou route, and none were detected on the Gunflint or Arrowhead routes. Six of the seven detections occurred during the 15–31 March survey period, with the remaining detection occurring during the 1–14 April time block. One female Boreal was located on the territory of a singing male and she remained nest-bound throughout the field season. Other owls documented were 12 Barred, 68 Northern Saw-whet, eight Great Horned, one Great Gray, and one Long-eared.

Discussion

The seven Boreal Owl detections represent the second lowest number of Boreal Owls encountered since field work was initiated in 1987 (two were detected in 1996). Even with the decreases in detection, however, the spatial distribution of vocalizing Boreal Owls continues to suggest a shift towards habitat situated in the western portion of my study area.

While my survey protocol remains unchanged since 1987, it now appears that the 18-kph wind restriction is unnecessarily conservative, especially during the 15–30 April time block. During both 2001 and 2002, I have heard an appreciable number of owls in high winds (i.e., > 18 kph) and it appears that wind, especially with warmer temperatures, may not have as large an influence on singing as I had originally thought. Regardless of the singing that may occur during warm and windy conditions, it rarely is documented

during cold and windy conditions.

Because 2002 Boreal Owl numbers were reduced, an interpretation of seasonal variation in singing by male Boreal Owls is difficult. There has historically been an increase in Boreal Owl singing detections through the first part of April, although exceptions have been noted and interestingly, singing during my last survey period appears to be more prevalent during recent years. Although weather and ambient conditions affect singing, photoperiod is believed to exert the greatest influence in stimulating the onset of singing in owls. Why Boreal Owls should exhibit the temporal shift in singing is uncertain. Ambient conditions, proximal factors, and photoperiod likely combine to influence singing and for unpaired males, the presence of a female certainly cannot be overlooked in stimulating spring time singing.

As erratic as the temporal pattern of singing may be for Boreal Owls, Northern Saw-whet Owl vocalization activity typically increases during the last two weeks of April, a pattern highly visible during 2002. Of a total of 68 Northern Saw-whet Owls detected, 43 (63.2%) were documented during the last two weeks of April. This "peak" suggests an approximate time frame for the species' migration in and through northeast Minnesota. Conversely, the lack of singing activity peaks for Boreal Owls may reflect the resident, or non-migratory nature of the species, especially during non-irruptive years.

The observation of Boreal and Saw-whet Owls affords an interesting opportunity to investigate owl biology in northeast Minnesota. Both species are small mammal specialists and accordingly, one would expect predator populations to respond in a similar manner to increases or decreases in prey populations. For example, when microtine populations are increasing, Boreal and Saw-whet populations should respond in a similar fashion, including more singing, more nesting attempts, and greater nesting successes. This relationship/response is suggested for Borealss and Saw-whets from 1997–1999 (Figure 2), but since then, Saw-whets have outnumbered Borealss by a greater than 2:1 margin. Obviously, resource availability, resource selection, and the owls' responses to changes in the resources are different for the two species.

Both Boreal and Northern Saw-whet owls are dependent upon the presence of cavity trees for nesting, and the presence of cavity trees necessarily defines each owl's breeding distribution. However, while Boreal Owls are limited in their distribution to a specific landscape-scale habitat mosaic (i.e., lowland conifers juxtaposed with upland mixed forests), Saw-whets (based on 16 years of observation) appear to be associated with widely distributed mixed, deciduous/coniferous forests, without the lowland "requirement" demonstrated by Borealss. This relationship suggests that the Saw-whet is a habitat generalist (cavity tree notwithstanding) and that its flexibility should be reflected by greater owl numbers and a wider distribution. In fact, Northern Saw-whet Owls are now the most abundant owl species in the region, broadly distributed throughout my study area, and are found in a variety of habitat types with one common feature: cavity trees.

As suggested by Figure 2, Barred Owl vocalization activity has decreased markedly over the past two years — a silence highly noticeable during 2001 and 2002 field activities. Initially, I attributed the decrease to the after-effects of the 4 July 1999 wind storm, especially along the Gunflint route; historically my most productive Barred Owl route. However, the decrease in Barred Owl numbers along the Gunflint was not countered by an increase elsewhere, especially in areas supporting relatively intact upland deciduous and riparian forest patches. Because the decrease in Barred Owls is widespread, whereas the effects of the wind storm were not, it appears the population of Barred Owls has decreased throughout my study area. Unfortunately, virtually nothing is known about the species in northeast Minnesota, and especially its prey base. It would seem prudent to direct

future research attention to the species.

Whereas Barred Owl numbers appear to have been negatively affected by the wind storm along the Gunflint Trail, Great Horned Owls appear to be taking advantage of the now-open landscape. Three Great Horned Owl pairs were located along the stretch of impacted land, marking the first noticeable appearance of the species along this route.

Great Gray and Long-eared owls remain largely silent and/or absent from the study area, although I would tend to assign the former category to Great Grays and the latter to Long-eareds. Great Grays are seen during crepuscular hours more often than they are heard during surveys and Long-eareds, like Great Horned Owls, appear to becoming more common in the area.

Given the variability in owl numbers over the years, one would be remiss not to look for a cause and effect relationship connecting those fluctuations. It is most pragmatic to assume that increases in prey populations cause increases in predator populations. When prey numbers are high, nesting attempts and nesting successes both increase. Yet this relationship is not so simplistic. With irruptive species, for instance, decreases in prey populations in one area will necessarily increase the predator populations elsewhere.

Another cause and effect relationship is that of decreasing habitat availability and declining owl populations. Unfortunately, this relationship is the most problematic as it points to either ecosystem deficiencies — or in the case of managed forests — the improper application of a management plan. In today's forests, these two factors are intricately linked.

I have long suggested that Boreal Owl populations are in a decline and that this decline is directly associated with the loss of preferred habitat. For example: during the irruption year of 1989, 55 individual Boreal Owls were located with a wide distribution throughout my study area. During recent irruption years (1997, 2001), however, Boreal Owls have been concentrated into fewer forest stands that comprise but a fraction of my study area. This suggests several causes: 1) Boreal Owl source populations (i.e., Canadian) are in decline and are unable to provide a significant infusion of immigrants to Minnesota's populations; or, 2) that habitat in northeast Minnesota is unable to support the large numbers of Boreal Owls it once did.

I suggest that given the apparent decrease in Boreal (and other) Owl numbers, it is increasingly important that my surveys be connected to an assessment of changes to the forest mosaic in northeast Minnesota. Landsat-TM imagery is available for the area, dating back to the early 1980s, and includes periodic coverages allowing both the identification and differentiation of forest features (Wolter and Lane 2000). In turn, Landsat coverage may be incorporated into a Geographic Information System (GIS), resulting in a depiction of forest changes over the past 20 years and its relationship with annual owl survey data, owl locations, and owl nest sites.

Acknowledgments

Support for this project was provided by the Tofte Ranger District and the Superior National Forest (SNF), Bill Martz and Wildlife Technologies, and the Friends of the Boundary Waters. My sincere thanks to Sue and Jack McDonnell, Boreal Access, Wayne Russ, Jackie Andrew, and Ed Lindquist (SNF) and the dedicated people at the Tofte Ranger Station. Thank you Nikky for showing me the world through innocent eyes. By now, everyone knows this is a sickness, and by now, everyone knows I am not looking for a cure.

Literature Cited

Ahlgren, C. E. 1969. Eighteen years of weather in the Boundary Waters Canoe Area. Quetico-Superior Wilderness Research Center. Minnesota Agric. Experiment Station Miscellaneous Report 88. St. Paul, MN.

Bondrup-Nielsen, S. 1984. Vocalizations of the Boreal Owl, *Aegolius funereus richardsoni*, in North America. *Can. Field Nat.* 98:191–197.

Hayward, G. D. 1994. Flammulated, boreal and Great Gray Owls in the United States: a technical conservation assessment. U.S. For. Serv. Rocky Mountain Forest and Range Experiment Station. Gen. Tech. Report RM-253. 213 pp.
Hayward, G. D. 1997. Forest Management and conservation of Boreal Owls in North America. *J. Raptor Res.* 31(2): 114–124.
Heinselman, M. L. 1973. Fire in the virgin forests of the Boundary Waters Canoe Area, Minnesota. *Quaternary Res.* 3: 329–382.
Jaako Pöyry Consulting, Inc. and Minnesota Environmental Quality Board. 1992. Generic environmental impact statement on forest management and harvesting in Minnesota: forest wildlife. St. Paul, MN.
Lane, W. H. 1997. Distribution and ecology of Boreal Owls in northeast Minnesota. M.S. Thesis. Univ. of Minnesota. 103 pp.
Lane, W. H., and D. E. Andersen. 1995. Habitat requirements for Boreal Owls in northeastern Minnesota. U.S.D.A. Cooperative Agreement: 23-93-40. 53 pp.
Larsen, J. A. 1980. The boreal ecosystem. Academic Press. New York. 500 pp.
Rowe, J. S. 1972. Forest regions of Canada. Canada Dep. of Northern Affairs and Natural Resources, Forestry Branch, Bull. 123, 71 pp.
Spadaccini, V., and K. Whiting, eds. 1985. Minnesota pocket data book. Blue Sky Marketing Inc., St. Paul. 397 pp.
Wolter, P. T., and W. H. Lane. 2000. A look at Boreal Owl nesting habitat in northeastern Minnesota using Landsat data. Submitted for publication.

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BIRDING BY HINDSIGHT

A Third Look at Field Notes

Kim R. Eckert

Now that spring migration is over and the breeding birds are no longer singing like they did in June, you might as well hang up the binoculars until fall. Time for some light summer reading. So, for the third time — not just the second, as is customary in this *Hindsight* series of articles — let's lie back in the hammock and take another look at the latest entries in my old ID notebook.

Some readers will recall there were two previous installments examining

some of the contents of my field identification journal (***The Loon*** 72:170–176 and 73:118–121). These entries, which began back in 1984, are notations on various bird identification revelations learned while out in the field.

The items in these first two articles included 16 years, as far as October of 2000, and at press time there was this loon causing some unresolved ID difficulties. Here's an update:

"10/12/00. Red-throated Loon: a juvenile seen on Lake Superior near my house; identified mainly by dusky area on throat and foreneck (which Pacific never shows?). Bird never seen to hold bill uptilted (seen on three different days) and bill shape not distinctive — therefore, tentative first ID was Pacific Loon. Also seen: pale gray head and nape (suggesting Pacific), no visible back/wings markings, white sides at water line sometimes present."

I apparently had never seen or studied a young Red-throated Loon before, and my assumption was it would have the same distinctive bill shape and posture as an adult. Since it didn't, and since I was initially unaware a juvenile Red-throated's bill can look "normal" and Pacific-like, my first ID was erroneous.

• Though the next brief entry comes from Florida, it does have some potential relevance for Minnesota birders:

"April 2002, Florida. Snowy Plover very pale and whitish, much paler above than Texas birds."

It had been years since I had looked at this species on the Gulf coast of Florida, and I had forgotten how pale they are dorsally. I was used to looking at Snowy Plovers from the West wintering in Texas: their upperparts are about the same shade as Piping Plovers — or even perhaps a bit darker. Though the Snowy Plover is only Accidental in Minnesota, there are at least eight records, so it will appear again. And when you find one, be sure to take careful note of its back and wing color, and we may then learn something about where this vagrant originates.

• One of the entries from the second article in this series referred to an unidentified duck, possibly a Black Scoter, seen in 1996. I'm still unsure what it was, and I was reminded of that when several observers saw this duck in Duluth:

"5/2/02. Unusually plumaged duck at Park Point — probably a hybrid or aberrant Bufflehead. Same body, head, bill size/shape as all adjacent female Buffleheads with it; same bill and eye color; crown paler; blackish-brown lores, around eye, and fading on ear coverts; crown, chin, neck, and chest dirty white; back and folded wings darker than sides; spread wings, legs/feet not seen."

I'd still like to hear if anyone has any theories on the ID of this duck, or the one from 1996.

• Just as the Eastern Phoebe is widespread in Minnesota in summer, it also commonly winters in South Texas, and for the first time last fall I noted something about this familiar bird:

"November 2002. In Texas in winter, Eastern Phoebe has two calls I don't remember ever hearing up north: 1) a short trill similar to Vermilion Flycatcher or Black Phoebe; and 2) a downslurred 'teurr' suggesting Lesser Goldfinch."

When I asked other birders about this, one explanation was that these were contact notes between adjacent wintering birds. Since phoebes nesting in Minnesota are in separate breeding territories, contact between them is minimal, as would be any contact calls. But I am still curious if any birders here have heard phoebes in summer or migration giving any vocalizations other than their familiar "phoebe" song or their loud, sharp, single call note.

• Though I have seen migrant Worm-eating Warblers several times in Texas and elsewhere, until this year I had somehow apparently never birded in their breeding range or heard one singing:

"April 2003. Worm-eating Warblers singing on territory on Sassafras Mt., South Carolina — a lifer song. Typical song softer, shorter, and a thinner buzzing trill than Chipping Sparrow. One song, however, had a Chipping Sparrow quality of trill, but not as loud or as long."

Since this warbler is a highly sought

rarity in Minnesota, I have had hopes of finding one here some year by first detecting its song. I now have doubts I could unerringly do this, though, after learning its song in Carolina. There are just too many Chipping Sparrows out there capable of varying their songs enough to sound like a Worm-eating Warbler.

• Speaking of warbler songs, I was reminded again this year both in Manitoba and here in Minnesota just how tricky heard-only warbler identifications can be:

"5/25/03, Gunflint Trail. Several Magnolia Warblers heard singing; not until someone asked me how to tell its song from a Chestnut-sided did I realize how similar they can be. Hard to explain and takes practice: Magnolia's song (the one which drops in pitch at the end) is slower and has fewer notes than the typical Chestnut-sided, which is faster with the beginning notes run together more in a jumble."

"5/31/03, Blue Mounds. Atypical warbler song heard and not IDed for several minutes until bird became visible — a Blackpoll. Song was run together into a trill, notes not separate as is normal; first thought it might be a weak Chipping Sparrow or Worm-eating."

"June 2003. In Manitoba, Minn. and Wis., noticed again how similar other warblers can sound to Bay-breasteds/Cape Mays. Again at Paint Lake Cape Mays often sang alternate 2-syllabled song which I can't tell from Bay-breasted. Blackburnian song can be variable enough to sound just like a Bay-breasted. Black-and-whites, even at close range, can sound 1-syllabled like Cape Mays, or short and weak just like Bay-breasteds."

As I've already discussed with other birders on occasion, I remain skeptical of any heard-only reports of Bay-breasted and Cape May warblers in Minnesota and vicinity. There may be circumstances when such IDs can be made, but normally you need to see the singer to be sure.

• I've long been an advocate of looking at blackbirds eye-to-eye. It can actually help to sort through the ID of these birds by first and simply noting iris color: Common and Great-tailed grackles, male Brewer's Blackbirds and Rusty Blackbirds have pale eyes; female Brewer's Blackbirds, Red-winged Blackbirds and Brown-headed Cowbirds have dark ones. But I recently found myself taking a long and hard second look at this:

"5/31/03. Female Great-tailed Grackles feeding on berm of Hills sewage ponds seemed to have dark eyes, even through scope! First thought the light conditions were tricky (they weren't) or they might be dark-eyed juveniles (wrong for this time of year), but after watching them closely their eyes changed at times from dark to pale. My only theory is their nictitating membranes were closed to protect their eyes as they fed in the grass, making their pale eyes seem dark?"

"June 2003. At Felton Prairie a female Brewer's Blackbird was seen with both eyes pale, not dark!"

Like most Minnesota birders, I've felt it natural and safe to assume that any large-tailed grackle in Minnesota is a Great-tailed: the relative possibility of a Boat-tailed here is simply too remote to consider. However, it was definitely sobering for a few minutes to observe what appeared to be some adult dark-eyed grackles in Minnesota — which would have had to be Boat-taileds. And, regarding that female Brewer's Blackbird, I was reminded of another pale-eyed female in my yard back in 1984. (This bird and a dark-eyed juvenile Rusty Blackbird were included in the first article in this series.) I also note that Sibley's field guide mentions under Brewer's Blackbird that an "occasional female has pale eye."

• Whether you want to call them intermediates or hybrids, look at enough Western and Clark's grebes and you are bound to encounter some that are in-between and hard to classify. I had an excellent study of one of these last month:

"June 2003. Another intermediate grebe in ND: both sides/flanks pale like a Clark's, and it repeatedly gave the 1-syllabled call like Clark's. But both sides of bill dull greenish-yellow like Western. Face pattern in-between on both sides: black cap down to top of eyes, lores white with

narrow black line below lores between eyes and bill."

Over the years, I've noticed a few other Western/Clark's grebes that I certainly have to assume were hybrids. Looking at one side of them, their bill color, face pattern and flank color would all be typical for Clark's; then they'd rotate around and their bill, face and flanks on the other side were entirely typical for Western! My advice when dealing with these grebes is two-fold: first, be prepared to leave some as unidentified (like the one last month in North Dakota); and second, before identifying a Clark's here, always try to see it from both the right and left sides to make sure it's not a "MidWestern" grebe.

OK, my bedtime stories are over. If you're still awake, it's time to turn in and dream of fall migration. Oh, wait, come to think of it, it's already here: I saw my first southbound Pectoral Sandpiper back on June 21. You've already missed a month of migration!

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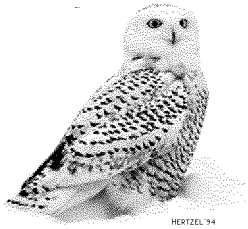


BOOK REVIEWS

HANDBOOK OF THE BIRDS OF THE WORLD, VOL. 7. Jacamars to Woodpeckers. J. del Hoyo, A. Elliott, and J. Sargatal, editors. Lynx Edicións, Barcelona, Spain, 2002, 613 pp. (folio). $185 (postage and handling included). These and future volumes are available from specialty bookstores or from the publisher: Lynx Edicions, Passeig de Grácia, 12, 08007 Barcelona, Spain. For more information, inquiries may be sent via email (lynx@hbw.com), or see the publisher's web page (http://www.hbw.com).

This series has been regular in its development and issuance, and it has maintained and even increased its high quality. Although it was earlier projected to total 12 volumes at completion, this has now been extended to a more realistic 16 volumes with the increasing length that the family and species accounts have come to occupy. This volume completes the non-passerines, treating the Galbuliformes (the jacamars and puffbirds; two families) and the Piciformes (the barbets, toucans, honeyguides, and woodpeckers; four families). It is illustrated by 70 color plates and over 300 photographs. Something on the order of 408 species are treated. A separate, illustrated, laminated sheet provides a family-level index to the non-passerine volumes.

The 58 page Foreword on extinct birds by Errol Fuller is a well illustrated digest of his book *Extinct Birds* (Oxford University Press). The family and species accounts for this volume, which follow the Foreword, have been written by nine authors and illustrated by 14 artists and hundreds of photographs. As usual, the photographs are stunning, perhaps more so in this volume because of the gaudy colors found so commonly in these taxa, particularly among the toucans, barbets, and woodpeckers.

Jacamars (*Galbulidae*) and puffbirds (*Bucconidae*) traditionally have been considered part of the order Piciformes (sub-

order *Galbulae*), but are here separated into their own order (*Galbuliformes*). Apparently, debate over morphological details of the zygodactyl arrangement of the toes in these two groups, together with other morphological evidence and some molecular data, support their separation at the ordinal level. More work at these higher taxonomic levels is needed to recover the true history of these relationships. Jacamars comprise just 18 species; puffbirds 35. Both families are Neotropical woodland insectivores, although some puffbirds also eat small vertebrates such as reptiles and amphibians.

Barbets are treated here as a single family (*Capitonidae*). This is a traditional arrangement and one that is supported by gross morphology. Molecular evidence suggests that New World barbets are more closely related to toucans (*Ramphastidae*), however. Here Lester Short adopts an "evolutionary" rather than a cladistic approach, which apparently considers not just the branching of the groups, but also their divergence (presumably morphological in this case). There are 82 species of barbets; just 15 occur in the Neotropics, and the rest occur in the Paleotropics of Africa and Asia. The family's center of diversity is tropical Africa. It is a fascinating group of birds and this volume provides my first introduction to it; I have yet to see one in the wild. In this respect I think it is important to note that these *Birds of the World* volumes provide a luxuriant introduction to groups of birds one has yet to encounter, and learning about personally unexplored areas of the class Aves is one of the real pleasures of reading these books.

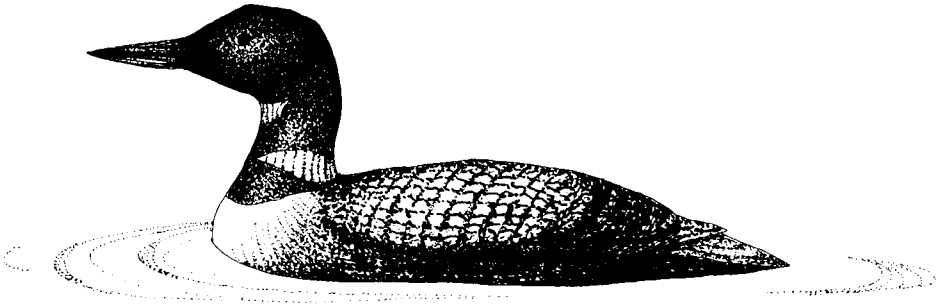
Toucans (*Ramphastidae*), like jacamars and puffbirds, are an endemic Neotropical family. The 34 species are mostly frugivorous, but I know that many ornithology students are surprised to learn that these almost comical and widely loved birds are notorious nest robbers as well, taking eggs and chicks of other species. Why toucans have long bills does not seem to be discussed adequately. Personally, after watching them for years, I think it's likely that the long bills enable these generally heavy-bodied birds to feed on fruits at the ends of delicate twigs.

Honeyguides (*Indicatoridae*) are a Paleotropical family of just 14 species. Their name comes from their habit of leading predators to the nests of bees. Honeyguides are dependent to a large degree on beeswax for food. Only one species, the Greater Honeyguide (*indicator*), is known to lead humans to bees' nests. Interestingly, those species whose breeding is known are obligate brood parasites — they lay their eggs in the nests of other species, who then incubate these eggs and rear the young. This is an understudied family.

Woodpeckers (*Picidae*) occur on all continents except Australia and Antarctica. There are 216 species. This old and widely recognized group of birds comprises 259 pages of the book, or over half of the family and species accounts. I think my favorite photograph in the whole volume is that of a *Picus viridis* with its tongue extended into a cross section of wood to obtain a larval occupant (p. 319). This image shows the dramatic abilities of the woodpecker tongue to extend deeply into an insect borehole; the tongue in this case is extended well beyond the length of the bird's head.

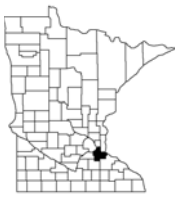
As a reference, this volume continues to represent the definitive work on the birds of the world. The style of cramming all the references used in each account (whether family or species) at the end in a telegraphic manner without true citations being given in the text makes it difficult to use these volumes as a steppingstone into the primary literature. In this volume, Short gets around this stylistic (editorial) limitation in part by providing authors' names in the text when discussing their work. As with previous volumes, however, this book is more than just a reference work. In its highly illustrated and engaging presentation, it is a book one can spend long hours just reading for pleasure if one enjoys birds.

Kevin Winker, University of Alaska Museum, 907 Yukon Drive, Fairbanks, AK 99775.



NOTES OF INTEREST

NORTHERN MOCKINGBIRDS NEST IN DAKOTA COUNTY — A Northern Mockingbird (*Mimus polyglottis*) was found by Paul and Erika Sitz on 29 June 2002, at the Dakota County electrical substation in Empire Township. At 6:00 A.M., 30 June, I visited this site and found two mockingbirds in the area. One bird sang repeatedly, the other perched quietly nearby. The quiet bird appeared slightly smaller and slimmer. Both birds flew to the ground to feed on several occasions and showed no aggression towards each other. I watched them for a total of about 20 minutes. The habitat surrounding and immediately adjacent to the substation is generally agricultural, consisting of grass and alfalfa hay land, and corn. A few small (2–3m) spruce and deciduous trees have been planted on the substation property.



When I returned on 4 July, one of the mockingbirds was singing from a nearby yard. He then flew to another yard about one quarter mile to the east, but soon returned to the substation area to feed. In all, both mockingbirds were seen over an area of about one quarter mile square.

On 15 July at 8:00 P.M., an adult carrying food entered a spruce tree and left about 45 seconds later with no food. After one half hour both adults flew to the north out of sight, providing an opportunity for me to look for a nest. I quickly checked the tree and immediately located a nest with four black downy young, probably about two days old. The three meter high tree was only five meters from the substation perimeter fence. The nest was a rather messy, loose assortment of grasses and was one meter above the ground on the northwest quadrant of the tree.

On 27 July at 9:45 A.M., an adult was feeding at least two fledged young in the nest tree. The young were in the outer branches of the tree. All I could see was heavy mottling on the breasts and very short tails. I left as soon as an an adult began giving alarm calls. A nearly fully developed juvenile was present near the nest tree on 5 August. Its tail was about three quarters the length of a nearby adult, but otherwise looked like an adult.

Anthony Hertzel provided the following nesting records for Northern Mockingbirds in Minnesota. They nested in Morrison County in 1968 and again in 1969 (***The Loon*** 40:125; 41:112; 41:128), in Hennepin County in June 1996 (***The Loon*** 69:22), and in Rock County in June 1977 (***The Loon*** 49:229–230). This is the complete record, making the Dakota County nesting the fifth for the state. **Jim Mattsson, 570 South Greenleaf Drive, Eagan, MN 55123.**

RUFF IN DAKOTA COUNTY — On 7 August 2002, I went to the Wagner Sod Farm near Castle Rock to check for shorebirds. There had been some heavy storms recently and typically this area will flood over and draw in numerous migrants. There were quite a few birds present, including Greater and Lesser yellowlegs, Least Sandpiper, Pectoral Sandpiper, and several Buff-breasted Sandpipers. It was around 12:30 P.M., and although it was partly cloudy, the light was glaring on the pooled water. Studying the birds was challenging. At times all you could see as they moved about were silhouettes.

While observing the yellowlegs, I saw a bird that appeared to be a partial albino. It was about the same size as a Greater Yellowlegs and had a mostly white face. Studying it was a real effort as it was actively feeding among the yellowlegs and moved in and out between birds. I was struck by how uniform the white markings were on each side of the face. Occasionally when I see partial albinos there is a lack of symmetry in the markings. I couldn't recall ever seeing any shorebird that showed signs of albinism, and I began observing this bird much more carefully.

The bill was shorter and straighter than that of a Greater Yellowlegs. Its forehead and crown were very dark, including the loral area. Above the eye was a broad white supercilium, while a thin dark eyeline extended behind. The auriculars were white and very neatly curved downward. The rest of the neck seemed a brownish-gray, along with most of the body. The dark crown narrowed at the nape, and became a dark line extending down the back of the neck. The effect was very striking and distinct and I had never seen anything like this before. The body was noticeably plumper compared to both of the yellowlegs. The belly seemed whitish, but I couldn't make out any leg color.

The birds were feeding by a flooded drainage ditch — a narrow channel defined by higher grasses and cattails. There was more pooled water on the other side. Suddenly, this bird flew up, barely clearing the top of the vegetation and landed out of sight on the other side. While it only flapped its wings a few times, I could see that most of the underwing was whitish. I didn't see anything on the tail or any other details, as this happened very quickly. There was no way to maneuver to a better viewing location as the bird was now behind one of the houses on the property.

I was on my lunch hour from work and had to leave. Driving back, I thought about all of the details I had observed, and wondered if this bird could possibly have been a Ruff, perhaps a male bird molting into basic plumage. I was dissatisfied because there were details that I wish I had seen but did not. I reported the bird as a "possible Ruff," hoping someone would be able to find it again and see more details. Mark Ochs relocated it and was able see details on the tail and the leg color. He agreed the bird was an adult Ruff. While he was observing it close to sunset, it flew up and away to the northwest, and was gone.

Amazingly, this was the third record of a Ruff in Dakota County, and all the records occurred within a 16 month time frame. Both previous records had been females, the most recent from 23 May 2002. **Drew Smith, 3606 Widgeon Way, Eagan MN 55123.**

SUMMER TANAGER LINGERS IN PENNINGTON COUNTY — On 9 November 2002, I observed and photographed a Summer Tanager (*Piranga rubra*) at the home of Grace Mayta and Norma Haugen in Thief River Falls, Pennington County. The bird first appeared at their feeders on 5 November and was last seen 30 November 2002. It mostly fed on suet, but also foraged for safflower and sunflower seeds spilled on the ground below the feeders. I photographed the tanager as it perched on the railing of the porch and bathed in a saucer of water. On one occasion

after it visited the suet feeder, it perched on a large, horizontal branch of an oak tree and repeatedly wiped its bill on the bark.

Its overall size and shape were typical for a North American tanager. Its bill appeared relatively large, though no similar species were available for comparison. The bill was thickest at the base, slightly downcurved along the culmen, and pinkish in color with slight dusky tones on the culmen. Its irides were dark and the legs were dark grayish. Its head shape was peaked at the hindcrown. The tanager's head and neck appeared yellowish-green, becoming more yellowish on the throat. A reddish infusion was visible on its face. Its back and scapulars were greenish except for sparse red on a few of its upper scapular feathers. Its wing coverts looked greenish, with minimal contrast between the wings and back. The tertials were pale-edged but there was not even a hint of wing-bars. Its rump was yellowish-green, gradually becoming reddish on the upper-tail coverts. Its tail was slightly notched and olive-green, about the same shade as the folded primaries. Depending on light and contrast, its underparts appeared greenish-yellow to greenish-orange.

The remote possibility of Hepatic Tanager (*Piranga flava*) was considered, but was eliminated by bill color and the absence of a grayish cheek patch. This was the second Pennington County record of the Summer Tanager — one previously occurred at this same location at about the same time of year — 13 November 1993 (***The Loon*** 66:91). It also provided the second latest north date, exceeded only by one at Duluth, 2 December 2001 (***The Loon*** 74:149). This note is dedicated to the memory of Norma Haugen, who appreciated birds and the visitors who came to watch them in her backyard. **Peder H. Svingen, 2602 E. 4th St., Duluth, MN 55812.**

IDENTIFICATION OF A JUVENILE RED-THROATED LOON SHOWING A WHITE FLANK PATCH — 
On 8 October 2002, Mike Hendrickson called to report his discovery of a small loon showing an obvious white flank patch on Lake Superior off Park Point in Duluth, St. Louis County. Mike was unable to spend the time needed to get closer to the bird for satisfactory identification. After work, I scanned the lake from an observation deck near the airport and spotted a loon about a mile away. It definitely showed an obvious white flank patch, which suggested the possibility of an Arctic Loon (*Gavia arctica*). I hiked out past the airport and relocated the bird about 250 yards beyond the southeast end of the runway. Even though it was constantly diving and sometimes difficult to find after it surfaced, the lighting was good and at times it was only about 150 yards off shore. I watched it through a Leica Televid APO spotting scope with a 20–60x eyepiece, intermittently between 5:30 and 6:30 P.M., looking northeast under broken overcast skies with occasional sunshine.

I quickly determined that it was not an Arctic/Pacific Loon. Among other characteristics, it lacked the typical head shape, dark lores, crisp demarcation between dark and light on the face and foreneck, paler hindnape, and bill size/shape for either of these two (formerly conspecific) species (Birch and Lee 1997). On the other hand, it was not immediately apparent that this was a Red-throated Loon (*Gavia stellata*) either, since it held its bill horizontal at all times, the lower mandible did not appear up-swept, and the bill was not particularly thin-looking. Reliance on bill characteristics alone can lead to misidentification (Stevenson 1991). However, its head shape looked slightly angular instead of smoothly rounded or "snake-like" like a typical Red-throated, and there was still the problem of that large whitish flank patch extending onto or almost onto the sides of its rump.

The loon's head and neck were dull grayish-brown, slightly lighter than its back. The grayish-brown color on its face was fairly uniform (i.e., not blackish in the lores)

and gradually washed out to become pale (almost whitish) on its cheeks and chin. Its foreneck was diffusely streaked and gradually blended with the grayish-brown color on its neck sides (i.e., no sharp demarcation between its foreneck and hindneck). Its back appeared dark gray-brown with minimal pale spotting (there were no white bars on the scapulars and no scalloping). It did not toss its head back or leap forward while diving; instead, it simply lowered its head into the water and started its dive with one smooth, fluid motion.

I concluded that this was a juvenile Red-throated Loon showing a whitish flank patch, which could have led to its misidentification as an Arctic Loon. This potential identification pitfall was pointed out by Appleby *et al.* (1986), who wrote, "the flanks of Red-throated Divers are comparatively sparsely marked with dark, so they usually show a lot of white above the waterline. When they are sitting low in the water, however, the visible extent of white is reduced, sometimes to an isolated patch on the rear flanks, in exactly the same position as often shown by Black-throated Divers." Additional comments on the identification of juvenile Red-throated Loon can be found in ***The Loon*** 63:273.

Literature Cited

Appleby, R. H., S. C. Madge, and K. Mullarney. 1986. Identification of divers in immature and winter plumages. *British Birds* 79:365–391.

Birch, A., and C.-T. Lee. 1997. Arctic and Pacific Loons: field identification. *Birding* 29: 106–115.

Stevenson, H. M. 1991. Incorrect identification of a Red-throated Loon as a Pacific Loon based on bill shape. *Florida Field Naturalist* 19:107–109.

Peder H. Svingen, 2602 East 4th St., Duluth, MN 55812.

PACIFIC LOON IN DAKOTA COUNTY — On 3 October 2002, I was returning from an early morning appointment in Eden Prairie and decided to make a stop at Black Dog Lake in Burnsville to check for migrants. The weather was overcast with low cloud cover and periods of light rain. I pulled into the parking lot that is near the middle of the west end of the lake and proceeded to the wildlife observation deck. I made a quick scan with my binoculars, found a loon at fairly close range, and switched to my scope for a better look.

The lighting was poor at best, but with the scope view it was immediately obvious this was a Pacific Loon. The bill was light gray with a dark ridge on the culmen, and its shape was straight, tapering to a point. The bird held its bill parallel to the water surface. The forehead was dark, turning to a dark gray about mid-crown and continuing down the nape. The eye was completely covered by this dark colored area, except for a small arc of white in front of the eye. The auriculars, throat and foreneck were also white. I did not see a chinstrap, but this may have only been discernible in better light. (In personal communication with later observers, some saw one and others didn't.) The side of the neck had a stripe separating the gray nape from the white throat. This three-toned effect is limited to Pacific and Arctic loons. The back and sides were a very sooty, dark gray — darker than the nape. The feather tips on the back were edged in brown, which created a barred effect across the bird's back. This aged the bird as a juvenile. There was no indication of a white flank patch.

I watched the bird for only about ten minutes, then quickly left to get the information on the hotline and internet, and make some phone calls. Numerous birders were able to see the bird throughout the day. While Pacific Loon is considered a Regular species in Minnesota, it is still very rare away from lakes Superior and Mille Lacs. This is the first record for Dakota County. **Drew Smith, 3606 Widgeon Way, Eagan, MN 55123.**

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The Minnesota Ornithologists' Union is an organization of both professionals and amateurs interested in birds. We foster the study of birds. We aim to create and increase public interest in birds, and to promote the preservation of birdlife and its natural habitat.

To carry out these aims, we publish a journal, ***The Loon***, and a newsletter, *Minnesota Birding;* we conduct field trips; we encourage and sponsor the preservation of natural areas; we hold seminars where research reports, unusual observations and conservation discussions are presented. We are supported by dues from members, affiliated clubs and special gifts. Any or all phases of the MOU program could be expanded significantly with gifts, memorials or bequests willed to the organization.

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The editors of ***The Loon*** welcome submissions of articles, Notes of Interest, color slides, and color or black & white photographs. Submissions should be typed, double-spaced and single-sided. Notes of Interest should be less than two pages. Photographs should be 5"x7". Whenever possible, please include a copy of your submission in any standard format on any size computer disk.

Club information and other announcements of general interest should be sent to the Newsletter editors. See inside front cover. Bird sighting reports for each season should be sent promptly at the end of February, May, July and November to Peder Svingen. See key to the "Seasonal Report."

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The Red-headed Woodpecker In Minnesota

James L. Howitz

Robert Janssen (2000) showed, using Breeding Bird Survey data, that Western Meadowlark (*Sturnella neglecta*) numbers in Minnesota have decreased significantly in recent years. Western Meadowlarks are such conspicuous birds and so typical of western Minnesota and the Dakotas, that such a decline seems incongruous.

Red-headed Woodpecker (*Melanerpes erythrocephalus*) is also a conspicuous species thought to be decreasing drastically in number. This was the species most people in the East thought of when mention was made of woodpeckers. They were common in both urban and rural areas.

To see if Red-headed Woodpecker populations in Minnesota have been decreasing, I examined three data sets, "Seasonal Reports" in ***The Loon***, Breeding Bird Survey data, and Christmas Bird Count data.

I examined the records published in the "Seasonal Reports" section of ***The Loon*** over the thirty year period 1973 through 2002. Therein is listed the number of counties in Minnesota in which a bird was observed in a given season. Declines in Red-headed Woodpecker numbers in Minnesota likely would be evident only from this data set in an Armageddon scenario where the species disappeared from entire counties. The trend line for the reporting of Red-headed Woodpeckers during the summer season for this period actually has a slightly positive slope (0.05 counties per year), but this is not statistically significant (r = .068). Hence, Red-headed Woodpeckers still can be found in most areas of the state. (Historically, they apparently never have occurred regularly in extreme northeastern Minnesota [Janssen 1987]). The data for the spring and fall seasons also show nonsignificant, though positive slopes. For the winter season during this period, the slope of the trend line is slightly negative (-0.2 counties per year), and is also not statistically different from a slope of 0 (r = 0.06). All these suggest a relatively stable population in Minnesota.

I performed similar analyses with other common species of woodpeckers: Red-bellied Woodpecker (*M. carolinus*), Downy Woodpecker (*Picoides pubescens*), Hairy Woodpecker (*P. villosus*), Pileated Woodpecker (*Dryocopus pileatus*), and Northern Flicker (*Colaptes auratus*), and with Blue Jays (*Cyanocitta cristata*). Factors adversely affecting Red-headed Woodpecker numbers might have similar impacts on other woodpeckers. Blue Jays and Red-headed Woodpeckers are the principal Minnesota birds whose winter numbers purportedly fluctuate with the mast (acorn crop), and so changes in Blue Jay numbers might parallel those in Red-headed Woodpeckers.

Table 1 shows the slope of the regression line and correlation for the relation of number of counties where a species was reported for the years 1973–2002. For each species other than Red-headed Woodpeckers, the slopes are positive and significantly different from zero. Thus, these species have been reported in an increasing number of Minnesota counties in the past thirty years.

Downy and Hairy woodpeckers and Blue Jays probably have been in every county of the state since long before statehood in 1858. Therefore, the increases in number of counties in which these three species are reported must be due to the increased number of observers filing

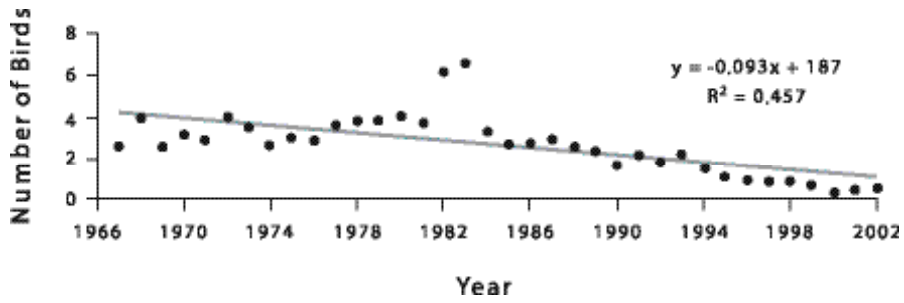

Figure 1. Number of Red-headed Woodpeckers seen per BBS route in Minnesota.

reports. Increased numbers of observers complicate interpretation of all these data, and can mask real changes in the numbers and distributions of these species. It is likely that Red-bellied Woodpeckers have extended their range northward in Minnesota in recent decades. For the other species, there certainly is no evidence from these data that their ranges are contracting within the state. In comparison to the other species, reports of Red-headed Woodpeckers have not increased significantly.

Breeding Bird Survey (BBS) data (Sauer *et al.* 2003) indicate that Red-headed Woodpeckers in Minnesota have declined by an average of 4.6% per year over the period of 1967 through 2002. (See Janssen 1980 for a description of BBS methodology and a map of BBS routes in Minnesota). Even more ominous is the decline by an average of 10.1% per year over the period of 1980 through 2002. The probability of the null hypothesis that the regression line has slope zero (that of a stable population) is less than 0.01 for each of these periods. Thus, it is highly likely that the Breeding Bird Surveys are detecting fewer and fewer Red-headed Woodpeckers in Minnesota. From 1967 through 1983, total number and number per route of Red-headed Woodpeckers increased. Thereafter, there has been a precipitous decrease. (Figures 1 and 2).

The methodology of these surveys is such that some species are poorly detected relative to others, and so appear less common than they really are. Woodpeckers evidently vocalize less than most passerines do early in the morning when the routes are surveyed. It may be argued that these surveys do a poor job of detecting woodpeckers in general and of Red-headed Woodpeckers in particular. Red-headed Woodpeckers are vocal birds of semi-open country and feed by sallying from an exposed perch. Thus, Red-headed Woodpeckers probably are more likely to be detected than the more common Downies or Hairies. The average number per route over the period of 1966 through 2002 in Minnesota for Red-headed Woodpeckers is 1.88, Downy Woodpeckers 0.76, Hairy Woodpeckers 0.58, Red-bellied Woodpeckers 0.51, and Pileated Woodpeckers 0.50. So it appears that Breeding Bird Surveys are better able to detect Red-headed Woodpeckers than other more common woodpeckers, and so are likely an appropriate vehicle for detecting changes in Red-headed Woodpeckers breeding numbers. Given that observer skill level should tend to inflate population estimates over time, BBS data clearly indicate major declines in Red-headed Woodpeckers breeding numbers in Minnesota.

The situation over the entire breeding range is also bleak. The early years of the BBS, 1966–1980, were good ones for Red-headed Woodpeckers, with an average 1.66% increase per year. However, over the period 1966 through 2002, the survey-wide population of Red-headed

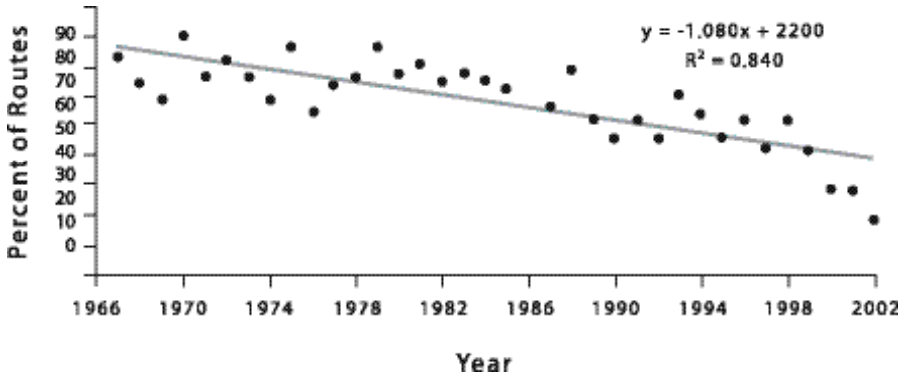

Figure 2. Percent of Minnesota BBS routes reporting Red-headed Woodpeckers.

Woodpeckers declined by an average of 2.5%, and over the period of 1980 through 2002 by an average of 4.5%. Both of these are statistically significant. Significant declines occurred in such states as Wisconsin, Iowa, Michigan, Illinois, and Missouri (Figure 3; adapted from Sauer *et al.* 2003). Maryland was the only state that showed a statistically significant increase over this period. Assuming this 2.5% decline, Red-headed Woodpecker numbers are about 40% of what they were in 1966. Given the 4.5% decline from 1980 to 2002, Red-headed Woodpecker numbers are only about 35% of what they were in 1980.

In contrast, the BBS data indicate significant gains in Minnesota for Downy (4% per year), Hairy (3.3%), and Pileated Woodpeckers (2.3%) for 1967–2002, and for Red-bellied Woodpeckers (5.8%) for 1980–2002.

Red-headed Woodpeckers generally are short distance migrants in the northern portion of their range. The number of Red-headed Woodpeckers overwintering in an area apparently depends on the mast crop available. In Minnesota, Red-headed Woodpecker numbers in winter probably are related to the acorn crop. Thus, independent of any long-term population increases or decreases, the number of Red-headed Woodpeckers overwintering in Minnesota would be expected to vary considerably from year to year. In some winters many would be present, and in others very few. Thus, winter population estimates would be expected to show more variation than summer estimates. Nevertheless, Christmas Bird Count data from 1959 through 1988 in Minnesota show an average decrease of 0.8% per year (Sauer *et al.* 1996), and from 1990 through 2001 a decrease of 3.3% per year.

These three data sets indicate the Red-headed Woodpecker numbers in Minnesota have indeed decreased in recent years, particularly relative to other woodpecker species.

What characteristics of Red-headed Woodpeckers are responsible for this divergence in population trends among woodpecker species? Red-headed Woodpeckers are birds of open woodlands, savannas, parks, golf courses, orchards, and river bottoms (Smith *et al.* 2000 and references therein). During the breeding season, Red-headed Woodpeckers engage in flycatching more than any other eastern woodpecker. The birds typically sally forth from exposed perches after flying insects. They also fly from these perches to the ground after prey. The birds prefer areas with low ground vegetation and scattered trees, affording them an unobstructed view for catching insects on the wing. Red-headed Woodpeckers, along with Pileated and Lewis's woodpeckers

	Summer		Winter	
Species	**Slope**	**Correlation**	**Slope**	**Correlation**
Red-headed Woodpecker	0.049	0.068	-0.031	-0.060
Red-bellied Woodpecker	0.837	0.900	1.063	0.866
Downy Woodpecker	0.989	0.689	0.875	0.800
Hairy Woodpecker	0.695	0.809	0.685	0.739
Pileated Woodpecker	0.711	0.640	0.449	0.646
Northern Flicker	0.873	0.868	0.924	0.855
Blue Jay	1.004	0.833	1.130	0.697

Table 1. Changes in number of Minnesota counties where species were reported (1973–2002) (see text).

(*M. lewis*) and flickers (*Colaptes* spp.), are the only North American woodpeckers that commonly feed on the ground. Red-headed Woodpeckers glean insects from tree trunks and limbs. Unlike most woodpeckers, drilling into wood for insect larvae is done only occasionally (Smith *et al.* 2000).

The birds also require trees in which to construct a nesting cavity, though they can be found far from any trees, using utility poles as perches and nesting substrates. They excavate cavities in dead trees, dead limbs of live trees, or living trunks and limbs. Commonly, the area around the cavity entrance is devoid of bark. This may function in deterring predation by tree-climbing snakes. Cavities generally are excavated where fungi have softened the heartwood. They are attracted to areas where trees have been recently killed or damaged by fire (Niemi 1978), ice storms, floods, or herbicides (Smith *et al.* 2000).

Fires benefit Red-headed Woodpeckers by clearing away low vegetation and killing trees, producing an open habitat more suitable for flycatching. Fires damage trees, making them more susceptible to heart rot, and hence more suitable as nest sites. On the other hand, fires can destroy nest trees.

Red-headed Woodpeckers apparently depend on mast for most of their food in winter. They are one of only four woodpeckers that commonly store food, and the only one that covers the stores with bark or wood slivers (Smith *et al.* 2000). In Minnesota, acorns are the preferred storage item. In good acorn years, many Red-headed Woodpeckers may overwinter in Minnesota. In poor acorn years, few or no birds remain. Mast seems to be crucial to the presence of Red-headed Woodpeckers in winter. Birds from the western portions of the breeding range apparently fly east until they encounter an area with abundant mast, then set up territories. Birds breeding along the Gulf Coast may move northward for winter, presumably in search of mast. Red-headed Woodpeckers may not be truly resident anywhere (Smith *et al.* 2000).

Red-headed Woodpeckers do not drill holes for acorn storage, unlike Acorn Woodpeckers (*M. formicivorus*), but instead wedge them into pre-existing holes or cracks. I have seen them filling old chickadee cavities with acorns, then sealing the entrance hole with bark. Thus, the birds require trees or posts to store mast, though the mast source can be distant from the storage site. Red-headed Woodpeckers defend their stores from conspecifics and Red-bellied Woodpeckers (Ingold 1989).

Blue Jays are the only other Minnesota bird strongly associated with acorn crops, though the extinct Passenger Pigeon (*Ectopistes migratorius*) was highly dependent on mast. Large numbers of Blue Jays winter in Minnesota regardless of mast availability, possibly due in part to use of bird feeders. BBS data indicate that Blue Jays have significantly increased from

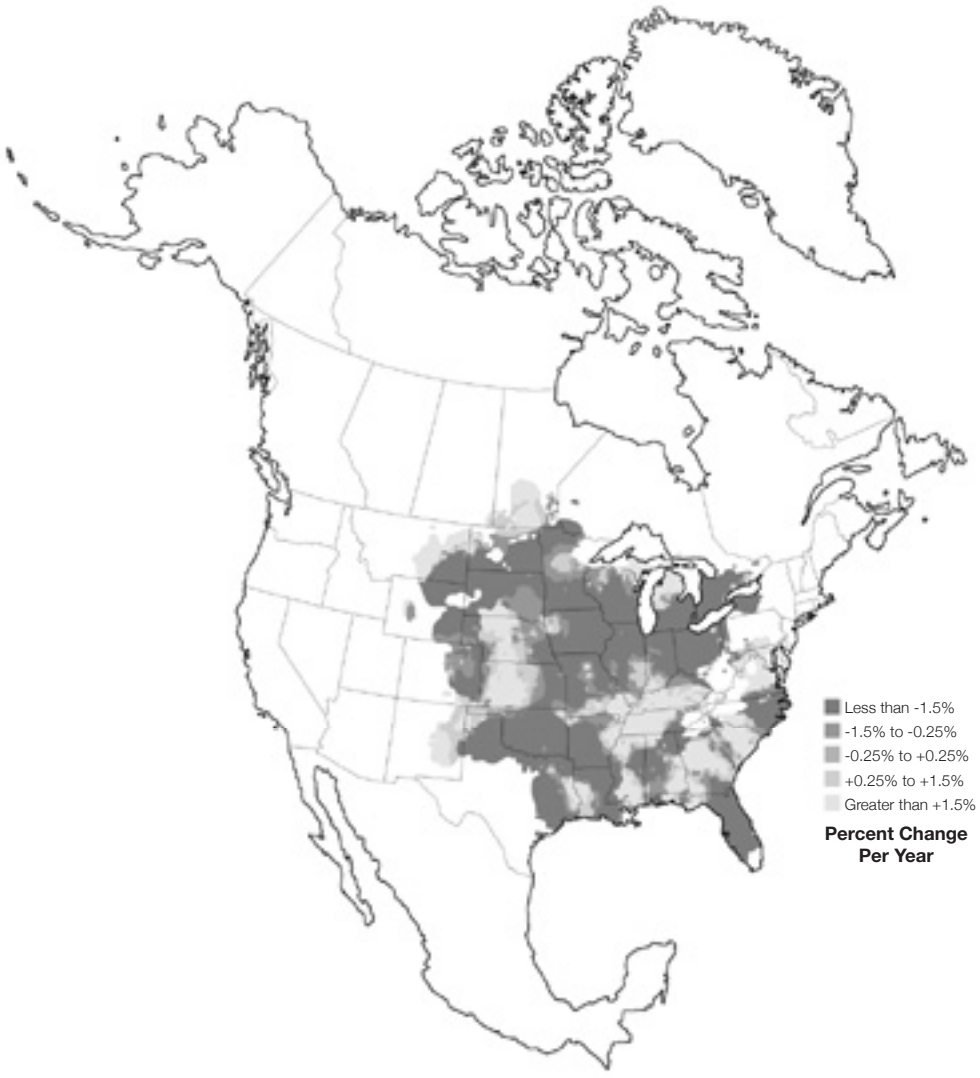

Figure 3. Red-headed Woodpecker population trends, 1966–1996 (adapted from Breeding Bird Survey data). Darkest gray areas depict population declines of greater than 1.5% per year, while lightest gray areas indicate regions of population increases of greater than 1.5% per year.

1967–2002 in Minnesota (1% per year) but show a survey-wide 1% decrease. I was unable to find a significant relationship between the numbers of Red-headed Woodpeckers and Blue Jays found in winter in Minnesota from the "Seasonal Reports" data, but I did find a significant positive correlation using Christmas Count data.

Red-headed Woodpecker populations historically have undergone substantial fluctuations. Red-headed Woodpeckers likely benefited from European settlement. Forests were opened, and the patchwork of small woodlands, farms, and small towns was excellent habitat. The birds were more common in northern and northeastern North America during the eighteenth and nineteenth centuries when beech forests were more extensive. Chestnut blight in the Nineteenth Century and Dutch elm disease in the Twentieth Century killed millions of trees. Red-headed Woodpecker numbers showed large though ephemeral increases in areas where trees were dying. For example, in southern Illinois, breeding populations increased 25-fold and wintering populations increased 58-fold following introduction of Dutch elm disease. Yet from 1909 to 1957, the Illinois breeding population decreased from an estimated 1,270,000 to 115,000 (Smith *et al.* 2000).

Red-headed Woodpecker populations likely rebounded following the banning of DDT. Farmstead abandonment probably initially resulted in improved Red-headed Woodpecker habitat, but reforestation and fire suppression have resulted in habitat reduction. Local Red-headed Woodpecker populations probably always have fluctuated substantially.

BBS data indicate increasing population trends for most cavity nesting birds in Minnesota. Only Red-headed Woodpeckers, Northern Flickers, Purple Martins (*Progne subis*), and American Kestrels (*Falco sparverius*) show significant decreasing trends.

Like Red-headed Woodpeckers, Northern Flickers appear to be decreasing in numbers. In contrast to Downy, Hairy, Pileated, and Red-bellied woodpeckers, Northern Flickers have shown significant BBS decreases from 1966–2002 (-2.6% per year) in Minnesota and survey-wide (-2.0% per year). Christmas Bird Count data from 1959–1988 show a statistically significant decrease in Minnesota (-2.5% per year) and survey-wide (-1.2% per year). In this they parallel Red-headed Woodpeckers. Northern Flickers have a wider range and evidently higher populations than Red-headed Woodpeckers, and so are less of a conservation concern. Like Red-headed Woodpeckers, they are birds of open woodlands, feed extensively on the ground (primarily on ants), and consume considerable plant material in winter.

It is tempting to seek a common explanation for the decreases in these two "atypical woodpeckers". Competition with European Starlings (*Sturnus vulgaris*) for nest cavities and decreased availability of snags, dead limbs, and trees with heart rot are thought to limit Northern Flicker population density (Moore 1995). Even when starlings usurp a flicker nest cavity, the birds generally can successfully renest, so the importance of starling competition in flicker population decline is uncertain.

Red-headed Woodpeckers were more likely than Red-bellied Woodpeckers to nest in long-dead trees in South Carolina (Kilham 1977). However, Northern Flickers and Red-headed and Downy woodpeckers were equally likely to nest in live versus dead trees in Wyoming (Gutzwiller and Anderson 1987). If Red-headed Woodpeckers and flickers are more dependent on dead trees and limbs for nest and roost sites than other woodpeckers, removal of snags and dead limbs could account for their decline relative to other woodpeckers.

Flickers and Red-headed Woodpeckers obtain a smaller proportion of their food by drilling into wood than do the other woodpeckers. This suggests that food availability is a factor in their decreased numbers.

Collisions with motor vehicles and competition for nest sties with starlings are two oft-cited reasons for decline in

Red-headed Woodpecker numbers. Red-headed Woodpeckers may be killed by collisions with motor vehicles as often as any bird. Flycatching, fondness for open country, utility poles, feeding on the ground, and scavenging insects killed on roadways make them especially vulnerable to traffic (Smith *et al.* 2000).

Starlings frequently attempt to evict Red-headed or Red-bellied woodpeckers from their newly excavated cavities. Red-headed Woodpeckers are dominant to both starlings and Red-bellieds, and are generally successful in defending their nesting cavities from either species. Even when starlings succeed in usurping a Red-headed Woodpecker nesting cavity, the woodpeckers generally still have enough time to excavate a second cavity and successfully raise a brood (Ingold 1989). Declines in Red-headed Woodpecker populations preceded introduction of motor vehicles and starlings, so these are unlikely to account for much of the observed population decreases (Smith *et al.* 2000).

Conclusions

In summary, habitat loss, reforestation, fire suppression, removal of dead trees and limbs, monoculture agriculture, extirpation of chestnuts, clear-cutting, introduction of starlings, and vehicle collisions have contributed to Red-headed Woodpecker declining numbers (Smith *et al.* 2000).

Ideal Red-headed Woodpecker habitat would consist of scattered dead, dying, and healthy trees with scanty ground vegetation adjacent to fields, marshes, or bodies of water producing abundant flying insects. In addition, at least some of the trees should produce mast. Absence of starlings and proximity to bird feeders also would be desirable.

The population ups and downs of Red-headed Woodpeckers over the centuries make the current declines difficult to assess. The birds may come back all by themselves or intervention may be needed, should the current population trends continue.

Conservation of Red-headed Woodpeckers in Minnesota may not present profound difficulties. For example, controlled burns on a one or two year cycle in a 60ha plot at the Cedar Creek Natural History Area in Anoka County have reduced the number of live northern pin oaks, producing excellent Red-headed Woodpecker breeding and winter habitat.

Red-headed Woodpeckers will use artificial cavities and nest boxes for nesting, roosting, and acorn storage. The birds habituate well to humans and come readily to feeders for sunflower seeds, popcorn, etc. Periodic controlled burns of oak woodlots and preservation of dead trees and limbs should be effective in improving nesting habitat.

Acknowledgments

I would like to thank the thousands of individuals who have participated in Breeding Birds Surveys or Christmas Birds Counts or who have submitted records to the "Seasonal Reports" section of ***The Loon***, and to the individuals who have compiled and analyzed these data. Thanks also to Anthony Hertzel for producing Figures 1–3.

Literature Cited

Gutzwiller, K. J. and S. H. Anderson. 1987. Multiscale association between cavity-nesting birds and features of Wyoming streamside woodlands. *Condor* 89:534–548.

Ingold, D. J. 1989. Nesting phenology and competition for nest sites among Red-headed and Red-bellied Woodpeckers and European Starlings. *Auk* 106:208–217.

Janssen, R. B. 1987. Birds in Minnesota. University of Minnesota. Minneapolis.

Janssen, R. B. 2000. The Western Meadowlark in Minnesota. ***The Loon*** 72:127–132.

Kilham, L. 1977. Nest-site differences between Red-headed and Red-bellied woodpeckers in South Carolina. *Wilson Bulletin* 89:164–165.

Moore, W. S. 1995. Northern Flicker (*Colaptes auratus*). *In* The Birds of North America, No. 166. (A. Poole and F. Gill,

eds.). The Birds of North America, Inc. Philadelphia, PA.
Niemi, G. J. 1978. Breeding birds of burned and unburned areas in northern Minnesota. ***The Loon*** 50:73–84.
Sauer, J. R., J. E. Hines, and J. Fallon. 2003. The North American Breeding Bird Survey, Results and Analysis 1966–2002. Version 2003.1, USGS Patuxent Wildlife Research Center, Laurel, MD.
Sauer, J. R., S. Schwartz, and B. Hoover. 1996. *The Christmas Bird Count Home Page*. Version 95.1. Patuxent Wildlife Research Center, Laurel, MD.
Smith, K. G., J. H. Withgott, and P. G. Rodewald. 2000. Red-headed Woodpecker (*Melanerpes erythrocephalus*). *In* The Birds of North America, No. 518. (A. Poole and F. Gill, eds.). The Birds of North America, Inc. Philadelphia, PA.

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Merlins Nesting in the Twin Cities
2001 and 2002

Matthew J. Solensky

In 2000, I documented the first known breeding pairs of Merlins (*Falco columbarius*) in the Twin Cities area (***The Loon*** 72:72–75). Since then, the breeding population has grown and pairs have been found in both Minneapolis and St. Paul. Productivity in each year has been from 2–4.5 young fledged/nest attemp, which is similar to areas where the population is known to be stable or expanding (Sodhi *et al.* 1993). Juvenile birds were found breeding in 2001 and 2002, while some adults returned to the same general area to breed in successive years. The sub-specific make-up of the population is unclear, but appears to be a mix of "Richardson's" Merlins (*F. c. richardsonii*), "Taiga" Merlins (*F. c. columbarius*) and an integration of the two.

Methods

I located breeding birds by playing a recording of a Merlin call from a compact disc player at randomly selected locations, searched sites where pairs had previously bred, and checked sites where birds were reported by the general public. Once a pair was found, I monitored them by attending the area for up to several hours to determine the breeding status of the birds, read bands, locate nests and evaluate nesting success. I attended the sites at least twice a week, but usually three times. When possible, unbanded adults and nestlings were banded. All banded birds received a standard silver U.S. Fish and Wildlife Service (USFWS) band on one leg and a green, uniquely coded band on the other. The green bands have alphanumeric codes which are engraved three times, increasing the observer's ability to read the code at nearly any angle. Adults were captured in mist nets with a live permanently disabled Great Horned Owl (*Bubo virginianus*) as a lure. Nestlings were taken from the nest, banded, and returned within 15 minutes. A nest was considered successful and the young fledged when the young were capable of sustained, powered flight.

Breeding 2001

North Minneapolis — I first located this pair on 10 March approximately 1.5 blocks from a nest site used in 2000. I read the green color bands that I had put on both birds the previous year and determined that they were the same individuals that had successfully bred at this location. During my first visit to the area the male brought food to the female, but they did not copulate as they usually do early in the mating season. Through careful and frequent observations I was able to determine that incubation began around 1 May, and I saw nestlings being fed for the first time on 12 June. Four young fledged from the nest by 1 July. The nest appeared to be that of an American Crow (*Corvus brachyrhynchos*) and was located near the top of a large white pine.

Columbia Heights — I located this pair on 22 March. Initially, I saw a male with a single silver USFWS band that indicated that he was the same bird from the previous year at this site. The female was unbanded in 2000 and the female observed in 2001 was also unbanded. On 30 April I observed a different, brown-backed (second-year (SY)) male at the territory with the female. The banded adult male was absent and never seen again. The second-year male copulated with the female and brought her food while I was present. The nest was an old American Crow nest located in a tall white spruce and incubation began by 7 May. Between 15–20 May the nest was raided and the eggs were eaten. Eggshells were found beneath the nest tree by the landowner. From his observations and the way the eggs had been pecked open, the predators were likely American Crows. On 20 June I found the pair re-nesting again in a tall white spruce about six blocks from the original site. At this time they were already into the incubation period. I first observed a nestling on 9 July and the lone chick ultimately fledged by 27 July.

St. Anthony — Doug Weatherhead and Monica Lewis first observed this pair on 15 April. Doug and Monica posted their observation on the MOU listservice and I immediately investigated the sighting. The female was banded with a single silver USFWS band indicating that she was a former falconry bird flown by Lori Arent since 1998 and released on 10 March, 2001. She was paired with an unbanded adult male. On 30 April the pair was observed one block from the initial site. They selected an old American Crow nest in a white spruce and started incubating in late May. Three, 1–2 day old chicks were found dead on the ground near the nest tree on 20 June. One was directly beneath the nest tree and the other two were across the street. The chicks had not been eaten and did not show any signs of handling by a predator. Why the birds had been taken from the nest and by whom remains a mystery. Ultimately, the pair was not successful in fledging young.

Diamond Lake — Paul Budde first observed this pair on 3 July and reported his observation to me and on the MOU listservice. I visited the site on 5 July and saw that the female was banded with a silver USFWS band on one leg and a green band on the other. The bands identified her as a fledgling that was found on the ground in north Minneapolis in 2000 and subsequently brought to The Raptor Center. In 2000, she was held for three days while her wing healed, then was banded and returned to the nest area to be raised by her parents.

The banded SY female was paired with an unbanded adult. The pair was using an old American Crow nest in a tall white spruce. With a spotting scope I could see three large chicks that had about 75% of their flight feathers. Using an aging key developed by Doolittle (1992) I estimated the age of the chicks to be about 24 days. All three chicks successfully fledged from the nest by 15 July.

Breeding 2002

North Minneapolis — I relocated this pair on 16 March in the immediate vicinity of their 2001 (also 2000) nest site. Both were the same individuals that had been present during each of the two previous breeding seasons. On 7 and 12 April, I

observed a third Merlin, a female, in the territory. On both occasions each of the banded adults violently chased the intruder from the area. Occasionally, the pair would work together to drive her from the area, but usually it was one bird constantly harassing her. There was always a great deal of calling between the residents and the trespasser. I first observed the resident female in an incubating posture on 11 May. They had moved about eight blocks from where I previously had seen them, which was likely within the same home range (Sodhi *et al.* 1993). I first observed nestlings on 8 June while the female fed several very small chicks for about 15 minutes. Although I could barely see the chicks, they must have been small because the female needed to reach down into the bowl of the nest to give them the food. Three young fledged from the nest by 1 July.

Columbia Heights — I found this pair on 17 March near the 2001 site. When I arrived both adults were flying around and calling. The male had prey but would not relinquish it to the female despite her persistent begging and attempts to grab the food. The male at this territory in 2001 was not banded and neither was the adult I observed in 2002. However, the female was banded in 2001 and the bands on this female indicated that this was the same bird. I saw the male with an unbanded female on 7 and 12 April, but the banded female was absent. The pair copulated on both occasions. On 16 April the unbanded male was again with the banded female, and they copulated and continued pair bonding with food exchanges and calling. I confirmed that the birds had eggs and were incubating on 11 May, when I saw the female in the nest in an incubating posture. I saw her stand up, lean into the nest and turn the eggs. She then immediately got into the nest and adjusted herself on the eggs. No birds were present on 1 June, so I climbed the nest tree to investigate and found a few pieces of broken Merlin egg. I could not find any evidence of what type of predator may have eaten the eggs. Neither adult was seen again.

Diamond Lake — The banded pair from 2001 and a second unbanded female were present on 13 March near the 2001 nest site. I did not see the pair interact with the second female, and she was not seen again after this date. The pair remained in the area for several weeks and I presumed that they would nest in this area again. However, after being on a show on Minnesota Public Radio, Carrol Henderson received an e-mail from Joel Marty, a resident in south Minneapolis who believed that he had seen and heard Merlins in his neighborhood. Carrol passed the information on to me and I investigated. On 17 April I found this pair about one-half mile north of where they had been previously. While I was watching them, the female vigorously defended the area from several American Crows and the male chased away an unbanded SY male Merlin. An unbanded SY male was seen again on 11 May, but this time the banded adult male was absent. Aside from two or three blue feathers on his back, the unbanded SY male was completely brown. I watched the pair for 40 minutes and saw several copulations and prey exchanges; the banded male had apparently been ousted from the territory. The first time the female appeared to be incubating was on 1 June. I observed very small chicks being fed by the female on 28 June. During the feeding I could hear the female "chup" while she was pulling the prey apart and leaning into the nest to feed the nestlings. An adult gives the "chup" call during a feeding when the chicks are very young to get their attention. Four young successfully fledged by 20 July.

Edina — John and Pat Dill identified this pair and contacted me. I responded immediately and on 8 June observed that neither adult was banded and that they had small nestlings. On 29 June I observed five chicks that were almost completely feathered out and exploring the outer edges of the top portion of their nest tree. All of the chicks were very vocal and alert and by 4 July each had taken its first flight.

St. Paul — In mid July, Lori Arent from The Raptor Center received a call from a resident in St. Paul asking about nesting Merlins. Lori investigated and found several fledglings flying around a neighborhood near Grand Ave. Lori reported her observations to me and I went to the area. I observed four youngsters, which, based on size, were likely two males and two females. I did not observe either adult, but their absence is normal at this stage as they spend little time in the nest area once the young are able to fly.

A sixth pair, reported to me by Teresa Thews, likely nested near Macalester College, but I could not confirm the nesting since I was alerted to their presence late in breeding season and never saw any birds at the site.

Nesting Habitat and Timing

Nest sites in the Twin Cities shared several similarities in habitat. In each case, the immediate vicinity (100m radius) of the nest tree was dominated by residential human inhabitance. The nest trees were all conifers, mostly spruce (one white pine was also used). The average height of the nest trees was 10–14m and the nests were located in the top ten percent (1–2m) of the tree. However, one nest in a 21m white pine was 13m high. Based on size and location, nests were all old American Crow nests (Harrison 1998).

The earliest that I observed Merlins in the Twin Cities was 10 March. However, reports from residents and circumstantial evidence in the nest area suggest the birds may have been present for up to a month prior to my earliest observation. At most nests, eggs were laid (and subsequently incubation started) in early-mid May and hatching occurred from early-mid June. Laying and hatching dates are based on observations and by calculating known incubation times with estimated ages of nestlings (Temple 1972, Picozzi 1983, Oliphant and Tessaro 1985, and Doolittle 1992). Nestlings began to leave the nests to venture onto branches in late June and usually made their first flights by early July. Fledglings were seen in the area of the nest tree for up to three weeks following the first flights and then generally dispersed from the area.

Subspecies

In 2000, I reported that the two males that nested were "Richardson's" Merlins and that both females appeared to be "Taiga" Merlins (***The Loon*** 72:72–75). Upon further examination of these birds in subsequent years, extensive review of subspecies descriptions and consultation with individuals more familiar with the plumage of "Richardson's" Merlins, I believe that the males were certainly "Richardson's" Merlins, and that the females were progeny of integration of the two subspecies. Both males were nearly identical to the descriptions in Clark and Wheeler (1987), Wheeler and Clark (1995), and Sibley (2000) for adult male "Richardson's" Merlins. However, the females had features that were in between the two subspecies, the most notable difference being the coloration of their backs. The females in the Twin Cities were darker than typical "Richardson's" Merlins but were clearly lighter than the "Taiga" Merlins usually found in the Upper Midwest. The other individuals observed breeding in the Twin Cities since 2000 also appeared to be either "Richardson's" Merlins (n=8) or progeny of integration (n=3). The only exception was the former falconry bird, a "Taiga" Merlin that was noticeably darker than the rest and was caught as a hatching-year bird on the north shore of Lake Superior in the fall of 1998. Overall, the coloration of the Merlins breeding in the Twin Cities is lighter than those found in the northern wooded areas of Minnesota.

The increase in the number of detected breeding pairs from year to year may be a result of my effort looking for the birds, greater awareness by the birding community and general public, or real population growth. Since no surveys for breeding Merlins had been done in the Twin Cities previously, it is impossible to know how many pairs existed and how long they had been breeding within the

area. The return of individuals and even pairs to breed gives evidence of the population's stability. One-year-old birds and birds banded as nestlings and now breeding suggests that the population is young but growing. Sodhi *et al.* (1993) found that most Merlins breed at two years of age at the earliest. They also determined that in Saskatoon, Saskatchewan, Canada, where the Merlin population is very densely populated, the average earliest age for breeding is 2.8 and 3.2 years old for males and females, respectively. From 1987–1992, 11% (n=20) of the Peregrine Falcons (*Falco peregrinus*) breeding in the Midwest were juvenile birds (Tordoff *et al.* 2002). Since that period, the number of breeding juvenile birds has consistently decreased to only 1% (n=3) in the population (Tordoff *et al.* 2002). This trend indicates that as the population increased, from 188 in 1987–1992 to 254 in 2002 that the juveniles were surviving but unable to breed. The abundance of nest sites provided by American Crow nests and the seemingly inexhaustible number of prey, e.g. House Sparrows (*Passer domesticus*), and other small to medium-sized birds likely creates a scenario where dozens of pairs of Merlins may eventually breed. Surveys of the Twin Cities to track the growth of the Merlin population will be important over the next several years. It would also be interesting to determine if Merlins are breeding in the area between the Twin Cities and northwestern Minnesota where Peder Svingen has found them nesting (***The Loon*** 72:66–72).

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Literature Cited

Clark, W. S., and B. K. Wheeler. 1987. A Field Guide to the Hawks of North America. Houghton Mifflin, Boston, MA.

Doolittle, T. C. J. 1992. Status of the Eastern Taiga Merlin *Falco c. columbarius* in the Upper Midwest. M. Sc. Thesis. UW-Eau Claire, Eau Claire, WI.

Harrison, H. H. 1998. A Field Guide to the Birds' nests: United States East of the Mississippi River. Houghton Mifflin, Boston, MA.

Oliphant, L. W., and S. V. Tessaro. 1985. Growth rates and food consumption of hand-raised Merlins. *Raptor Research* 19:79–84.

Picozzi, N. 1983. Growth and sex of nestling Merlins in Orkney. *Ibis* 125:373–382.

Sibley, D.A. 2000. The Sibley Guide to Birds. Knopf, New York, NY.

Sodhi, N. S., L. W. Oliphant, P. C. James, and I. G. Warkentin. 1993. The birds of North America, No. 44: Merlin. The Academy of Natural Sciences of Philadelphia, Philadelphia, PA.

Solensky, M. J. 2000. Merlins nesting in Minneapolis. ***The Loon*** 72:72–75.

Svingen, P. H. 2000. First Minnesota breeding record of the Richardson's Merlin. ***The Loon*** 72:66–72.

Temple, S. A. 1972. Sex and age characteristics of North American Merlins. *Bird-Banding* 43:191–196.

Tordoff, H. B., M. S. Martell, and J. S. Castrale. 2002. Midwest Peregrine Falcon Restoration, 2002 Report.

Wheeler, B. K., and W. S. Clark. 1995. A Photographic Guide to North American Raptors. Academic Press.

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The Winter Season
1 December 2002 – 28 February 2003

Karl J. Bardon

A relatively uneventful season. Few waterbirds lingered compared to past winters, and virtually no early migration was noted in February. Northern owls and winter finches were scarce. The only Casual or Accidental species were Band-tailed Pigeon, Eurasian Collared-Dove, and Barrow's Goldeneye. A first winter record of Northern Waterthrush highlighted a good season for half-hardy passerines, especially among the sparrows.

December and January statewide average temperatures were above normal (by 7.7 and 2.5 degrees F, respectively), while February temperatures were below normal (by 4.7°F). Precipitation was below normal statewide (by .20 to .64 inches) throughout the winter, and the period November–January was the driest ever in the Twin Cities. A storm on 2–3 February brought the first significant precipitation to southern Minnesota since October, including 10–12 inches of snow in a line from Montevideo to Anoka County. A ground blizzard on 11 February in southern and western Minnesota brought only 1–3 inches of snow, but wind gusts of up to 63 mph (at Windom). Below normal temperatures and lack of snow cover late in the season resulted in the lowest frost depths in ten years, and by 6 March Lake Superior was 90% ice-covered. A "January thaw" on the 7th and 8th brought record high temperatures throughout the state (maximum 60°F at Fairmont), and many ice-fishing houses fell through the ice in southern Minnesota.

Compared to previous winters, few waterbirds lingered into the season. Exceptions included two **Great Egret** reports from the Twin Cities, a mid-winter **Greater White-fronted Goose** in Martin County, **Ross's Geese** in Meeker, Martin, and Kandiyohi counties, and both a **Greater Scaup** and a **White-winged Scoter** in Duluth. The Department of Natural Resources' mid-winter waterfowl survey tallied a record number of **Canada Geese** (111,200) at Lac Qui Parle Wildlife Management Area on 16 January, nearly double the previous high of 60,000 in 1998.

As the number of wintering **Trumpeter Swans** continues to increase, so do the number of **Tundra Swans**; up to six Tundra Swans were recorded with the Trumpeters at Monticello. A male **Northern Pintail** overwintered at Duluth and a female **Greater Scaup** overwintered at the Blue Lake wastewater treatment plant, Scott County. A female **Barrow's Goldeneye** showed up with the wintering flock of Common Goldeneyes along the Otter Tail River in Fergus Falls, a location where this species has occurred several times previously. **Harlequin Ducks** spent the latter half of the winter in Two Harbors, with a maximum of five females and one male seen.

Although good numbers of raptors were reported statewide, interesting sightings were limited to an adult male **Gyrfalcon** seen sporadically in the Duluth harbor, and a single **Prairie Falcon** in Wilkin County. Northern forest owls were scarce; of particular note, no **Snowy Owls** were reported from the Duluth harbor this winter for the first time in anyone's memory.

The alternate adult **Franklin's Gull** which lingered record late along the confluence of the Mississippi and St. Croix rivers was in the wrong hemisphere and the wrong plumage. Several recent January sightings of Franklin's Gulls from neighboring states have also been of adults in alternate plumage, including Michigan in 2001 and South Dakota in 2003. An adult **Iceland Gull** seen once in Duluth was probably the same bird wintering at the Superior, Wisconsin landfill,

while a first-winter Iceland Gull lingering in Dakota County was followed on 6 January from foraging locations at Point Douglas, Washington County and Pine Bend, Dakota County to its roost at Black Dog Lake (a distance of 23 miles).

The state's ninth **Band-tailed Pigeon** overwintered at a feeder in Ravenna Township, Dakota County. **Eurasian Collared-Doves** have apparently become permanent residents in southwestern Minnesota, but they continue to be inadequately documented. Although only two **Three-toed Woodpeckers** were reported from one location, a record-high number of **Black-backed Woodpeckers** was found. A well-documented overwintering **Yellow-bellied Sapsucker** in St. Louis County was among an above average number of reports of this species.

Many half-hardy passerines lingered in record numbers, including **Winter Wren**, **Eastern Bluebird**, **Hermit Thrush**, **Harris's Sparrow**, **Fox Sparrow,** and **Swamp Sparrow**. Add to this listing single reports of **Chipping**, **Lincoln's** and **Vesper sparrows**, three reports of **Field Sparrow**, and five reports of **White-crowned Sparrow**, and it becomes clear that this season was the winter of the sparrow.

Northern Waterthrush became the thirteenth species of warbler recorded in Minnesota in winter when the state's first winter waterthrush was found at Whitewater State Park in December. A **Ruby-crowned Kinglet** was well-documented from Ramsey County, a **Yellow-headed Blackbird** was found in mid-winter in Beltrami County, and two male **Baltimore Orioles** overwintered in northern Minnesota (one was unable to fly).

Except for excellent numbers of **White-winged Crossbills**, numbers of "winter" finches were poor at best. There were no reports of **Hoary Redpoll**, and only two reports of **Common Redpoll** from the south.

This report summarizes 152 species found by over 116 observers. The many additional observers who participated in the 61 CBCs and/or reported birds only to MOU-net and MNBird are not listed here, but their contributions are nevertheless greatly appreciated. My thanks to Roger Schroeder for coordinating and compiling the CBCs, to Jeanie Joppru, Dave Benson, and Anthony Hertzel for compiling sightings from the state's three rare bird alerts, to Paul Budde for providing a summary of sightings submitted electronically, and to Peder Svingen for reviewing the manuscript. — **13073 Hastings St. NE, Blaine, MN 55449.**

KEY TO THE *SEASONAL REPORT*

1. Upper case (**LEAST TERN**) indicates a Casual or Accidental species in the state.
2. Dates listed in bold (**10/9**) indicate an occurrence either earlier, later, or within the three earliest or latest dates on file.
3. Counties listed in bold (**Aitkin**) indicate an unusual occurrence for that county.
4. Counties with an underline (**Becker**) indicate a first county record.
5. Counties listed in italics (*Crow Wing*) indicate a first county breeding record.
6. Brackets [ ] indicate a species for which there is reasonable doubt as to its origin or wildness.
7. Counts listed in bold (**150**) indicate a total within or exceeding the top three high counts for that species.
8. Dagger "†" preceding observer's initials denotes documentation was submitted.
9. Species documented with a photograph are denoted with "ph".
10. Species documented with a digital photograph or video tape are denoted with "v.t."

The *Seasonal Report* is a compilation of seasonal bird sightings from throughout Minnesota. We particularly invite reports from parts of the state that have been neglected or covered lightly in past reports. To become a contributor, request a report form from the Editor of the *Seasonal Report*, Peder H. Svingen, 2602 E. 4th St., Duluth, MN 55812–1533.

Common Loon — Late north 12/8 Lake (Two Harbors) JWL. Late south 12/14 St. Paul (North) CBC. Only reports.

Pied-billed Grebe — Late north **1/4** Battle Lake CBC. Late south 12/14 St. Paul (North) CBC, 12/14 Willmar CBC, 12/15 Dakota CRM, 1/1 Hennepin (Minneapolis) SLC. All reports.

Horned Grebe — Reported 12/8 (one) and 2/17–18 (three) Lake (Two Harbors) JWL, CRM.

Double-crested Cormorant — Reported on the Excelsior (4) and Rochester (count week) CBCs. Also reported through 1/20 Dakota (Black Dog Lake) PEJ.

Great Blue Heron — Reported from 7 north and 19 south counties. Late north 1/4 Pine CRG, 1/13 St. Louis (near Virginia) *fide* DRB. Overwintered south in Hennepin, Dakota, Ramsey and Winona counties. Maximum count 17 on 1/25 Ramsey (Pigs Eye Lake outlet into Mississippi River) KJB. Potential early migrant 2/20 Stearns STW.

Great Egret — Reported **12/14** Excelsior †CBC and **12/15** Bloomington CBC (count week). Only three previous winter records.

Greater White-fronted Goose — Only report 1/8 Martin (Fox Lake) BRB.

Snow Goose — Reported from 12 south counties through 1/18 Anoka BRL, 1/25 Meeker DMF, 2/1 Blue Earth RBJ. Only north reports on the Fergus Falls CBC (count week) and 2/4 Otter Tail DST (same bird?).

Ross's Goose — Reported 12/14 Willmar CBC, 1/5 Meeker (2 at Lake Ripley) DMF, and 12/15–1/8 Martin (maximum two at Lake George) †BRB, †BSm.

Canada Goose — Reported from 13 north and 27 south counties. Maxima were 12/21 Lac Qui Parle CBC (111,800) and the mid-winter waterfowl survey 1/16 Lac Qui Parle (111,200) DTr.

Mute Swan — Reported 12/5 Dakota ADS, 1/4 Monticello †CBC, 1/6 Wright JJS, 2/2 Rice (Cannon River) DAB, 2/23 Rice (Sakatah Lake) DAB.

Trumpeter Swan — Reported from six north and eight south counties. Maximum counts at two traditional wintering concentrations were 12/8 Otter Tail (575) SPM and 1/24 Wright (700) KJB. Only additional reports after early January were 1/26 Freeborn AEB, late January Becker (2 at Tamarac NWR) *fide* JMJ, and 2/24 Cass (10) MRN.

Tundra Swan — Reported from six south counties Overwintered at Monticello, Sherburne and Wright counties (maximum 5) m.ob. An injured bird also overwintered at Gun Club Lake, Dakota Co. PEJ, DFN. Only additional report after early January was 1/26–2/8 Blue Earth (Lake Crystal) DDM, RBJ, ChH.

Wood Duck — Reported from seven south counties including overwintering in Dakota and Scott, and February reports in Waseca, Mower and Houston. Only north reports 12/14 Fargo-Moorhead CBC (2) and 1/4 Battle Lake CBC (1).

Gadwall — Reported from seven south counties including overwintering in Dakota, Scott and Winona. Only north report 1/1 Clay (2) GEN.

American Wigeon — Only observations: 12/14 Albert Lea CBC (1), 1/4 Dakota ADS, TAT, and 1/8 Olmsted PWP.

American Black Duck — Reported from 17 south counties plus Hubbard, St. Louis, Lake and Cook in the north.

Mallard — Reported from 43 counties throughout the state.

Northern Shoveler — Presumably same bird reported 12/14 Excelsior CBC, then

Five Harlequin Ducks, 2 February 2003, Two Harbors, Lake County. Photo by Chris Wood.

1/4 Scott RMD. Another was found 12/28 Hastings CBC. Also reported from Waseca 12/16 JEZ, 12/27 JPS, and 2/16 JPS (4).

Northern Pintail — Reported from three north and eight south counties. Overwintered in St. Louis (Duluth) ph. PHS, m.ob., Dakota and Scott. Also reported 1/20 Cook JWL. All additional reports were prior to 1/6.

Green-winged Teal — Reported from four south counties including overwintering in Dakota (maximum 35, PEJ) and Scott. Only additional report after December was 2/2–27 Winona (2 females) JBD.

Canvasback — All reports: 12/21–27 Meeker DMF, 1/1 Dakota SWe, and 12/14 LaCrosse-LaCrescent CBC.

Redhead — All reports: 12/14 Fergus Falls CBC, 12/14–15 Meeker DMF, 12/28 (2) & 2/16 Waseca JPS.

Ring-necked Duck — Reported from seven south counties, including overwintering in Scott (maximum 13 at Blue Lake wastewater treatment plant) and Dakota PEJ. Other reports after early January included 2/1 Blue Earth RBJ, 2/15 Olmsted DB, and 2/16 Waseca JPS but overwintering status at these locations unknown.

Greater Scaup — Late north **12/30** St. Louis (Duluth) PHS. Adult female overwintered at Blue Lake wastewater treatment

plant, Scott Co. m.ob. Early south 2/21–26 Winona (2 males) JBD. All reports.

Lesser Scaup — Reported from eight south counties but only Otter Tail in the north. Overwintered in Scott; the only additional reports after early January were 2/1–8 Blue Earth (Lake Crystal) RBJ and 2/23–26 Winona JBD.

Harlequin Duck — All reports from Two Harbors, Lake Co. where one female was initially seen 1/19 PHS, JWL, then five females 2/2–8 PHS *et al*., one male 2/17–19 JWL, and four females 2/12–23 JWL.

White-winged Scoter — Only report: 12/19–1/5 St. Louis (one at Duluth) MCA, GN, m.ob.

Long-tailed Duck — Reported from Cook Co. as usual. All additional reports: 12/14 Duluth CBC, 12/23–1/6 Dakota (adult male on Mississippi River across from Prescott, Wisconsin) KJB, SLC *et al*., 12/26 St. Paul (NE Suburban) †CBC, and 12/28–1/4 Dakota (immature male at Spring Lake) †SWe, ADS, TAT.

Bufflehead — Overwintered in Scott, St. Louis and Lake. Also reported 12/1–1/25 Meeker DMF, 12/14 Fargo-Moorhead CBC, 12/14 St. Paul (North) CBC, and 1/4 Battle Lake CBC.

Common Goldeneye — Reported from 8 north and 19 south counties.

BARROW'S GOLDENEYE — Female reported 1/30–2/28+ Otter Tail (Fergus Falls) †SPM, †PHS *et al*.

Hooded Merganser — Reported from 5 north and 11 south counties with overwintering in Wadena, St. Louis, Otter Tail, Hennepin, Dakota and Scott.

Common Merganser — Reported from 6 north and 21 south counties including ovewintering as far northwest as Pennington. Maximum reported number 12/6 Wabasha (3,500 at Read's Landing) FZL.

Red-breasted Merganser — Reported from Lake and Cook counties, plus 1/4 Northern Wright Co. CBC, and 12/31–1/6 Washington and Dakota (along confluence of Mississippi and St. Croix Rivers) KJB, TAT, PCC.

Ruddy Duck — Only reports: 12/5 Olmsted PWP and 12/14 Excelsior CBC.

Bald Eagle — Reported from 20 north and 31 south counties.

Northern Harrier — Maximum 35 individuals reported from 6 north and 13 south counties in all regions except the Southwest and Northwest. Reported throughout the season.

Sharp-shinned Hawk — Maximum 70 individuals reported from 8 north and 22 south counties throughout the state and season.

Cooper's Hawk — Maximum 54 individuals reported from 22 south counties throughout the season. Two north reports (1/18 St. Louis and 2/20 Todd) omitted due to lack of adequate details.

Northern Goshawk — Maximum 40 individuals reported from 12 north and 5 south counties.

Red-shouldered Hawk — Maximum 21 individuals reported from eight southeastern counties.

Red-tailed Hawk — Reported from 48 counties throughout the state

Rough-legged Hawk — Maximum 190 individuals reported from 16 north and 25 south counties throughout the state and season. Maximum reported number 1/4 Rice Lake NWR CBC (24).

Golden Eagle — Maximum 26 individuals reported from 11 counties.

American Kestrel — Reported from 6 north and 34 south counties throughout.

Merlin — maximum 30 individuals reported from 3 north and 13 south counties in all regions except the West-central and North-central. Five reports of Richardson's race, all in the south.

Gyrfalcon — Adult male reported 1/19 St. Louis (Duluth) MDE with additional sightings of presumably the same bird 2/5 and 2/28.

Peregrine Falcon — Reported from St. Louis, Hennepin, Ramsey and Dakota counties.

Prairie Falcon — Only report 2/25 Wilkin (county roads 3 & 30) CRM.

Gray Partridge — Reported from Cottonwood, Meeker, Dakota, Steele and Freeborn counties.

Ring-necked Pheasant — Reported from 42 counties as far north as Becker and St. Louis.

Ruffed Grouse — Reported from 26 counties in range.

Spruce Grouse — Many reports from Lake County, plus 12/30 Lake of the Woods (3) MHK and 2/14 St. Louis (T65N, R14W) SES.

Sharp-tailed Grouse — Reported from seven counties in range.

Greater Prairie-Chicken — Reported from Clay, Polk, Wilkin and Otter Tail counties.

Wild Turkey — Reported from 33 counties as far north as Polk, Cass and Aitkin.

Virginia Rail — Reported 1/10 Hennepin (calling) TAT.

American Coot — Reported from one north and six south counties with overwintering in Otter Tail, Scott and Winona. Other reports were in December except through 1/25 Meeker DMF.

Franklin's Gull, 28 December 2002, Point Douglas, Washington County. Photo by Karl Bardon.

Killdeer — Only reports: 12/11 & 12/28 Houston FZL and 12/13 Cottonwood BRB.

Common Snipe — Reported from one north and five south counties with overwintering in St. Louis JRN and Houston m.ob. Other reports were only through 1/1.

Franklin's Gull — Alternate adult reported **12/20–28** Washington and Dakota (Point Douglas) ph. KJB, DWT, †TEB, m.ob.

Ring-billed Gull — Late north (only reports) 12/1 Wadena PJB, 12/14 Duluth CBC. Reported from ten south counties with overwintering in Dakota (2) PEJ. All other reports were in December.

Herring Gull — Reported from St. Louis, Lake and Cook counties in the north. Reported from six south counties through 12/29 Wabasha CBC, 1/20 Dakota KJB. Maximum reported number 12/26 Dakota (1,800) KJB.

Thayer's Gull — All north reports: 12/15

Iceland Gull, 16 January 2003, Pine Bend, Dakota County. Photo by Dave Cahlander.

Two Harbors CBC, 2/22–28 Lake (first-winter) JWL. All south reports from Dakota, Washington and Hennepin where a peak noted 12/26 Dakota (11) KJB, and last seen 1/12 Dakota SWe.

Iceland Gull — All reports: adult 2/23 St. Louis (Duluth) †PHS, and first-winter individual 11/27–1/20 Dakota ADS, PEB, KJB, m.ob. (photographed by many observers). Latter bird ranged into Hennepin and Washington counties as well.

Glaucous Gull — Reported from Lake and St. Louis counties in the north. Maximum of three reported from Dakota, where last seen 1/20 KJB.

Rock Dove — Reported from 51 counties throughout the state.

EURASIAN COLLARED-DOVE — Reported without details on the Lac Qui Parle CBC and 12/16 Lyon (Marshall) *fide* RgS.

BAND-TAILED PIGEON — Overwintered at a feeder in Ravenna Twp, Dakota Co. HCT, m.ob.

Mourning Dove — Reported from 40 counties throughout the state, including 45 overwintering in St. Louis (Duluth) JRN.

Eastern Screech-Owl — Reported from 13 south counties plus Polk and Todd in the north.

Great Horned Owl — Reported from 38 counties throughout the state.

Eastern Screech-Owl, 15 February 2003, Edina, Hennepin County. Photo by Dave Cahlander.

Snowy Owl — Eleven individuals reported from seven counties in the south and west. No reports from St. Louis.

Northern Hawk Owl — Only report: 12/1 Pine (near Sandstone) *fide* MCA.

Barred Owl — Reported from 25 eastern and central counties plus Becker in the west.

Great Gray Owl — Twenty-two individuals reported from Roseau, Lake of the Woods, Itasca, Aitkin, St. Louis, and Lake counties.

Long-eared Owl — Nineteen individuals reported from twelve south counties: 12/14 Bloomington CBC, 12/14 Excelsior CBC, 12/14 Northwest McLeod CBC, 12/21 Meeker (Litchfield) DMF, 12/22 Carver (Chaska) RMD, 12/28 Ramsey (3) AXH, 12/30–1/1 Rice (maximum 2) TFB, 1/1 Freeborn AEB, 1/14 Jackson BRB, 1/26

Blue Earth (2) DDM, and 2/14 Mower JJS. ALso reported on the Mankato CBC count week, and three individuals reported 1/8 Granite Falls to Redwood Falls.

Short-eared Owl — Reported 12/22–2/22 Olmsted WLB, CRG *et al.* Also reported 12/14 Northwest McLeod CBC, in late December from Lyon and Murray counties *fide* AXH, on the Roseau CBC count week, and 1/24 Wilkin SPM.

Northern Saw-whet Owl — Ten individuals reported from five south counties: 12/14 LaCrosse-LaCrescent CBC, 12/14 Rochester CBC (2), 12/21 Lac Qui Parle CBC, 12/21–2/28+ Hennepin (maximum 2 at Bass Ponds) DWK, SLC, 12/23–24 Rice (maximum 2) FKS, TFB, 12/24 Hennepin (Gideon Pond House) SLC, and the St. Paul (Northeast Suburban) CBC count week.

Belted Kingfisher — Reported from 4 north and 21 south counties with overwintering as far north as Otter Tail. Unusually far north report **1/19** Kittson SPM.

Red-headed Woodpecker — Reported from nine south counties plus Cass, Morrison and Todd in the north.

Red-bellied Woodpecker — Reported from 49 counties in all regions of the state but absent from the northernmost tier of counties.

Yellow-bellied Sapsucker — Overwintered in St. Louis (Keewatin) ph. BR, Houston *fide* KAK and Lac Qui Parle FE. Also reported from Winona County on 12/5 CAS and 2/14 *fide* CAS, plus 12/14 Rochester †CBC and 12/29 Wabasha †CBC.

Downy Woodpecker — Reported from 55 counties throughout the state.

Hairy Woodpecker — Reported from 54 counties throughout the state.

Three-toed Woodpecker — Both a male and a female reported along the Spruce Road, Lake Co. JWL, CRM, KRE *et al.*

Partial albino Blue Jay, 2 December 2002, Houston, Houston County. Photo by Karla Kinstler.

Black-backed Woodpecker — Maximum 49 individuals reported from eight north counties.

Northern Flicker — Reported from 32 counties in the south and west. Absent from the Northeast region and only reported from Beltrami in the North-central.

Pileated Woodpecker — Reported from 52 counties throughout the state.

Northern Shrike — Reported from 48 counties throughout the state.

Gray Jay — Reported from nine counties in range.

Blue Jay — Reported from 62 counties throughout the state.

Black-billed Magpie — Reported from 10 counties in range.

American Crow — Reported from 59 counties throughout the state.

Common Raven — Reported from 12 counties in range as far south as Anoka, plus 2/15 Todd JSK, SDu.

White-breasted Nuthatch, 29 December 2002, Eagan, Dakota County. Photo by Dave Cahlander.

Horned Lark — Reported from 37 counties in all regions except the Northeast. Hundreds noted by 2/2 Fillmore NBO.

Black-capped Chickadee — Reported from 64 counties throughout the state.

Boreal Chickadee — Reported from eight counties in range.

Tufted Titmouse — Reported from Wabasha, Winona, Houston and Fillmore counties.

Red-breasted Nuthatch — Reported from 21 north and 15 south counties in all regions of the state, but very low numbers in the south. Data from CBCs show a total of 78 individuals tallied in south, and 1183 in the north including a peak of 562 on the Isabella CBC.

White-breasted Nuthatch — Reported from 58 counties throughout the state.

Brown Creeper — Reported from 46 counties throughout the state.

Carolina Wren — Single birds reported 12/14–2/22 Olmsted (Rochester) †RLE, m.ob., and 12/16–1/29 Rice (Straight River) †FKS, †DAB, m.ob.

Winter Wren — Record-high ten individuals in six southeastern counties, with overwintering in Hennepin SLC and Houston m.ob. Also reported 12/14 Crosby CBC, only the second ever winter report in the north.

Marsh Wren — Reported 12/14 Bloomington †CBC.

Ruby-crowned Kinglet — Documented 12/14–29 Ramsey *fide* †PF. Also reported without details on the St. Cloud CBC.

Golden-crowned Kinglet — Reported from 15 counties in all regions except the South-central and West-central. Only reports after 1/1 were 1/4–2/15 Aitkin WN *et al.* and 2/16 Winona RA.

Eastern Bluebird — Maximum 117 individuals reported from 11 south counties plus two north reports: 12/13–14 St. Louis (maximum 5) JWL *et al.* and 1/30 Otter Tail (5) SPM. Only February reports were from Winona and Houston where probably overwintered.

Townsend's Solitaire — All six reports: 12/1–2/15 Lake (Two Harbors) JWL, m.ob., 12/11–1/15 **Polk** (East Grand Forks) †EEF, †SAS, †JMJ, m.ob., 12/14–1/26 Rice (Northfield) †GBa, †PHS, m.ob., 1/1–2 Kandiyohi (Sibley State Park) ABo, RAE, 1/4 St. Louis (East Duluth) *fide* DRB, 2/8–11 Lake (Silver Cliff) JWL.

Hermit Thrush — About 12 individuals reported from seven south counties, plus 2/1 Grant SPM in the north (only three previous north winter reports). Overwintered in Hennepin SLC and Rice TFB.

American Robin — Reported from 45 counties throughout the state. Maxima 12/14 Winona CBC (774) and 2/28 Renville (250–300) RJS.

Varied Thrush — Nine individuals reported from six north and three south counties: 12/9 Cass (Hwy 317) *fide* AXH, 12/20 Lake (Silver Bay) BSN, mid-De-

cember through 1/20 Hennepin (Maple Grove) KL, m.ob., the Grand Forks-East Grand Forks CBC count week, 1/15–2/25 Clay (Moorhead) m.ob., 1/20–2/8+ Cook (near Grand Marais) BSt, 1/22 Ramsey (Roseville) AXH, 2/17 St. Louis (Duluth) JRN, 2/22–28+ Stearns (St. Cloud) HHD.

Gray Catbird — Three reports: 12/14 Minneapolis CBC, 1/1 Anoka (Mahtomedi) EFu, and 1/2–5 Anoka (Coon Rapids) JHu, JBe.

Brown Thrasher — All reports: overwintered Otter Tail SPM, 1/26 Cook (Schroeder) JCT, 2/3 Winona (Utica) *fide* JBD.

European Starling — Reported from 58 counties throughout the state.

Bohemian Waxwing — Reported from 17 north counties plus 2/8 Meeker (Litchfield Nature Center) DMF. Maximum reported number 1/28 Cook (2,000) RBJ.

Cedar Waxwing — Reported from 49 counties throughout the state. Maximum reported numbers 12/29 St. Paul (Northeast Suburban) CBC (430), and 12/31 Hubbard (200+) DPJ.

Yellow-rumped Warbler — Nine individuals reported from four south counties plus Otter Tail in the north. Overwintered in Hennepin SLC.

Northern Waterthrush — First winter record **12/8–14** Winona (Whitewater State Park) †DBz.

Eastern Towhee — Reported 12/14 Albert Lea CBC.

towhee, sp. — Reported 12/14 Crookston †CBC.

American Tree Sparrow — Reported from 47 counties throughout the state.

Chipping Sparrow — Only documented report: 12/14 Bloomington †CBC (1). Reported without details from Winona and Hennepin.

Field Sparrow — All reports: 12/30 Waseca JEZ, 1/5 Hennepin TAT, 2/5 Olmsted †JWH, 2/8 Nicollet ChH.

Vesper Sparrow — Reported without details 12/16 Todd JSK.

Fox Sparrow — Record seventeen individuals reported from three north and seven south counties, including February reports from Hubbard, Benton, Hennepin and Fillmore.

Song Sparrow — Maximum 69 individuals reported from 3 north and 18 south counties including overwintering in Hennepin SLC and Rice TFB, and February reports from an additional seven counties.

Lincoln's Sparrow — Ninth winter record 12/13 Otter Tail †SPM.

Swamp Sparrow — Maximum 30 individuals reported from 10 south counties plus the following north reports: 11/28–12/20 Lake (Two Harbors) †JWL, 12/13 Otter Tail †SPM, 2/21 Lake (Castle Danger) JWL. Overwintered in Anoka *fide* AXH, Dakota CRG, and Hennepin SLC with February reports from an additional five counties. Record-high number of reports.

White-throated Sparrow — Reported from 7 north and 18 south counties with overwintering in at least 9 counties as far north as Polk, Aitkin, St. Louis and Cook.

Harris's Sparrow — Maximum 29 individuals reported from 12 south counties plus Otter Tail in the north. Overwintered in Steele NFT plus February reports from Otter Tail, Hennepin, Nicollet and Freeborn counties. Record-high number of reports.

White-crowned Sparrow — All reports: 12/14–1/1 Olmsted (maximum 6) CBe *et al*., 12/20 Lamberton CBC (1), 2/1

Baltimore Oriole, 1 December 2002, Silver Bay, Lake County. Photo by Bill Nelson.

Houston CRG (2), 2/1 Grant SPM, and the Mountain Lake CBC count week.

Dark-eyed Junco — Reported from 55 counties throughout the state.

Lapland Longspur — Reported from 12 counties in the south and west. No reports 1/8–2/6, but apparent returning flocks of 20–50 reported 2/7–26. Maximum reported number 12/14 Crookston CBC (308).

Snow Bunting — Reported from 20 north but only 7 south counties in all regions of the state. Maximum reported numbers 1/3 Baudette CBC (1,164) and 2/6 Cass (1,000) EP.

Northern Cardinal — Reported from 48 counties throughout the state.

Red-winged Blackbird — Reported from 4 north and 21 south counties with ovewintering in St. Louis ALE and Jackson BRB. Maximum reported numbers 12/14 Mankato CBC (683) and 1/9 Jackson (400) BRB.

Yellow-headed Blackbird — Only report 1/20 Beltrami (male at Waskish) †DPJ.

Rusty Blackbird — Reported from 2 north and 12 south counties including overwintering as far north as Otter Tail SPM and Lake (Two Harbors) †JWL, ph. PHS, m.ob.

Common Grackle — Reported from 8 north and 20 south counties throughout the state and season.

Brown-headed Cowbird — Reported 12/14 Bloomington †CBC (5) and 12/28 Hastings †CBC (8) with numerous additional reports from Dakota where probably overwintered. Also reported 2/21–22 Rice TFB, CAS.

Baltimore Oriole — Injured adult male overwintered in Bemdji, Beltrami Co. PRR, ph. MDr, while an apparently healthy adult male overwintered in Silver Bay, Lake Co. ph. BSN.

Pine Grosbeak — Reported from nine north counties. Maximum reported number 1/4 Isabella CBC (48).

Purple Finch — Reported from 18 north and 18 south counties, but only one each from the South-central and Southwest regions. Maximum reported numbers 12/27 Pine County CBC (263) and 2/27 Koochiching (184 in Big Falls) KJB.

House Finch — Reported from 43 counties throughout the state.

Red Crossbill — Reported from seven north counties. Maximum reported number 1/4 Isabella CBC (106).

White-winged Crossbill — Reported from 11 north counties. Maximum reported numbers 12/14 Duluth CBC (214), 1/4 Isabella CBC (206), and 1/11 Aitkin (300) WN. Nest with three eggs found 2/28 Lake JWL.

Common Redpoll — Reported from 11 north counties and only the following two south reports: 12/16 Wild River CBC (16) and 12/20 Isanti *fide* AXH. Maximum reported number 12/14 Crookston CBC (100).

Pine Siskin — Reported from ten north

and five south counties. Absent from a large portion of the state in the West-central, Central, and Southwest regions. Maximum reported numbers 12/18 Bemdji CBC (60) and 1/12 Aitkin (60) WN.

American Goldfinch — Reported from 59 counties throughout, with hundreds of birds found in the Northeast. Maximum reported number 1/4 Cook CBC (343).

Evening Grosbeak — Reported from seven north counties plus 12/29 Wabasha CBC in the south. Maximum reported number 1/4 Isabella CBC (278).

House Sparrow — Reported from 55 counties throughout the state.

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Minnesota Christmas Bird Count Review
14 December 2002 – 5 January 2003

Roger Schroeder

An estimated 1,230 volunteers logged approximately 2,920 hours during the 2002–03 Minnesota Christmas Bird Count (CBC). Many anecdotal reports spoke of poor species diversity and low numbers. For example, Tamarac NWR CBC coordinator Lowell Deede noted that, "556 individuals is the lowest number ever." Many others spoke of "average" numbers.

Cooperatively, however, Minnesota's 61 reporting CBCs set a new total census record of 431,619 birds. In addition to this new standard, the 132 Count Day species were only four short of equaling the record high of 136. As if that is not enough, Minnesota added two new species to the state composite species list, Band-tailed Pigeon and Franklin's Gull.

Late fall and early winter season weather seemed to be reversed this year. Though the month of October was very cold, December seemed intent to make up for October's unusual briskness. In the St. Cloud area for example, the average December temperature of 23.2°F was more than eight and a half degrees above normal. These statistics made December 2002 the 14th warmest in the 122 years of St. Cloud temperature records, which seemed to typify most of Minnesota. December mean temperatures were well above historical averages across the state, generally ranging from six to ten degrees above normal.

Even with warmer than average December temperatures, nearly all of Minnesota's smaller and shallower lakes were

ice-covered by CBC time, and most of Minnesota's larger lakes had sizeable areas of ice cover. High winds over the Thanksgiving holiday weekend opened some lakes in western and southern Minnesota, but frigid temperatures led to a quick refreeze. Despite the warmer December, frozen conditions most likely led to lower waterfowl diversity (24 species) as compared to last year's 28 species.

Lack of snow cover was another weather factor. As was the case in November, December precipitation was quite light across nearly all of Minnesota. The only significant precipitation was an 18 December ice storm in central, north central and northeastern Minnesota. By the end of the count period, very few areas were snow covered. A handful of communities in far northern counties reported snow depths greater than four inches. Elsewhere, snow cover was less than two inches or completely absent; thus, early January snow depths were some of the lowest on record. Lack of snow cover most likely led to difficulty in locating large numbers of "road birds" such as Ring-necked Pheasant, Gray Partridge, Lapland Longspur, Snow Bunting, and Horned Lark whose totals were well below CBC averages. Numbers for both Snow Bunting and Gray Partridge represent the second lowest in the past 30 years.

Northern (boreal) birds were also few and far between this season. Northern owls were nearly absent with only four Great Gray Owls, three Snowy Owls, and no Northern Hawk Owls recorded. Similar low numbers were reported for many winter finches. Pine Grosbeak, Evening Grosbeak, and Pine Siskin, represent the lowest numbers in the past 20 years.

Two of the highlights on this season's count occurred in the Hastings-Etter census area. Minnesota's first CBC Band-tailed Pigeon and Franklin's Gull bumped the state's composite list up to 196 Count Day species. The Band-tailed Pigeon had been coming to the Hank and Carol Tressel residence (south of Hastings) since November, and was gracious enough to stay through much of winter. Franklin's Gull was a surprise as this species is usually absent from Minnesota by the end of November.

Other firsts during this year include species seen for the first time in one of Minnesota's nine geographic areas. In the northwest, a towhee (*piplio* sp.) was observed on the Crookston CBC. According to compiler Tom Fiero, this was the first he had seen in his 25 years living in the Crookston area. Wild Turkey was the only other species new to a northern geographic area count — showing up in the North-central region near Pillager. Several new species were seen in the West-central region including a Eurasian Collared-Dove on the Lac Qui Parle CBC. Both Lincoln's Sparrow (Count Week) and Yellow-rumped Warbler were recorded on the Fergus Falls count. In central Minnesota, Ruby-crowned Kinglet was observed on the St. Cloud-Collegeville count — one of only 11 Minnesota CBC records for this species. Ross's Goose was observed on the Willmar CBC. Aside from the Band-tailed Pigeon, and Franklin's Gull, Great Egret was new to the East-central region; one individual was reported on both the Excelsior and Bloomington (Count Week) counts. In the southern regions, American Black Duck appeared on a southwestern CBC (Marshall), and Townsend's Solitaire was observed on the South-central count of Faribault.

Several additional significant observations include Mute Swan (Northern Wright County), Long-tailed Duck (Duluth, Hastings-Etter), Greater Scaup (Duluth), Yellow-bellied Sapsucker (Rochester), Marsh Wren (Bloomington), Winter Wren (Crosby and Bloomington), Carolina Wren (Rochester, Faribault Count Week), and Gray Catbird (Minneapolis [North]). Though not considered a full species, the Red-shafted Flicker observed by Lee and JoAnn French on the Marshall count was also unusual.

Canada Goose comprised 53% (230,047) of the total individuals counted this season; nearly half of which were observed on the Lac Qui Parle CBC (111,800). As seen in Table 1, since the inception of the Lac Qui Parle CBC in Count Year

MN	CY	Total MN Census	Total Canada Goose Census	Canada Goose Total Rank	LQPRL Goose Census	Number of MN CBCs
1	103	431,619 *	230,047	1	111,800	62
2	100	386,190 *	144,200	3	45,000	57
3	99	372,074 *	149,065	2	20,000	57
4	102	362,118	127,989	5	15,000	61
5	90	307,477 *	123,190	6	85,000	42
6	87	287,319 *	139,648	4	105,000	41
7	81	280,985 *	68,555	14	22,000	37
8	96	275,410	98,610	9	50,000	50
9	98	274,789	107,481	8	55,000	55
10	91	271,090	110,938	7	76,000	45

Table 1: Highest Minnesota CBC Canada Goose numbers as compared to Lac Qui Parle CBC census numbers. CY refers to the Nth year of the national CBC census. For example, 103 refers to the 2002–03 CBC season, while 91 refers to the 1990–91 CBC season. An asterisk (*) indicates that the MN census that year was the highest on record.

80, high Canada Goose numbers from that location account for many of Minnesota's highest total census numbers.

Nineteen species were seen in greater numbers than previously. Most noteworthy were new high census totals for Great Blue Heron (43), Trumpeter Swan (1,050), Cooper's Hawk (32), Merlin (13), Belted Kingfisher (56), Pileated Woodpecker (307), Red-breasted Nuthatch (1,261), and White-throated Sparrow (108).

Count Week observations added four species to the season's census totals brining the count period composite list to 136 species. Most notable were Iceland Gull (Bloomington), Varied Thrush (Minnesota side Grand Forks-East Grand Forks), and Lincoln's Sparrow (Fergus Falls).

Bloomington's 69 Count Day species was one of only two CBCs with more then 60 species, with Excelsior's 62 species close behind. Both counts were well above their 20-year average number of Count Day species. More than half of the census locations reported species totals above their 20-year-average. In addition, four census areas reported Count Day species totals that equaled or increased their previous high mark, including the Pillager CBC, which increased its highest by three species.

Two additional census areas were conducted this year. Bob Russell resurrected a CBC of old — the Rice Lake NWR — using the previous count circle with superb results: 36 species tallying 1,971 birds. That count had only been conducted twice previously, in Count Years 53 (20 species, 180 birds) and 58 (16 species, 248 birds)

Charlotte Jacobson initiated a new census area including Cook, Minnesota. Their effort tallied 23 species, and 943 individuals birds. Charlotte noted that Pine and Evening grosbeak numbers were down this season as compared to past winters, and that Pine Siskin and redpolls were absent from their count.

In closing, I would like to express my most sincere thanks to all participants who volunteer their important time to accumulate this data. I would like to further acknowledge the additional efforts and assistance offered by compilers of counts with territory in two states; Joseph Merchak, Robert O'Conner, Dave Lambeth, Tammy & Roger Field, Rick Kinzie, Jon Peterson, and Kraig Geise. Many thanks also to Karl Bardon for his review of documentation accompanying the more unusual sightings.

More information regarding Minnesota's Christmas Bird Count is available on the internet at www.rohair.com/cbc.html.

215 Rainbow Drive, Marshall, MN 56258.

Species	Count	CW	Totals	Peak
Common Loon	1	0	1	1
Pied-billed Grebe	3	1	3	1
Double-crested Cormorant	2	1	7	4
Great Egret	1	1	1	1
Great Blue Heron	18	2	43	22
Snow Goose	5	3	11	3
Ross's Goose	2	0	3	2
Canada Goose	38	1	230,047	111,800
Mute Swan	1	0	1	1
Trumpeter Swan	12	0	1,050	544
Tundra Swan	5	0	10	5
Wood Duck	8	1	14	4
Gadwall	1	2	33	33
American Wigeon	1	0	1	1
American Black Duck	14	2	73	17
Mallard	40	1	36,868	5,335
Northern Shoveler	2	0	2	1
Northern Pintail	5	2	9	2
Green-winged Teal	3	0	9	6
Canvasback	1	0	1	1
Redhead	1	0	2	2
Ring-necked Duck	2	0	14	13
Greater Scaup	1	0	1	1
Lesser Scaup	7	1	21	6
Long-tailed Duck	2	1	2	1
Bufflehead	6	0	15	6
Common Goldeneye	25	0	1,416	232
Hooded Merganser	10	2	22	6
Common Merganser	23	1	1,917	680
Red-breasted Merganser	3	0	18	16
Ruddy Duck	1	0	1	1
Bald Eagle	51	2	618	95
Northern Harrier	8	2	10	2
Sharp-shinned Hawk	20	1	41	7
Cooper's Hawk	16	1	32	5
Northern Goshawk	12	1	23	7
Red-shouldered Hawk	8	0	13	6
Red-tailed Hawk	38	0	594	69
Rough-legged Hawk	29	1	111	24
Golden Eagle	3	0	4	2
American Kestrel	31	1	117	13
Merlin	11	1	13	3
Peregrine Falcon	2	0	4	3
Gray Partridge	2	0	14	7
Ring-necked Pheasant	34	2	448	48
Ruffed Grouse	21	2	82	12
Spruce Grouse	1	0	1	1
Sharp-tailed Grouse	6	0	42	16
Greater Prairie-Chicken	1	1	93	93
Wild Turkey	26	0	639	154
American Coot	6	0	16	7
Killdeer	0	0	0	0
Wilson's Snipe	3	0	3	1
Franklin's Gull	1	0	1	1
Herring Gull	8	0	2,644	1,775
Ring-billed Gull	9	0	92	30
Thayer's Gull	2	0	4	3
Iceland Gull	0	1	0	0
Glaucous Gull	3	0	5	3
Band-tailed Pigeon	1	0	1	1
Rock Dove	58	0	11,921	1,609
Eurasian Collared-Dove	1	0	2	2
Mourning Dove	41	1	1,041	294
Eastern Screech-Owl	11	0	18	4
Great Horned Owl	30	3	96	12
Snowy Owl	2	1	3	2
Barred Owl	21	0	46	9
Great Gray Owl	3	2	4	2
Long-eared Owl	3	1	3	1
Short-eared Owl	1	1	1	1
Northern Saw-whet Owl	3	1	4	2
Belted Kingfisher	21	1	56	9
Red-headed Woodpecker	7	1	23	7
Red-bellied Woodpecker	42	2	736	75
Yellow-bellied Sapsucker	2	0	2	1
Downy Woodpecker	61	0	2,776	236
Hairy Woodpecker	60	0	1,121	93
Black-backed Woodpecker	9	0	29	12
Northern Flicker	31	1	124	17
Pileated Woodpecker	48	2	307	27
Northern Shrike	44	1	114	8
Gray Jay	15	0	232	77
Blue Jay	60	0	5,006	335
Black-billed Magpie	6	0	378	296
American Crow	59	0	18,042	2,002
Common Raven	23	0	1,157	168
Horned Lark	11	0	335	108
Black-capped Chickadee	61	0	18,072	2,263
Boreal Chickadee	5	0	67	34
Tufted Titmouse	2	0	8	7
Red-breasted Nuthatch	36	0	1,261	562
White-breasted Nuthatch	61	0	3,992	320
Brown Creeper	47	1	241	25
Carolina Wren	1	1	1	1
Winter Wren	3	0	3	1
Marsh Wren	1	0	1	1
Golden-crowned Kinglet	11	1	33	7
Ruby-crowned Kinglet	1	1	1	1
Eastern Bluebird	10	1	62	13
Townsend's Solitaire	1	1	1	1
Hermit Thrush	3	1	4	2
American Robin	33	1	2,178	774
Varied Thrush	0	1	0	0
European Starling	57	0	27,572	2,188
Gray Catbird	1	0	1	1
Bohemian Waxwing	13	1	1,026	313
Cedar Waxwing	44	1	3,912	430
Yellow-rumped Warbler	3	0	4	2
Eastern Towhee	2	0	2	1
American Tree Sparrow	45	0	4,282	295
Chipping Sparrow	2	0	3	2
Fox Sparrow	7	1	11	4
Song Sparrow	13	1	41	11
Lincoln's Sparrow	0	1	0	0
Swamp Sparrow	5	0	5	1
White-throated Sparrow	24	0	108	37
Harris's Sparrow	7	0	20	8
White-crowned Sparrow	2	1	4	3
Dark-eyed Junco	53	1	9,250	668
Lapland Longspur	5	0	432	308
Snow Bunting	16	0	1,688	1,164
Northern Cardinal	43	3	2,016	376
Red-winged Blackbird	19	0	1,157	683
Rusty Blackbird	10	0	44	28
Common Grackle	23	0	122	30
Brown-headed Cowbird	2	0	13	8
Pine Grosbeak	8	0	106	48
Purple Finch	35	0	1,506	263
House Finch	43	0	2,559	297
Red Crossbill	7	0	185	106
White-winged Crossbill	14	0	834	214
Common Redpoll	10	0	208	100
Pine Siskin	16	0	185	60
American Goldfinch	57	1	4,951	343
Evening Grosbeak	6	0	536	278
House Sparrow	58	0	21,673	1,703
Red-shafted Flicker	1	0	1	1
Dark-eyed (Oregon) Junco	4	0	7	3
merganser sp.	1	0	5	5
buteo sp.	1	0	1	1
grouse sp.	1	0	3	3
woodpecker sp.	1	0	1	1
blackbird sp.	1	0	350	350
crossbill sp.	1	0	12	12
Count Day			132	132
Count Week			4	4
Full Species			136	136
Subspecies/unidentified			0	0
Composite List			136	136
Sum (full species)			431,239	140,530
Sum (subspecies/genus)			380	376
TOTAL INDIVIDUALS			**431,619**	**140,906**

Table 2. Species summary for the 2002–03 Minnesota Christmas Bird Count. "Count" indicates the number of CBCs reporting species on Count Day only. "CW" indicates the number of CBCs reporting species during Count Week but not on Count Day. Note: Only Minnesota portions of CBC circles are represented in the data.

Species	ABLEA	AFTON*	AUROR	AUSTN	BATLK	BAUDT	BEMID	BLOOM	BLTRM	BSNWR*	CEDRC	COOK	COTTN	CRLCL	CROOK
Common Loon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pied-billed Grebe	-	-	-	-	1	-	-	0	-	-	-	-	-	-	-
Double-crested Cormorant	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
Great Egret	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-
Great Blue Heron	1	-	-	1	2	-	-	1	-	-	1	-	-	-	-
Snow Goose	-	-	-	-	-	-	-	-	-	OB	-	-	-	-	-
Ross's Goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada Goose	6,773	2,204	-	4,652	485	-	1	8,670	-	737	132	-	88	-	-
Mute Swan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trumpeter Swan	-	8	-	-	387	-	1	1	-	-	-	-	-	-	-
Tundra Swan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wood Duck	1	-	-	1	1	-	-	4	-	-	-	-	-	-	-
Gadwall	-	OB	-	-	-	-	-	0	-	-	-	-	-	-	-
American Wigeon	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
American Black Duck	4	OB	-	-	-	-	-	5	-	-	-	-	-	-	-
Mallard	779	964	-	970	24	-	15	4,183	-	OB	29	-	-	10	4
Northern Shoveler	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Pintail	2	-	-	-	-	-	-	0	-	-	-	-	-	-	-
Green-winged Teal	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-
Canvasback	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redhead	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring-necked Duck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greater Scaup	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lesser Scaup	-	-	-	-	1	-	-	0	-	-	-	-	-	-	-
Long-tailed Duck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bufflehead	-	-	-	-	1	-	-	-	-	OB	-	-	-	-	-
Common Goldeneye	-	7	8	-	30	-	-	91	-	-	-	-	-	-	-
Hooded Merganser	-	-	1	-	-	-	-	3	-	2	-	-	-	-	-
Common Merganser	1	324	-	-	-	-	-	190	-	-	9	-	-	-	-
Red-breasted Merganser	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ruddy Duck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bald Eagle	2	17	3	5	5	3	8	6	-	2	6	2	2	4	1
Northern Harrier	-	0	-	0	-	-	-	-	-	-	-	-	-	-	-
Sharp-shinned Hawk	-	-	-	2	3	-	-	1	-	-	1	-	-	-	-
Cooper's Hawk	1	0	-	4	-	-	-	1	-	-	-	-	-	-	-
Northern Goshawk	-	OB	-	-	-	-	-	1	-	-	-	-	-	2	-
Red-shouldered Hawk	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-
Red-tailed Hawk	12	4	-	18	1	-	-	37	-	1	10	-	3	-	-
Rough-legged Hawk	1	-	2	-	-	-	6	2	-	-	-	-	-	4	2
Golden Eagle	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2
American Kestrel	7	OB	-	4	-	-	-	5	-	1	1	-	1	-	1
Merlin	-	OB	-	1	-	-	-	0	-	-	-	-	1	-	3
Peregrine Falcon	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Gray Partridge	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring-necked Pheasant	8	2	-	26	0	-	-	2	-	16	15	-	34	-	-
Ruffed Grouse	-	OB	6	-	-	-	-	-	1	-	-	2	-	0	-
Spruce Grouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sharp-tailed Grouse	-	-	-	-	-	1	-	-	-	-	-	-	-	-	5
Greater Prairie-Chicken	-	-	-	-	-	-	-	-	-	-	-	-	-	-	93
Wild Turkey	5	7	-	49	14	-	-	18	-	-	21	-	-	-	-
American Coot	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Killdeer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wilson's Snipe	-	OB	-	-	-	-	-	1	-	-	-	-	-	-	-
Franklin's Gull	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herring Gull	-	-	-	-	-	-	-	1,775	-	-	-	-	-	-	-
Ring-billed Gull	-	-	-	-	-	-	-	25	-	-	1	-	-	-	-
Thayer's Gull	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
Iceland Gull	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-
Glaucous Gull	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-
Band-tailed Pigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rock Dove	202	35	9	308	90	22	155	263	-	2	134	6	92	103	591
Eurasian Collared-Dove	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mourning Dove	9	2	6	9	9	-	18	34	-	5	9	-	5	8	1
Eastern Screech-Owl	1	-	-	2	-	-	-	1	-	1	-	-	-	-	-
Great Horned Owl	1	-	-	8	2	-	-	1	-	2	1	-	3	0	1
Snowy Owl	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Barred Owl	-	-	-	9	-	-	-	1	1	-	1	-	-	-	-
Great Gray Owl	-	-	1	-	-	0	-	-	-	-	-	-	-	-	-
Long-eared Owl	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Short-eared Owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Saw-whet Owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belted Kingfisher	2	OB	-	9	-	-	-	3	-	-	1	-	-	-	-
Red-headed Woodpecker	2	-	-	-	-	-	-	-	-	-	5	-	-	-	-
Red-bellied Woodpecker	11	19	-	30	20	-	0	44	-	-	5	-	4	0	-
Yellow-bellied Sapsucker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Downy Woodpecker	44	18	5	122	68	7	13	180	5	7	44	12	17	11	7
Hairy Woodpecker	11	7	10	10	26	9	11	40	12	6	12	6	16	15	13

Table 3. Total number of species for each location of the 2002–03 Minnesota CBC, Albert Lea through Crookston. Data include Count Day observations from Minnesota only. OB = out of state boundary. Value of 0 is a Count Week observation. ABLEA = Albert Lea, AFTON = Afton, AUROR = Aurora, AUSTN = Austin, BATLK = Battle Lake, BAUDT = Baudette, BLTRM = Beltrami Island, BEMID = Bemidji, BSNWR = Big Stone N.W.R., BLOOM = Bloomington, CRLCL = Carlton-Cloquet, CEDRC = Cedar Creek Bog, COOK = Cook Area, COTTN = Cottonwood, CROOK = Crookston.

Species	ABLEA	AFTON*	AUROR	AUSTN	BATLK	BAUDT	BEMID	BLOOM	BLTRM	BSNWR*	CEDRC	COOK	COTTN	CRLCL	CROOK
Black-backed Woodpecker	-	-	-	-	-	-	1	-	3	-	-	2	-	-	-
Northern Flicker	4	1	-	1	0	-	1	4	-	-	-	-	3	-	2
Pileated Woodpecker	-	3	0	2	15	3	3	7	3	-	8	2	-	3	4
Northern Shrike	1	1	2	-	2	3	-	5	-	1	5	-	-	0	2
Gray Jay	-	-	13	-	-	14	1	-	25	-	-	17	-	5	-
Blue Jay	76	52	60	133	95	60	63	146	24	10	80	64	39	61	9
Black-billed Magpie	-	-	-	-	-	36	-	-	-	-	-	-	-	-	12
American Crow	189	227	15	1,492	168	1	75	1,144	-	23	274	2	97	54	58
Common Raven	-	-	75	-	-	78	20	-	13	-	6	132	-	20	-
Horned Lark	-	1	-	-	-	-	-	-	-	1	-	-	9	-	-
Black-capped Chickadee	103	170	272	352	307	166	299	920	144	43	179	236	28	290	76
Boreal Chickadee	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-
Tufted Titmouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Red-breasted Nuthatch	1	-	55	6	-	16	35	-	19	-	15	10	-	21	-
White-breasted Nuthatch	50	18	7	114	184	9	45	204	4	8	34	10	17	15	38
Brown Creeper	1	-	-	4	9	1	1	15	2	1	1	1	6	2	-
Carolina Wren	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter Wren	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-
Marsh Wren	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Golden-crowned Kinglet	-	-	-	-	-	-	-	4	-	-	-	-	2	-	-
Ruby-crowned Kinglet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eastern Bluebird	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Townsend's Solitaire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hermit Thrush	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
American Robin	33	141	-	38	12	-	-	203	-	-	-	-	-	1	-
Varied Thrush	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
European Starling	367	60	68	476	119	37	25	1,188	-	48	260	22	429	35	386
Gray Catbird	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bohemian Waxwing	-	-	0	-	-	80	35	-	-	-	-	-	-	1	-
Cedar Waxwing	35	167	-	244	160	-	24	127	-	-	67	-	31	-	-
Yellow-rumped Warbler	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Eastern Towhee	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
American Tree Sparrow	135	37	-	157	71	-	5	295	-	183	80	3	159	-	-
Chipping Sparrow	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Fox Sparrow	1	-	-	-	-	-	-	1	-	-	1	-	-	-	-
Song Sparrow	-	-	-	4	-	-	-	11	-	-	-	-	2	-	-
Lincoln's Sparrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Swamp Sparrow	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-
White-throated Sparrow	2	1	-	3	-	-	-	6	-	-	-	1	-	1	-
Harris's Sparrow	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
White-crowned Sparrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dark-eyed Junco	363	174	0	557	222	-	8	409	-	57	150	5	85	10	39
Lapland Longspur	-	-	-	-	-	-	-	-	-	2	-	-	-	-	308
Snow Bunting	-	-	-	-	-	1,164	-	-	-	-	-	-	-	8	3
Northern Cardinal	12	45	-	52	3	-	-	241	-	-	40	-	4	3	-
Red-winged Blackbird	12	-	1	1	-	-	-	1	-	1	-	-	2	-	-
Rusty Blackbird	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common Grackle	20	-	-	-	1	-	-	2	-	-	-	-	-	-	1
Brown-headed Cowbird	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-
Pine Grosbeak	-	-	13	-	-	-	-	-	8	-	-	9	-	-	-
Purple Finch	-	-	101	-	4	-	6	-	-	-	2	33	-	41	3
House Finch	46	8	-	19	57	-	15	203	-	OB	-	-	33	-	17
Red Crossbill	-	-	36	-	-	-	-	-	21	-	-	-	-	4	-
White-winged Crossbill	-	-	3	-	-	5	-	-	37	-	-	-	-	8	-
Common Redpoll	-	-	-	-	-	-	-	-	-	-	-	-	-	2	100
Pine Siskin	2	-	1	-	-	-	60	-	6	-	-	-	-	19	-
American Goldfinch	65	76	130	175	69	-	30	201	12	8	146	343	17	131	-
Evening Grosbeak	-	-	50	-	-	-	-	-	-	-	-	23	-	-	-
House Sparrow	482	132	18	1,130	307	124	113	1,066	-	108	140	-	332	108	1,291
Red-shafted Flicker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dark-eyed (Oregon) Junco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
merganser sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
buteo sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
grouse sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
woodpecker sp.	-	OB	-	-	-	-	-	-	-	-	-	-	-	-	-
blackbird sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
crossbill sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Count Day	50	32	28	42	38	21	30	69	19	26	40	23	31	31	31
Count Week	0	0	3	1	2	1	1	7	0	0	0	0	0	4	0
Full Species	50	32	31	43	40	22	31	76	19	26	40	23	31	35	31
Subspecies/unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Composite List	50	32	31	43	40	22	31	76	19	26	40	23	31	35	31
Out of State	-	13	-	-	-	-	-	-	-	4	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum (full species)	9,891	4,932	971	11,202	2,976	1,839	1,093	22,024	349	1,276	1,928	943	1,562	1,000	3,074
Sum (subspecies/genus)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL INDIVIDUALS	**9,891**	**4,932**	**971**	**11,202**	**2,976**	**1,839**	**1,093**	**22,024**	**349**	**1,276**	**1,928**	**943**	**1,562**	**1,000**	**3,074**

Table 3, contined.

Species	CROSB	DLAKE	DULUT	EXCEL	FARIB	FERGS	FRGMH*	FRMNT	GFEGF*	GRRAP	HASTE*	HIBBG	IFALL	ISBEL	ITSCA
Common Loon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pied-billed Grebe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double-crested Cormorant	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-
Great Egret	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Great Blue Heron	-	-	-	2	-	1	-	-	-	-	0	-	-	-	-
Snow Goose	-	-	-	-	1	0	-	3	-	-	-	-	-	-	-
Ross's Goose	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Canada Goose	-	-	-	5,817	2,088	10,800	2,525	7,100	-	-	7,236	-	-	-	1
Mute Swan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trumpeter Swan	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-
Tundra Swan	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Wood Duck	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-
Gadwall	-	-	-	33	-	-	0	-	-	-	-	-	-	-	-
American Wigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
American Black Duck	-	-	12	10	1	-	-	4	-	-	1	-	-	-	-
Mallard	-	7	403	3,687	1,050	3,200	492	228	OB	6	5,335	-	-	-	2
Northern Shoveler	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-
Northern Pintail	-	-	-	1	0	2	2	-	-	-	-	-	-	-	-
Green-winged Teal	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Canvasback	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redhead	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
Ring-necked Duck	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-
Greater Scaup	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Lesser Scaup	-	-	-	6	-	3	-	6	-	-	-	-	-	-	-
Long-tailed Duck	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-
Bufflehead	-	-	1	6	-	-	1	-	-	-	-	-	-	-	-
Common Goldeneye	-	-	201	166	-	51	2	8	-	-	232	-	28	2	-
Hooded Merganser	-	1	-	5	1	6	-	-	-	-	-	-	-	-	-
Common Merganser	-	-	20	54	0	2	-	2	-	-	680	-	-	-	-
Red-breasted Merganser	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-
Ruddy Duck	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Bald Eagle	8	-	13	12	11	4	1	-	1	4	34	0	8	-	6
Northern Harrier	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-
Sharp-shinned Hawk	1	-	-	2	2	1	-	1	OB	1	3	-	-	-	-
Cooper's Hawk	-	-	-	1	3	-	-	-	-	-	1	-	-	-	-
Northern Goshawk	1	-	7	-	-	-	-	-	-	-	-	-	1	-	1
Red-shouldered Hawk	-	-	-	1	1	-	-	-	-	-	1	-	-	-	-
Red-tailed Hawk	-	-	2	29	26	-	1	3	OB	-	27	-	-	-	-
Rough-legged Hawk	4	-	2	3	-	-	-	-	0	-	-	-	-	-	1
Golden Eagle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
American Kestrel	-	-	-	2	3	0	OB	-	1	-	7	-	-	-	-
Merlin	-	-	1	1	1	-	OB	1	OB	-	1	-	-	-	-
Peregrine Falcon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gray Partridge	-	-	-	-	-	-	OB	-	OB	-	-	-	-	-	-
Ring-necked Pheasant	-	1	-	14	21	9	-	0	OB	-	2	-	-	-	-
Ruffed Grouse	-	-	10	-	-	-	-	-	-	9	3	0	2	12	1
Spruce Grouse	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Sharp-tailed Grouse	-	-	-	-	-	-	-	-	OB	-	-	-	9	-	-
Greater Prairie-Chicken	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-
Wild Turkey	-	26	-	13	5	-	14	-	OB	-	1	-	-	-	-
American Coot	-	-	-	7	1	2	-	-	-	-	-	-	-	-	-
Killdeer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wilson's Snipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Franklin's Gull	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Herring Gull	-	-	337	2	-	-	-	-	-	-	258	-	-	-	-
Ring-billed Gull	-	-	1	2	-	-	-	-	-	-	1	-	-	-	-
Thayer's Gull	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iceland Gull	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glaucous Gull	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-
Band-tailed Pigeon	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Rock Dove	106	96	730	303	268	186	257	81	64	116	280	67	12	-	-
Eurasian Collared-Dove	-	-	-	-	-	-	-	-	OB	-	-	-	-	-	-
Mourning Dove	4	-	1	73	19	2	OB	-	0	-	28	3	18	-	-
Eastern Screech-Owl	-	-	-	-	1	-	1	-	OB	-	-	-	-	-	-
Great Horned Owl	-	-	1	7	1	5	3	-	OB	-	1	0	-	-	0
Snowy Owl	-	-	-	-	-	-	0	-	OB	-	-	-	-	-	-
Barred Owl	2	1	2	-	1	-	-	-	-	2	-	-	-	-	-
Great Gray Owl	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
Long-eared Owl	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Short-eared Owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Saw-whet Owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belted Kingfisher	-	-	-	3	4	3	-	-	-	-	2	-	-	-	-
Red-headed Woodpecker	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-
Red-bellied Woodpecker	11	6	-	46	20	5	1	6	-	-	38	-	-	-	-
Yellow-bellied Sapsucker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Downy Woodpecker	21	30	142	129	75	54	18	22	4	20	72	10	8	152	4
Hairy Woodpecker	19	21	43	52	24	21	15	4	OB	10	31	10	13	39	6

Table 4. Total number of species for each location of the 2002–03 Minnesota CBC, Crosby through Itasca State Park. Data include Count Day observations from Minnesota only. OB = out of state boundary. Value of 0 is a Count Week observation. CROSB = Crosby, DLAKE = Detroit Lakes, DULUT = Duluth, EXCEL = Excelsior, FRMNT = Fairmont, FRGMH = Fargo-Moorhead, FARIB = Faribault, FERGS = Fergus Falls, GFEGF = Grand Forks-East Grand Forks, GRRAP = Grand Rapids, HASTE = Hastings-Etter, HIBBG = Hibbing, IFALL = International Falls, ISBEL = Isabella, ITSCA = Itasca State Park.

Species	CROSB	DLAKE	DULUT	EXCEL	FARIB	FERGS	FRGMH*	FRMNT	GFEGF*	GRRAP	HASTE*	HIBBG	IFALL	ISBEL	ITSCA
Black-backed Woodpecker	-	-	3	-	-	-	-	-	-	-	-	-	-	12	1
Northern Flicker	-	-	-	9	13	3	OB	5	1	-	7	-	-	-	-
Pileated Woodpecker	14	8	12	9	5	8	2	-	1	7	4	2	4	18	1
Northern Shrike	4	-	8	2	2	4	1	-	OB	1	2	-	1	3	-
Gray Jay	-	-	2	-	-	-	-	-	-	20	-	21	14	77	2
Blue Jay	159	47	35	179	129	60	10	27	OB	45	212	68	77	130	80
Black-billed Magpie	-	-	-	-	-	-	OB	-	OB	-	-	-	3	-	-
American Crow	118	17	667	634	427	258	122	257	260	51	389	-	29	3	5
Common Raven	2	-	38	-	-	-	-	-	-	24	-	15	124	74	45
Horned Lark	-	-	-	-	-	-	-	12	OB	-	-	-	-	-	-
Black-capped Chickadee	549	172	2,263	796	310	342	129	29	4	297	351	149	197	717	175
Boreal Chickadee	-	-	-	-	-	-	-	-	-	-	-	-	4	34	-
Tufted Titmouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Red-breasted Nuthatch	1	-	219	-	-	-	1	-	OB	3	4	10	34	562	19
White-breasted Nuthatch	174	54	124	212	101	112	54	16	9	40	103	21	18	7	28
Brown Creeper	1	-	6	9	14	4	1	4	OB	-	12	-	-	1	-
Carolina Wren	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
Winter Wren	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marsh Wren	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golden-crowned Kinglet	1	-	2	-	-	-	-	-	0	-	-	-	-	-	-
Ruby-crowned Kinglet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eastern Bluebird	-	-	5	9	0	-	-	-	-	-	3	-	-	-	-
Townsend's Solitaire	-	-	-	-	1	-	-	-	0	-	-	-	-	-	-
Hermit Thrush	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
American Robin	1	-	1	131	73	115	4	-	4	-	30	-	-	-	-
Varied Thrush	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-
European Starling	217	30	566	988	1,144	487	190	461	OB	156	2,188	37	46	-	7
Gray Catbird	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bohemian Waxwing	119	-	313	-	-	-	1	-	-	26	-	-	69	-	-
Cedar Waxwing	139	-	9	397	94	204	45	0	30	48	50	-	-	-	-
Yellow-rumped Warbler	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Eastern Towhee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
American Tree Sparrow	42	4	-	180	127	184	OB	41	OB	-	152	-	-	-	-
Chipping Sparrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fox Sparrow	-	-	-	4	0	-	OB	-	OB	-	-	-	2	-	-
Song Sparrow	-	-	-	-	0	-	1	7	-	-	-	-	-	-	-
Lincoln's Sparrow	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-
Swamp Sparrow	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
White-throated Sparrow	-	-	6	5	2	1	OB	-	1	-	-	-	-	-	-
Harris's Sparrow	-	-	-	-	-	1	-	1	OB	-	-	-	-	-	-
White-crowned Sparrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dark-eyed Junco	16	85	55	318	288	156	36	78	18	-	508	-	1	-	1
Lapland Longspur	-	-	-	-	-	-	-	-	OB	-	-	-	-	-	-
Snow Bunting	29	-	1	-	-	-	2	-	OB	46	-	-	-	-	-
Northern Cardinal	2	-	15	182	88	6	OB	5	-	0	125	-	-	-	-
Red-winged Blackbird	-	-	-	-	-	-	-	-	OB	-	-	-	-	-	-
Rusty Blackbird	-	-	-	-	1	-	-	-	OB	-	-	-	-	-	-
Common Grackle	-	-	-	-	3	1	OB	1	OB	-	-	-	-	-	-
Brown-headed Cowbird	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-
Pine Grosbeak	-	-	-	-	-	-	-	-	-	-	-	2	6	48	-
Purple Finch	4	12	106	36	13	-	OB	-	1	-	-	15	83	180	8
House Finch	26	27	93	143	77	69	13	14	OB	-	188	6	-	-	-
Red Crossbill	2	-	15	-	-	-	-	-	-	-	-	-	1	106	-
White-winged Crossbill	33	-	214	-	-	-	-	-	-	-	-	-	7	206	6
Common Redpoll	-	2	29	-	-	1	OB	-	OB	-	-	-	2	42	4
Pine Siskin	-	-	5	-	1	-	-	-	-	-	1	2	22	55	-
American Goldfinch	71	14	178	126	84	13	2	24	6	27	31	90	182	106	91
Evening Grosbeak	-	-	-	-	-	-	-	-	-	-	-	-	100	278	84
House Sparrow	371	697	196	731	459	299	379	218	87	228	531	50	13	-	15
Red-shafted Flicker	-	-	-	-	-	-	OB	-	-	-	-	-	-	-	-
Dark-eyed (Oregon) Junco	-	-	-	-	-	-	-	-	OB	-	-	-	-	-	-
merganser sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
buteo sp.	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
grouse sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-
woodpecker sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
blackbird sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
crossbill sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-
Count Day	35	23	52	62	49	43	33	32	16	23	52	18	33	26	25
Count Week	0	0	0	0	6	3	2	2	6	1	1	3	0	0	1
Full Species	35	23	52	62	55	46	35	34	22	24	53	21	33	26	26
Subspecies/unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Composite List	35	23	52	62	55	46	35	34	22	24	53	21	33	27	26
Out of State	-	-	-	-	-	-	14	-	31	-	0	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum (full species)	2,273	1,359	7,134	15,615	7,093	16,691	4,328	8,671	492	1,187	19,181	578	1,138	2,867	594
Sum (subspecies/genus)	0	0	1	0	0	0	0	0	0	0	0	0	0	15	1
TOTAL INDIVIDUALS	**2,273**	**1,359**	**7,135**	**15,615**	**7,093**	**16,691**	**4,328**	**8,671**	**492**	**1,187**	**19,181**	**578**	**1,138**	**2,882**	**595**

Table 4, continued.

Species	LAMBR	LCRLC*	LFALL	LNGPR	LQPRL	MARSH	MNKTO	MORIS	MPLSN	MTLKW	NEWUL	NWMCL	NWRCO	OWATN	PILGR
Common Loon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pied-billed Grebe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double-crested Cormorant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Great Egret	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Great Blue Heron	-	OB	-	0	-	1	2	-	1	-	-	1	-	-	-
Snow Goose	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Ross's Goose	-	OB	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada Goose	360	75	677	-	111,800	9	1,622	3,967	2,753	595	-	5,068	677	1,188	356
Mute Swan	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Trumpeter Swan	-	OB	-	-	-	-	-	-	-	-	-	-	544	-	3
Tundra Swan	-	-	-	-	-	-	-	1	-	-	-	-	5	-	-
Wood Duck	-	OB	-	-	-	-	1	-	-	-	-	-	-	-	-
Gadwall	-	OB	-	-	-	-	-	-	-	-	-	-	-	-	-
American Wigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
American Black Duck	-	OB	-	-	-	1	-	-	1	-	-	0	4	-	-
Mallard	-	32	52	-	340	7	1,152	354	2,703	4	-	649	849	597	35
Northern Shoveler	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Pintail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Green-winged Teal	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Canvasback	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Redhead	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring-necked Duck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greater Scaup	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lesser Scaup	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
Long-tailed Duck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bufflehead	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common Goldeneye	-	12	9	-	17	-	-	-	60	-	-	-	99	-	-
Hooded Merganser	-	-	1	-	-	-	-	-	-	-	-	0	-	1	-
Common Merganser	-	208	2	-	1	-	-	-	4	-	-	-	28	-	1
Red-breasted Merganser	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Ruddy Duck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bald Eagle	-	41	13	7	8	2	4	2	10	-	1	3	7	-	13
Northern Harrier	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Sharp-shinned Hawk	-	OB	-	0	-	-	1	-	-	-	-	3	2	1	-
Cooper's Hawk	-	OB	-	-	-	-	-	-	1	-	-	-	3	3	-
Northern Goshawk	1	-	-	0	-	-	1	-	-	-	-	-	-	-	-
Red-shouldered Hawk	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Red-tailed Hawk	8	25	9	16	2	4	42	-	17	1	2	8	17	6	3
Rough-legged Hawk	1	OB	2	-	1	-	1	-	2	-	1	-	-	-	6
Golden Eagle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
American Kestrel	1	6	-	3	1	1	2	2	1	3	1	9	4	9	-
Merlin	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-
Peregrine Falcon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gray Partridge	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-
Ring-necked Pheasant	43	-	5	2	39	10	4	4	1	29	1	27	6	14	-
Ruffed Grouse	-	1	1	7	-	-	-	-	-	-	-	-	-	-	2
Spruce Grouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sharp-tailed Grouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greater Prairie-Chicken	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wild Turkey	2	OB	-	12	-	8	8	-	-	-	-	-	-	1	25
American Coot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Killdeer	-	OB	-	-	-	-	-	-	-	-	-	-	-	-	-
Wilson's Snipe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Franklin's Gull	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herring Gull	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
Ring-billed Gull	-	2	-	-	-	-	-	-	29	-	-	-	-	-	-
Thayer's Gull	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iceland Gull	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glaucous Gull	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Band-tailed Pigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rock Dove	183	90	144	364	98	93	348	126	473	38	80	224	323	112	106
Eurasian Collared-Dove	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
Mourning Dove	-	47	-	5	39	1	26	9	15	59	-	23	-	38	5
Eastern Screech-Owl	2	OB	-	-	-	2	-	-	1	-	-	-	-	2	-
Great Horned Owl	3	OB	-	1	-	5	2	-	2	5	-	10	-	1	-
Snowy Owl	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-
Barred Owl	-	1	-	3	-	-	-	-	-	-	-	2	-	-	-
Great Gray Owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Long-eared Owl	-	-	-	-	-	-	0	-	-	-	-	1	-	-	-
Short-eared Owl	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Northern Saw-whet Owl	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-
Belted Kingfisher	3	OB	-	2	1	-	2	-	2	-	-	-	-	1	1
Red-headed Woodpecker	-	2	-	2	-	-	-	-	-	-	-	-	-	3	0
Red-bellied Woodpecker	6	19	5	18	7	12	16	2	10	2	6	23	33	25	8
Yellow-bellied Sapsucker	-	OB	-	-	-	-	-	-	-	-	-	-	-	-	-
Downy Woodpecker	21	23	11	32	29	16	46	19	35	27	18	101	90	79	26
Hairy Woodpecker	16	11	2	26	17	20	15	7	23	11	3	35	24	23	15

Table 5. Total number of species for each location of the 2002–03 Minnesota CBC, Lamberton through Pillager. Data include Count Day observations from Minnesota only. OB = out of state boundary. Value of 0 is a Count Week observation. LAMBR = Lamberton, LQPRL = Lac Qui Parle, LCRLC = LaCrosse-LaCrescent, LFALL = Little Falls, LNGPR = Long Prairie, MNKTO = Mankato, MARSH = Marshall, MPLSN = Minneapolis (North), MORIS = Morris, MTLKW = Mountain Lake-Windom, NEWUL = New Ulm, NWRCO = Northern Wright County, NWMCL = Northwest McLeod, OWATN = Owatonna, PILGR = Pillager.

Species	LAMBR	LCRLC*	LFALL	LNGPR	LQPRL	MARSH	MNKTO	MORIS	MPLSN	MTLKW	NEWUL	NWMCL	NWRCO	OWATN	PILGR
Black-backed Woodpecker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Flicker	1	4	-	-	10	2	4	-	2	-	2	17	-	2	-
Pileated Woodpecker	-	4	-	9	2	2	0	-	5	-	2	7	10	-	16
Northern Shrike	1	-	1	4	1	1	1	1	2	-	-	6	4	-	3
Gray Jay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blue Jay	20	41	88	126	41	39	72	22	50	14	26	153	112	129	134
Black-billed Magpie	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
American Crow	208	253	296	304	50	107	308	87	721	136	69	223	186	676	242
Common Raven	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Horned Lark	101	-	-	-	108	9	-	-	-	87	-	4	-	-	2
Black-capped Chickadee	47	141	100	173	78	75	120	72	218	29	47	198	323	294	379
Boreal Chickadee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tufted Titmouse	-	OB	-	-	-	-	-	-	-	-	-	-	-	-	-
Red-breasted Nuthatch	1	OB	3	1	1	1	-	-	-	-	-	-	-	6	2
White-breasted Nuthatch	20	44	28	80	33	37	35	33	183	17	31	123	114	96	67
Brown Creeper	7	2	4	0	5	2	8	-	1	-	8	25	8	1	3
Carolina Wren	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter Wren	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marsh Wren	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golden-crowned Kinglet	-	-	-	3	-	4	-	-	-	-	-	-	-	-	-
Ruby-crowned Kinglet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eastern Bluebird	-	4	-	-	-	-	-	-	-	-	-	-	8	-	-
Townsend's Solitaire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hermit Thrush	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
American Robin	-	61	2	1	4	1	32	1	7	-	-	9	49	3	-
Varied Thrush	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
European Starling	769	217	164	338	229	187	1,655	135	541	524	684	1,369	1,286	2,070	106
Gray Catbird	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Bohemian Waxwing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	68
Cedar Waxwing	9	18	251	142	13	33	8	8	41	-	2	3	195	4	33
Yellow-rumped Warbler	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eastern Towhee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
American Tree Sparrow	134	55	29	87	79	157	38	55	47	74	24	164	122	141	22
Chipping Sparrow	-	OB	-	-	-	-	-	-	-	-	-	-	-	-	-
Fox Sparrow	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Song Sparrow	-	2	-	-	1	1	-	-	-	1	-	-	-	-	-
Lincoln's Sparrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Swamp Sparrow	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
White-throated Sparrow	1	1	-	-	-	-	1	-	2	-	-	-	-	2	-
Harris's Sparrow	8	-	-	-	-	-	6	-	-	-	-	-	1	-	-
White-crowned Sparrow	1	-	-	-	-	-	-	-	-	0	-	-	-	-	-
Dark-eyed Junco	90	111	69	273	156	44	145	113	162	160	105	486	234	301	88
Lapland Longspur	86	-	-	-	3	-	-	-	-	-	-	33	-	-	-
Snow Bunting	-	-	-	-	5	-	-	-	-	-	-	10	-	-	318
Northern Cardinal	5	25	2	11	5	2	52	1	43	2	15	26	40	46	3
Red-winged Blackbird	35	OB	-	-	9	25	683	1	-	69	-	40	1	6	-
Rusty Blackbird	-	-	-	-	-	-	-	-	-	8	-	-	-	28	-
Common Grackle	-	-	-	-	4	2	10	-	-	11	-	12	3	4	-
Brown-headed Cowbird	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pine Grosbeak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Purple Finch	-	OB	3	82	-	6	-	-	-	-	-	23	-	-	66
House Finch	23	14	3	11	17	15	65	15	62	1	14	126	25	166	1
Red Crossbill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White-winged Crossbill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common Redpoll	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pine Siskin	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
American Goldfinch	7	78	19	81	35	12	25	46	45	24	6	62	59	80	127
Evening Grosbeak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
House Sparrow	291	246	153	259	347	332	279	227	267	420	71	931	743	675	185
Red-shafted Flicker	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Dark-eyed (Oregon) Junco	2	-	-	-	3	1	-	-	-	-	-	-	-	-	-
merganser sp.	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-
buteo sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
grouse sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
woodpecker sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
blackbird sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
crossbill sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Count Day	36	37	31	33	42	40	40	27	45	28	24	40	40	40	37
Count Week	0	0	0	4	0	0	2	0	0	1	0	2	0	0	1
Full Species	36	37	31	37	42	40	42	27	45	29	24	42	40	40	38
Subspecies/unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Composite List	36	37	31	37	42	40	42	27	45	29	24	42	40	40	38
Out of State	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum (full species)	2,515	1,918	2,148	2,485	113,641	1,288	6,843	5,312	8,551	2,358	1,219	10,238	6,241	6,837	2,475
Sum (subspecies/genus)	2	0	0	0	3	2	0	0	0	0	0	0	5	0	0
TOTAL INDIVIDUALS	**2,517**	**1,918**	**2,148**	**2,485**	**113,644**	**1,290**	**6,843**	**5,312**	**8,551**	**2,358**	**1,219**	**10,238**	**6,246**	**6,837**	**2,475**

Table 5, continued.

Species	PINEC	RCHST	RLNWR	ROSEU	SCCLG	SHNWR	SPNES	SPNOR	SXZIM	THRBR	TMNWR	WABAS*	WAREN	WILDR	WILMR	WINON*
Common Loon	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Pied-billed Grebe	-	-	-	-	-	-	-	1	-	-	-	OB	-	-	1	-
Double-crested Cormorant	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Great Egret	-	-	-	-	-	-	-	-	-	-	-	OB	-	-	-	-
Great Blue Heron	-	1	-	-	-	1	1	22	-	-	-	1	-	-	2	1
Snow Goose	-	0	-	-	-	-	-	2	-	-	-	-	-	-	0	3
Ross's Goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Canada Goose	-	21,920	-	-	1,238	497	1,959	2,959	-	0	-	131	-	433	10,301	2,153
Mute Swan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trumpeter Swan	-	-	-	-	-	93	3	-	-	-	2	-	-	4	-	-
Tundra Swan	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2
Wood Duck	-	-	-	-	-	-	0	3	-	-	-	-	-	-	-	-
Gadwall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
American Wigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
American Black Duck	-	2	-	-	-	-	4	7	-	-	-	-	-	-	0	17
Mallard	-	817	-	-	806	1	692	4,526	-	0	6	455	-	-	135	1,268
Northern Shoveler	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Northern Pintail	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	OB
Green-winged Teal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canvasback	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redhead	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring-necked Duck	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Greater Scaup	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lesser Scaup	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2	-
Long-tailed Duck	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-
Bufflehead	-	-	-	-	-	-	-	4	-	2	-	-	-	-	-	-
Common Goldeneye	-	35	-	-	133	-	-	112	-	23	-	67	-	7	7	9
Hooded Merganser	-	-	-	-	1	-	-	-	-	-	-	-	-	-	0	-
Common Merganser	-	10	-	-	-	3	18	9	-	1	-	127	-	5	-	218
Red-breasted Merganser	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Ruddy Duck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bald Eagle	10	18	2	1	15	11	22	29	11	18	13	95	-	14	0	80
Northern Harrier	-	1	-	-	-	1	-	-	1	-	-	2	-	-	-	1
Sharp-shinned Hawk	-	7	-	-	-	-	5	-	-	-	-	1	-	-	1	2
Cooper's Hawk	-	2	-	-	1	-	1	5	-	-	-	3	-	-	1	1
Northern Goshawk	1	-	1	-	-	-	-	-	1	5	-	-	-	-	-	-
Red-shouldered Hawk	-	-	-	-	-	1	6	-	-	-	-	-	-	-	-	-
Red-tailed Hawk	-	69	-	-	6	7	49	23	-	-	1	40	-	12	3	50
Rough-legged Hawk	10	1	24	-	-	-	1	1	13	2	1	6	1	1	-	9
Golden Eagle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
American Kestrel	-	8	-	-	1	-	2	5	-	-	-	10	-	2	-	13
Merlin	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Peregrine Falcon	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-
Gray Partridge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring-necked Pheasant	-	26	1	-	-	-	48	5	-	-	5	4	-	11	12	1
Ruffed Grouse	1	-	10	-	-	3	-	-	3	2	1	2	-	3	-	OB
Spruce Grouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sharp-tailed Grouse	1	-	-	16	-	-	-	-	-	-	-	-	10	-	-	-
Greater Prairie-Chicken	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wild Turkey	-	93	2	-	6	7	154	4	-	-	-	-	-	99	6	39
American Coot	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	4
Killdeer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wilson's Snipe	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	OB
Franklin's Gull	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herring Gull	-	-	-	-	-	-	-	15	-	252	-	3	-	-	-	-
Ring-billed Gull	-	-	-	-	-	1	-	30	-	-	-	-	-	-	-	-
Thayer's Gull	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Iceland Gull	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glaucous Gull	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Band-tailed Pigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rock Dove	41	579	67	36	407	32	339	1,609	37	144	2	222	155	137	39	695
Eurasian Collared-Dove	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mourning Dove	4	294	-	-	-	1	69	39	-	5	-	14	1	20	-	64
Eastern Screech-Owl	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Great Horned Owl	1	9	1	-	-	-	12	2	-	-	-	-	1	-	3	1
Snowy Owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barred Owl	1	6	2	-	1	1	4	-	-	2	-	-	-	1	-	2
Great Gray Owl	-	-	1	-	-	-	-	-	0	-	-	-	-	-	-	-
Long-eared Owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Short-eared Owl	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-
Northern Saw-whet Owl	-	2	-	-	-	-	0	-	-	-	-	-	-	-	-	-
Belted Kingfisher	-	7	-	-	-	-	1	3	-	-	0	-	-	1	1	4
Red-headed Woodpecker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Red-bellied Woodpecker	1	66	1	-	6	7	75	21	-	-	7	22	-	30	15	27
Yellow-bellied Sapsucker	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Downy Woodpecker	12	158	25	3	15	21	236	114	7	32	13	46	9	96	43	52
Hairy Woodpecker	12	43	33	3	13	9	93	47	3	13	14	15	8	25	12	18

Table 6. Total number of species for each location of the 2002–03 Minnesota CBC, Pine County through Winona. Data include Count Day observations from Minnesota only. OB = out of state boundary. Value of 0 is a Count Week observation. PINEC = Pine County, RLNWR = Rice Lake NWR, RCHST = Rochester, ROSEU = Roseau, SXZIM = Sax-Zim, SHNWR = Sherburne N.W.R., SCCLG = St. Cloud-Collegeville, SPNOR = St. Paul (North), SPNES = St. Paul (Northeast Suburban), TMNWR = Tamarac N.W.R., THRBR = Two Harbors, WABAS = Wabasha, WAREN = Warren, WILDR = Wild River, WILMR = Willmar, WINON = Winona.

Species	PINEC	RCHST	RLNWR	ROSEU	SCCLG	SHNWR	SPNES	SPNOR	SXZIM	THRBR	TMNWR	WABAS*	WAREN	WILDR	WILMR	WINON*
Black-backed Woodpecker	-	-	-	4	-	-	-	-	2	1	-	-	-	-	-	-
Northern Flicker	-	6	-	-	3	-	5	4	-	-	-	3	1	1	2	1
Pileated Woodpecker	3	6	11	3	6	6	27	4	-	2	6	6	-	11	3	8
Northern Shrike	1	1	7	6	2	2	4	3	2	5	2	-	-	1	1	2
Gray Jay	1	-	3	-	-	-	-	17	-	-	-	-	-	-	-	
Blue Jay	135	238	208	29	50	82	335	66	39	31	53	90	19	116	69	149
Black-billed Magpie	-	-	-	11	-	-	-	-	1	-	-	-	19	-	-	-
American Crow	361	2,002	154	1	201	237	1,089	1,797	17	184	6	457	13	348	104	445
Common Raven	125	-	47	71	-	-	1	-	71	168	3	-	-	1	-	-
Horned Lark	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Black-capped Chickadee	302	444	431	27	142	123	1,351	616	371	592	124	189	41	317	302	341
Boreal Chickadee	2	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-
Tufted Titmouse	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	7
Red-breasted Nuthatch	21	8	29	-	2	4	22	6	36	83	3	1	-	-	-	-
White-breasted Nuthatch	52	132	64	13	54	31	320	136	9	6	45	56	23	91	93	96
Brown Creeper	1	8	2	-	6	1	7	12	7	2	2	4	-	2	13	4
Carolina Wren	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Winter Wren	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marsh Wren	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Golden-crowned Kinglet	-	-	3	-	7	-	1	-	-	-	-	1	-	-	5	-
Ruby-crowned Kinglet	-	-	-	-	1	-	0	-	-	-	-	-	-	-	-	-
Eastern Bluebird	-	-	-	-	-	-	7	-	-	-	-	13	-	-	10	2
Townsend's Solitaire	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hermit Thrush	-	0	-	-	-	-	-	2	-	-	-	-	-	-	-	-
American Robin	-	59	-	-	2	-	246	79	-	1	-	55	-	5	0	774
Varied Thrush	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
European Starling	126	1,945	71	62	339	5	1,203	759	101	104	-	693	51	441	507	854
Gray Catbird	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bohemian Waxwing	-	-	77	32	-	-	-	-	-	178	-	-	27	-	-	-
Cedar Waxwing	8	276	10	-	18	43	430	40	-	8	-	2	4	217	126	99
Yellow-rumped Warbler	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Eastern Towhee	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
American Tree Sparrow	1	159	74	-	76	72	166	51	2	1	-	219	-	93	46	239
Chipping Sparrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Fox Sparrow	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Song Sparrow	-	5	-	-	-	4	-	1	-	-	-	-	-	-	-	1
Lincoln's Sparrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Swamp Sparrow	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	OB
White-throated Sparrow	-	37	2	-	1	-	2	8	-	3	-	-	-	-	1	18
Harris's Sparrow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
White-crowned Sparrow	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dark-eyed Junco	5	668	1	-	214	120	580	250	-	25	12	505	52	217	107	318
Lapland Longspur	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Snow Bunting	7	50	2	37	-	-	-	-	-	-	5	-	1	-	-	-
Northern Cardinal	0	161	1	0	17	10	376	116	-	2	3	57	2	66	12	92
Red-winged Blackbird	-	35	-	-	-	-	-	1	-	1	-	-	-	-	233	-
Rusty Blackbird	-	1	-	-	1	1	1	-	-	1	-	-	-	-	1	-
Common Grackle	2	30	-	-	-	-	-	1	-	2	-	1	1	2	1	7
Brown-headed Cowbird	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pine Grosbeak	-	-	-	-	-	-	-	-	1	19	-	-	-	-	-	-
Purple Finch	263	7	101	-	1	-	31	1	101	97	36	-	1	21	9	9
House Finch	-	280	32	-	28	-	297	119	-	2	-	28	-	34	77	50
Red Crossbill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White-winged Crossbill	31	-	21	20	-	-	-	-	149	94	-	-	-	-	-	-
Common Redpoll	-	-	-	-	-	-	-	-	-	-	10	-	-	16	-	-
Pine Siskin	-	-	-	-	-	-	3	-	-	1	3	-	-	-	-	2
American Goldfinch	234	254	222	0	30	42	241	175	-	103	162	55	1	89	62	127
Evening Grosbeak	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
House Sparrow	14	1,581	231	221	122	64	454	1,703	74	174	16	673	453	179	64	599
Red-shafted Flicker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dark-eyed (Oregon) Junco	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
merganser sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
buteo sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
grouse sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
woodpecker sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
blackbird sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350
crossbill sp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Count Day	33	53	36	20	37	35	51	57	26	44	28	45	24	39	42	53
Count Week	1	3	0	3	0	0	4	0	1	2	1	0	0	0	5	0
Full Species	34	56	36	23	37	35	55	57	27	46	29	45	24	39	47	53
Subspecies/unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Composite List	34	56	36	23	37	35	55	57	27	46	29	45	24	39	47	53
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum (full species)	1,790	32,576	1,971	599	3,972	1,544	10,997	15,556	1,094	2,394	556	4,379	895	3,169	12,434	8,983
Sum (subspecies/genus)	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	350
TOTAL INDIVIDUALS	**1,790**	**32,576**	**1,971**	**599**	**3,972**	**1,544**	**10,997**	**15,556**	**1,094**	**2,394**	**556**	**4,379**	**896**	**3,169**	**12,434**	**9,333**

Table 6, continued.

Proceedings of the Minnesota Ornithologists' Union Records Committee

Kim R. Eckert, MOURC Chairman

The following records were voted on January-July 2003 and found to be Acceptable (also see Not Acceptable record 2003-16, which partially involved an Acceptable vote).

• Red-throated Loon, 7 June 2003, Moulton Township, Pipestone County (record #2003-32, vote 6–1).

This rare-Regular species was seen only in flight in quite an atypical part of the state, but it was carefully observed and documented by an experienced observer.

• White-faced Ibis, 5 May 2002, Kandiyohi County (record #2003-01, vote 6–1).

• White-faced Ibis, 11 September 2002, Mud Lake, Traverse County (record #2003-03, vote 6–1).

• White-faced Ibis (five individuals), 1 June 2003, Luverne, Rock County (record #2003-31, vote 6–1).

These three records of this now near-Regular species all include descriptions of red eye color, reddish facial skin, and/or white feathering around the bill and eyes. Note that hybrid Glossy x White-faced Ibis have been recently documented in Oklahoma (*North American Birds* 57:136–139), which may complicate the identification and documentation of ibis seen in Minnesota (see the Not Acceptable record below). However, it is not presently known how likely or unlikely it is for presumed hybrids to occur anywhere, nor is it yet known what range of variation such ibis can exhibit with regard to eye color, facial skin color, and white facial feathering.

• Plegadis ibis, sp. (two individuals), 7 September 2002, Island Lake, Lyon County (record #2003-17, vote 6–1).

• Plegadis ibis, sp. (11 individuals), 17 April 2003, Winkler Wildlife Management Area, Jackson County (record #2003-18, vote 5–2).

• Plegadis ibis, sp. (two individuals), 3 May 2003, Bloomington, Hennepin County (record #2003-20, vote 7–0).

These three records involved birds which were either seen in fall, when most Plegadis ibis are difficult or impossible to identify in the field, or birds which were seen only in flight at a distance.

• Black-necked Stilt (two individuals), 25 May 2003, near Montrose, Wright County (record #2003-28, vote 6–1).

The observer apparently was inexperienced with this species and his description is brief, but the documentation adequately describes a species which is very distinctive and difficult to confuse with any other.

• Ruff, 17 May 2003, Bunker Hills Regional Park, Anoka County (record #2003-26, vote 7–0.

The bird was seen by two experienced observers and the documentation includes identifiable photographs.

• Eurasian Collared-Dove, 11 April 2003, near Claremont, Dodge County (record #2003-12, vote 6–1).

Vocalizations of this dove were heard and described, and the bird was photographed well enough to see the diagnostic under tail pattern. Note that several presumably correct identifications of this now essentially Regular species could unfortunately not be accepted (see the Not Acceptable record below) because the possibility of an escaped/released or hybrid Ringed Turtle-Dove was not eliminated. If possible, when observing a collared-dove, it is best to concentrate on seeing and describing the exact pattern of the underside of the outer rectrices, and to listen to and describe any calls given.

• Band-tailed Pigeon, 20 November 2002 – 4 April 2003, near Hastings, Da-

kota County (record #2003-06, vote 7–0).

This bird was seen by numerous observers and photographed during its presence at a feeder for over four months.

• Scissor-tailed Flycatcher, 24–25 May 2003, Two Harbors, Lake County (record #2003-27, vote 7–0).

This individual was seen by numerous observers, and the descriptions provided preclude the possibility of Fork-tailed Flycatcher, the only similar species.

• White-eyed Vireo, 16 May 2003, Frontenac, Goodhue County (record #2003-24, vote 6–1).

The diagnostic song of this species was heard and described well by the experienced observer. Although the bird was not clearly seen, it was observed well enough to tell it was vireo-like in its size, shape, coloration, and behavior, and that it was not a starling, mockingbird, or other mimic.

• Rock Wren, 28–30 April 2003, Mendota Heights, Dakota County (record #2003-22, vote 7–0.

This bird was seen by many observers and photographed.

• Lark Bunting, 23 May 2002, near Dawson, Lac Qui Parle County (record #2003-15, vote 6–1).

This adult male was observed by a very experienced observer who has done field research on the species in Colorado.

• Lazuli Bunting, 26 May 2002, Willmar, Kandiyohi County (record #2003-10, vote 7–0).

• Lazuli Bunting, 31 May 2002, Nisswa, Crow Wing County (record #2003-09, vote 5–2).

• Lazuli Bunting, 31 May 2003, Blue Mounds State Park, Rock County (record #2003-29, vote 7–0).

The two unanimously accepted records were of easily identified and well-documented adult males. The other record, also of an adult male, was documented only by a single photograph without written details, and those dissenting felt the photo was not clear enough to confirm an identification.

• Baltimore Oriole, 27 March 2003, Minneapolis, Hennepin County (record #2003-11, vote 5–2).

This extremely early record involves an adult male which was seen and heard singing. Although the bird was only briefly described, the majority felt the documentation was adequate enough to preclude any other possibilities.

• Great-tailed Grackle, 17–19 April 2003, near Austin, Mower County (record #2003-13, vote 7–0).

• Great-tailed Grackle, 26 April 2003, near Vermilion, Dakota County (record #2003-21, vote 6–1).

• Great-tailed Grackle (six individuals), 31 May – 17 June 2003, Hills, Rock County (record #2003-30, vote 7–0).

All three records include birds which were heard singing, thus eliminating the remote possibility of Boat-tailed Grackle.

The following records were voted on January – July 2003 and were found to be Not Acceptable.

(It is important to be aware that a record which is not accepted only means the provided documentation was not complete or convincing enough to include the sighting in ***The Loon***, the journal of the MOU, or in the MOU's archives of confirmed bird records. Such a vote does not necessarily mean the observer misidentified the bird or that it cannot be included on one's personal list. In this sense, therefore, MOURC is only acting as an editor of the records submitted to the MOU.

Also note a summary of the reasons why a record was not accepted are included. These are, of course, in no way intended to be critical of the observer. The only purpose is instructional: that is, to show the difficulties an observer had in identifying or documenting a bird, so that these can be avoided by other observers when documenting future reports of this and similar species.)

• White-faced Ibis, 4 September 2002, Tyler WMA, Lincoln County (record #2003-16, vote 3–4 as White-faced / vote 7–0 as Plegadis ibis, sp.).

The identification as a White-faced was probably correct, and this was unanimously accepted as a Plegadis ibis, but there was an eight-month delay before a

description was provided. With apparently no field notes written at the time of the observation, the concern is how accurate a description can be when based only on memory after a long period. Additionally, this identification as a White-faced rests primarily on eye color alone, and, as mentioned under the accepted ibis records above, a narrow majority felt that the possibility of a hybrid ibis is not precluded in the description.

• Plegadis ibis, sp. (four individuals), 4 September 2002, Kandiyohi County (record #2003-02, vote 3–4).

This was another narrow decision involving an identification that was probably correct, but again with a brief description coming only from memory after a delay of some months. In this case, the birds were seen only after sunset as distant flying silhouettes, with no plumage features or overall color visible, the birds' sizes as described were unclear, and the observer had difficulty determining if the bills were decurved.

• Black Rail, 22 April 2003, Big Stone National Wildlife Refuge, Lac Qui Parle County (record #2003-19, vote 2–5).

The documentation is well-written and includes a suggestive sketch, but unfortunately this is a very unusual bird that was seen only briefly as it flew away from the observer. "Grayish streaks across back" was the only plumage feature visible, but this is not consistent with Black Rail. The majority felt a better look or vocalizations would be necessary before any reports of this Accidental species could be accepted.

• Ruff, 24 August 2002, near Herman, Grant County (record #2003-04, vote 1–6).

This was yet another sighting with written documentation provided from memory after a delay of a few months. Although a field sketch was made at the time of the observation, it is lacking in detail and could just as easily fit a Pectoral or Stilt sandpiper. The written description is much more detailed than the sketch, but, again, it is based only on memory and still does not clearly show why the bird had to be a Ruff and how other possibilities were eliminated.

• Eurasian Collared-Dove (two individuals), 22 December 2002, Milan, Chippewa County (record #2003-05, vote 0–7).

These were almost certainly correctly identified as collared-doves, but, as the observer states, he was unable to see them well enough to preclude the small possibility of Ringed Turtle-Doves.

• Sprague's Pipit, 20 September 2002, Dayton, Hennepin County (record #2003-07, vote 0–7).

The documentation does not include nearly enough detail to support the identification. The entire description only includes mention that the bird "appeared somewhat lighter" than some adjacent American Pipits and had "light legs/pink." However, no plumage details are included, and American Pipit remains a possibility since this species is variable in plumage and can sometimes have pale-colored legs.

• Great-tailed Grackle, 8 May 2003, Pierce Lake, Martin County (record #2003-23, vote 3–4).

Unfortunately, this was yet another narrow 3-4 decision involving a bird that was probably correctly identified. The identification was based primarily on vocalizations which were heard coming from a grackle-like bird which was not clearly seen or described. Also, the description of this bird's calls only says it "had a buzzy quality similar to a Pine Siskin," which alone doesn't necessarily indicate this species.

• Pine Grosbeak, 29 August 2002, Duluth, St. Louis County (record #2003-08, vote 3–4).

Although brief field notes were taken during the observation, they include only a sketchy description, mention of a "black and white" back pattern, and nothing about the bill shape. However, such a back pattern is inconsistent with Pine Grosbeak, and this back description was changed in the later documentation, which was mostly written from memory more than three months later. The observer also mentions he was unaware how unusually early this would be for this species to appear, and consequently

he adds that he did not examine the bird as closely as he could have.

The efforts of all those observers who document reports of unusual species are appreciated, whether or not those records are accepted. Accordingly, the Committee acknowledges with thanks those who provided documentation for the records listed in this article: Karl Bardon (three records), Jim Barrett, Elizabeth & Tom Bell, Steve Blanich, Brad Bolduan (two records), Paul Budde, Dave Cahlander, Phil Chu, Beth Dillon, Bob Dunlap (two records), Kim Eckert (four records), John Ellis, Chris Fagyal, Steve Falkowski, Bruce Fall, Randy Frederickson (three records), Rick Hoyme, Oscar Johnson, Dennis Martin, Jim Mattsson, John Morrison, Jim Ryan, John Schladweiler, Roger Schroeder (two records), Drew Smith, Jeff Stephenson, Sharon Stiteler, Peder Svingen (two records), Tom Tustison, Bill Unzen, Boak Wiesner.

There were also other observers who documented records of Regular species which were not submitted for a vote to the Committee; although these records are not cited here, their documentations are also appreciated.

The Committee Chairman welcomes questions or comments from MOU members regarding any record in particular or our procedures in general. He can be contacted at the address below (note that it has changed) or by e-mail at <kreckert@cpinternet.com>.

Summary: 30 records voted on — 22 Acceptable, 8 Not Acceptable.

1921 West Kent Road, Duluth, MN 55812.

Bird Mortality at a Loran Tower Site
Baudette, Minnesota

Katherine Haws[1] and Theodore Dick[2]

It is well documented that collisions with tall transmission towers can periodically be the cause of significant bird mortality. Such was the case on 6–7 September 2001, when 235 birds were found dead or injured beneath a Coast Guard Loran tower near Baudette, in Northern Minnesota.

Description of Incident

Baudette is located in Lake of the Woods County, adjacent to the Canadian border. A Coast Guard Loran tower is located seven miles South of Baudette, in Section 6 of T159N, R30W. The tower is 730' high (222.5 m), and the ground elevation in the vicinity is 1,125 feet (342.9 m) above sea level. The steel tower width is 3' x 3' (0.914 m x 0.914 m), with many guy wires. Three sets of non-flashing red lights alternate with three sets of flashing red lights at 100 ft intervals (33 m). The tower is equipped with white strobe lights rather than the red lights of the past (T. Dick, pers ob.). The tower is painted red and white in alternating 100 ft sections. Total power to the tower is 850,000 volts.

Although tower strike mortality can take place in a number of weather conditions, foggy conditions in the late summer or fall, during the migration period, often result in significant bird kills (Crawford

Sora	4	Bay-breasted Warbler	11
Eastern Wood-Pewee	3	Blackpoll Warbler	17
Red-eyed Vireo	16	Black-and-white Warbler	8
Swainson's Thrush	39	American Redstart	20
Tennessee Warbler	41	Ovenbird	11
Nashville Warbler	2	Northern Waterthrush	22
Yellow Warbler	7	Connecticut Warbler	5
Chestnut-sided Warbler	9	Mourning Warbler	4
Yellow-rumped Warbler	15	**Total number of individuals**	**235**
Blackburnian Warbler	1	**Total number of species**	**18**

Table 1. Birds killed at Baudette Coast Guard Tower Site, 6-7 September 2001.

1981.)

An approaching front influenced both the temperature and wind direction on the night of the incident. The maximum temperature on 6 September was 84°F (28.9°C) in the early afternoon. Hourly readings declined steadily after 3:00 P.M. to 67°F (19.4°C) by 7:00 P.M. Temperatures continued to drop overnight and into the next afternoon. The temperature continued to decline, reaching 53°F (11.7°C) by mid-afternoon on 7 September. The wind on 6 September was from the south at 10–20 mph (16–32 kph) until shifting to the north at approximately 5:00 P.M. It remained northerly at 3–12 mph (5–19 kph) overnight, and into the next day. Relative humidity increased to 100% by 7:00 P.M. on the 6th. The tower was probably shrouded in fog overnight and the top remained obscured well into the next day (T. Dick, pers. obs.).

Tom Hanson of the U.S. Coast Guard contacted MNDNR Wildlife in Baudette on the morning of the 7th to report a number of dead birds at the base of the tower. Carcasses were collected by J. Dittrich (MNDNR), T. Hanson and T. Dick, between 9:15–11:30 A.M. that morning. The method of this informal search consisted of walking a grassy area with a radius of approximately 940' (287 m) around the base of the tower, concentrating efforts beneath the tower and to the south where the majority of the carcasses seemed to be located. Preliminary identification of carcasses was made by Dick and Dittrich, with verification by K. Haws. Final disposition of carcasses was with the Bell Museum of Natural History, St. Paul, MN.

Results and Analysis

A total of 235 individual birds of 18 different species was collected (Table 1). The Tennessee Warbler was the species with the greatest number of individuals found (41). Of the 14 warbler species, 13 species breed in northern Minnesota, while the Blackpoll Warbler (17 individuals identified) breeds in far northern Ontario. A large number of Swainson's Thrush (39) was found, and there were 16 Red-eyed Vireos, and 3 Eastern Wood-Pewees among the total.

There were more birds killed during this event than were discovered, both because the salvage effort was not complete, and also because scavenging by avian and mammalian predators may have already occurred prior to salvage. Some injured birds were seen but not captured during the search (J. Dittrich, pers. comm.). Scavenging is known to reduce the number of carcasses fairly rapidly (Crawford and Engstrom 2001).

Discussion

Birds colliding with lighted obstacles at night is not a new phenomenon: reports exist from the nineteenth century of birds flying into lighthouse beacons (Malakoff 2001). The internet website Towerkill.com

reported that on foggy or low cloud-ceiling nights, migrating birds appeared to become attracted to the lights of the towers and mill about them for lack of stronger navigational cues. The large mortality at towers has been chiefly attributed to collisions with the many relatively invisible guy wires used to support the towers (towerkill.com). Tower kills were first documented in the United States in 1949 (Aronoff 1949), and since that time, hundreds of thousands of documented bird kills have been reported, with a total of 230 species reported in these incidents (Shire *et al*. 2000).

Several other papers have documented migration kills at towers in Minnesota. Janssen (1963) noted a kill of 924 birds on 20–21 September 1963, at a 1116 ft (340 m) TV tower in Lewisville, MN. Green (1963) reported 127 birds killed at the Duluth airport tower and at the WDSM television tower 18–19 September 1963. This TV tower in Duluth was listed as being 800 (244 m) feet high. In Ostrander, 1,547 birds were killed at the 1314 ft (400.5 m) KROC tower over a period of a little more than one month in the fall of 1961 (Strnad 1962). All of these observations indicate that the kills occurred in low visibility/fog and during the fall months of September/October.

The Loran tower in Baudette is one of many tall towers located in the state. Towerkill.com reported that there were 92 towers 500 ft in height or greater in Minnesota in 1998. This number has certainly increased with the proliferation of cellular and other communication towers. Construction of High Definition Digital Television towers may further inflate these numbers. While some attempts are being made to reduce the probability of collisions (Malakoff 2001), research both on the mechanisms of tower-induced mortality and on methods to decrease or eliminate that mortality are needed now before the thousands of additional towers that are planned are in place (towerkill.com). Efforts should be made systematically to collect data from several of these tower locations, better to determine year-round impacts on bird populations. It can be concluded that in certain weather conditions and at certain times of the year, migratory songbirds are particularly vulnerable to tower collision mortality. Anyone interested in learning more about bird-tower collisions should also consult http://migratorybirds.fws.gov/issues/towers/towers.htm.

Acknowledgments

Thanks to J. Dittrich for specimen collection, data reporting, and manuscript review and to T. Hanson for reporting the bird kill and for providing information about the Baudette tower. Ann Kessen reviewed the manuscript.

References

Aronoff, A. 1949. The September Migration Tragedy. *Lennaean News-Letter* 3(1):2.

Crawford, R. L. 1981. Weather, Migration and Autumn Bird Kills at a North Florida TV Tower. *Wilson Bulletin* 93:189–195.

Crawford, R. L. and R. T. Engstrom. 2001. Characteristics of Avian Mortality at a North Florida Television Tower: A 29-year Study. *Journal of Field Ornithology* 72(3):380–388.

Green, J. C. 1963. Destruction of Bird Life in Minnesota — September 1963. *The Flicker* 35:112–113.

Janssen, R. B. 1963. Destruction of bird life in Minnesota — September 1963. *The Flicker* 35:110–111.

Malakoff, D. 2001. Faulty Towers. *Audubon* October 2001.

Shire, G. G., K. Brown, and G. Winegrad. 2000. Communication towers: a deadly hazard to birds. American Bird Conservancy Report, 23 pp.

Strnad, F. 1962. Birds Killed at the KROC-TV Tower, Ostrander, Minnesota. *The Flicker* 34:7–9.

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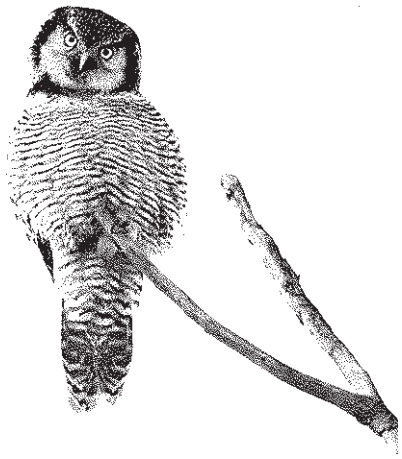
Birding by Hindsight

A Second Look at Bird Identifakation

Kim R. Eckert



Perhaps the title is a bit harsh, but at least it's catchy. More accurately, this discussion is not really about fabricating or faking identifications as it is about making assumptions and guesses as we bird. These "identifassumptions" or "identifiguessings" are much more common than you might think. Some are entirely reasonable to make; others may not be.

Consider, for example, what a group of us saw on a tour of northwestern Minnesota this past Labor Day Weekend. Among our total list of some 160 species were these birds:

Western Grebe (distant)
Double-crested Cormorant (distant)
Great Blue Heron
Black-crowned Night-Heron (distant immatures)
American Wigeon (female-plumaged)
American Black Duck
Blue-winged Teal (female-plumaged)
Green-winged Teal (female-plumaged)
Redhead (distant)
Common Goldeneye (female-plumaged)
Bald Eagle (distant immatures)
American Coot
American Golden-Plover
Semipalmated Plover
Solitary Sandpiper
Spotted Sandpiper
Semipalmated Sandpiper
Least Sandpiper
Pectoral Sandpiper
Wilson's Snipe
Franklin's Gull
Herring Gull (immature)
Common Tern
Black Tern
Common Nighthawk (silent)
Chimney Swift
Ruby-throated Hummingbird (female-plumaged)
Yellow-bellied Sapsucker (briefly)
Northern Flicker (female-plumaged)
Eastern Wood-Pewee (silent)
Least Flycatcher (call notes heard)
Great Crested Flycatcher (silent)
Western Kingbird (distant)
Blue-headed Vireo (silent)
Red-eyed Vireo (silent)
Black-billed Magpie (briefly)
American Crow (silent)
Common Raven
Purple Martin (female)
Cliff Swallow
Black-capped Chickadee (silent)
Eastern Bluebird (distant)
Northern Parula (female)
Northern Waterthrush (silent)
Rose-breasted Grosbeak (immature male)
Red-winged Blackbird
Western Meadowlark (silent)
Brown-headed Cowbird (female)
Orchard Oriole (female)
Baltimore Oriole (female)
Purple Finch (silent)
American Goldfinch (female)

Now, if you look through this list of 52 species, you'll find nothing out of the ordinary or unexpected, given the time of year when migration was in progress, and given that we birded lots of habitats from Thief River Falls to the Canadian border,

from Lake of the Woods to the Red River Valley. However, at the same time I submit to you the possibility exists that all 52 of these birds were misidentified! In other words, nearly a third of our total trip list merely consisted of ID guesses and assumptions. Identifakations, if you will.

But if we really didn't see these species, what were they? Take a second look at the list above, get out your *National Geographic* field guide, and if you ask me to prove we didn't see any of the following birds, I couldn't do it:

Clark's Grebe
Neotropic Cormorant
Gray Heron (Note: There is not yet a confirmed record for North America, but it is considered overdue, and one could easily be overlooked as a Great Blue.)
Yellow-crowned Night-Heron
Eurasian Wigeon
Mottled Duck
Cinnamon Teal (or hybrid Blue-winged x Cinnamon) (Note: It is often impossible to detect a hybrid in the field; some may look like just like one of the "pure" species. However, a majority of the MOU Records Committee generally does not reject documentation because of potential hybridization unless there is something anomalous about the bird to suggest it has hybrid traits.)
Eurasian Teal
Common Pochard
Barrow's Goldeneye
White-tailed Eagle
Eurasian Coot
Pacific (or Greater) Golden-Plover
Wilson's (or Common Ringed) Plover
Green Sandpiper
Common Sandpiper
Western Sandpiper (or Little or Red-necked Stint) (Note: We had excellent looks at many brightly-colored juvenile Semipalmated Sandpipers with extensive and obvious rusty feather edges on the back, tertials, and scapulars; it is both curious and frustrating that no field guide adequately illustrates this plumage, and it's easy to see how birders could misidentify these as Westerns.)
Long-toed (or Temminck's) Stint
Sharp-tailed Sandpiper
Common (or Pin-tailed) Snipe
Laughing Gull
Yellow-legged Gull
Arctic (or Roseate) Tern
White-winged Tern
Lesser (or Antillean) Nighthawk
Vaux's Swift
Black-chinned (or Costa's or Anna's) Hummingbird
Red-naped Sapsucker
Gilded Flicker
Western Wood-Pewee
Gray (or Dusky) Flycatcher
Ash-throated (or Brown-crested) Flycatcher
Cassin's (or Tropical) Kingbird
Cassin's Vireo
Yellow-green Vireo
Yellow-billed Magpie
Fish (or Northwestern) Crow
Chihuahuan Raven
Gray-breasted Martin
Cave Swallow
Carolina Chickadee
Western Bluebird
Tropical Parula
Louisiana Waterthrush
Black-headed Grosbeak (or hybrid Rose-breasted x Black-headed) (Note: See Cinnamon Teal comment above.)
Tricolored Blackbird
Eastern Meadowlark
Shiny Cowbird
Hooded Oriole
Bullock's Oriole (or hybrid Baltimore x Bullock's) (Note: See Cinnamon Teal comment above.)
Cassin's Finch
Lesser Goldfinch

Well, wouldn't that be a trip list to end all trip lists! Certainly, of course, I'm not claiming that anything on this second list was seen. I'm quite confident all of our IDs on the first list were correct. Confident, yes, but I still can't actually prove anything.

To take just one of 52 examples, we did not identify any of the Semipalmated Plovers until we saw them well enough to tell they weren't Killdeer or Piping Plover. So far, so good. But, admittedly, we did not critically examine all of them to see if one might have been a Wilson's Plover. Nor did we ever address the possibility that a Common Ringed Plover might have been in their midst.

So, consciously or unconsciously as we looked over these Semis, we made an educated guess, felt safe in our assumption that no Wilson's or Common Ringed plovers were present, and called them all Semipalmated Plovers. If I can make an-

other assumption, I bet every other Minnesota birder would have done the same thing.

But what about the IDs we made on these birds: distant grebes, immature night-herons, female teal, Semipalmated Sandpipers, Franklin's Gulls, wood-pewees, waterthrushes, grosbeaks, and meadowlarks? Admittedly, we did not see all of them well enough to preclude Clark's Grebe, Yellow-crowned Night-Heron, Cinnamon Teal, Western Sandpiper, Laughing Gull, Western Wood-Pewee, Louisiana Waterthrush, Black-headed (or a hybrid) Grosbeak, or Eastern Meadowlark respectively. Any of these would have been unusual finds, but all of them are possible (certainly more so than a Wilson's or Common Ringed plover), with most having been recorded at least once in northwestern Minnesota.

With these identifications, I'm not so sure everyone reading this would have made the same assumptions. It's certainly possible that some would choose the cautious route and list those silent meadowlarks in the farmlands along the North Dakota border as just "meadowlark, sp.", rather than assume they were all Westerns. But would these same birders exercise the same caution with a silent wood-pewee, take into account the fact that Westerns have been documented there, and not assume it was an Eastern?

Or, some birders might have taken the time to get close enough to every distant night-heron to confirm none was an out-of-range Yellow-crowned. But would this be time well spent? Would it be better to save time and effort and just list them all as Black-crowneds? And, if you would take the latter course, would your answer be the same if you were birding in Fergus Falls? Or in St. Cloud? Where do you draw the line?

Look again at the above lists. Most readers might find it totally ridiculous to think that Gray Heron, Mottled Duck, White-tailed Eagle, Gilded Flicker, Yellow-green Vireo, Yellow-billed Magpie, Tropical Parula, and others could ever occur anywhere near Minnesota. Be reasonable, they might say: just go ahead and list Great Blue Heron, American Black Duck, immature Bald Eagle, female Northern Flicker, Red-eyed Vireo, Black-billed Magpie, female Northern Parula, etc. without worrying about any possibility of those "impossible" birds.

But, again, where do you draw the line? Consider, for example, Lesser Nighthawk, Vaux's Swift, Carolina Chickadee, Western Bluebird, Shiny Cowbird, and Lesser Goldfinch, among others. There may be no Minnesota records for any of these, yet all have been confirmed in nearby states/provinces. With this in mind, is it OK to assume or guess that every nighthawk, swift, chickadee, bluebird, cowbird, and goldfinch you see without close and critical examination is safe to list as Common, Chimney, Black-capped, Eastern, Brown-headed, and American?

The examples seem endless, even if you disregard species from other continents that would be "impossible" in North America. Paging through my European field guide, I find something called a Dalmatian Pelican (*Pelecanus crispus*) from the eastern Mediterranean, which looks a lot like our American White Pelican. For the moment, though, let's not worry about pelican ID.

But look at the following list of species pairs, get out your *National Geographic* field guide again, and refer to these birds' illustrations and range maps. (Also look again at the paired lists of 52 species above.) The first species is the more likely bird of the two to occur in Minnesota — some are Regular species; others are Casuals or Accidentals. All the species listed second occur in the U.S./Canada, or at least have occurred as vagrants, and all but a few are in *Geographic*. Assume for the moment that you find a bird in question, but it is not seen or heard well enough to definitely distinguish it from the second one of the pair.

Then ask yourself when you would consider it acceptable to assume the first species is what you are seeing and the second is safe to disregard: Always? Never? Sometimes? If sometimes, would this depend on the season, on where you are

in Minnesota, or on how well the bird is seen or heard?

Pacific Loon / Arctic Loon
Common Loon / Yellow-billed Loon
Magnificent Frigatebird / Great or Lesser frigatebird (Note: There are two accepted sight records of frigatebirds in Minnesota; although neither documentation ruled out the remote possibility of another frigatebird species, a majority of the MOU Records Committee accepted these as Magnificents.)
Snowy Egret / Little Egret
White-faced Ibis / Glossy Ibis or hybrid (Note: See Cinnamon Teal comment above. There are recent records of a few hybrid ibis seen in Oklahoma, and a minority of the MOU Records Committee currently takes this potential for hybridization into account when evaluating records. However, the range of field marks exhibited by these hybrids is not yet known, nor is it currently known if the potential for the occurrence of hybrids is widespread or limited.)
Greater White-fronted Goose / Lesser White-fronted Goose
Snow Goose / Ross's Goose
Trumpeter Swan (summer) / Tundra Swan
Greater or Lesser scaup (female) / Tufted Duck
King Eider (female) / Common Eider
Willow Ptarmigan (female) / Rock Ptarmigan (Note: Although the most recent ptarmigan record in Minnesota was of a Rock Ptarmigan, all previous records were of Willows.)
Greater Prairie-Chicken / Lesser Prairie-Chicken
King Rail / Clapper Rail
Whimbrel / Bristle-thighed Curlew
Hudsonian Godwit / Black-tailed Godwit
Purple Sandpiper / Rock Sandpiper
Short-billed Dowitcher (July) / Long-billed Dowitcher
Long-billed Dowitcher (October) / Short-billed Dowitcher
Parasitic Jaeger / Pomarine or Long-tailed jaeger
Bonaparte's Gull / Black-headed Gull
Thayer's Gull / Iceland Gull
Great Black-backed Gull / Western or Slaty-backed or Kelp gull
Least Tern / Little Tern
Eurasian Collared-Dove / Ringed Turtle-Dove or hybrid (Note: See Cinnamon Teal comment above. The MOU Records Committee generally does not accept documentations of Eurasian Collared-Doves which do not preclude the possibility of Ringed Turtle-Dove.)
Common Ground-Dove / Ruddy Ground-Dove
Black-billed Cuckoo (northern Minn.) / Yellow-billed Cuckoo
Groove-billed Ani / Smooth-billed Ani (Note: A few of Minnesota's anis were not seen well enough to preclude the remote possibility of Smooth-billed Ani; these currently are filed as unidentified ani, sp.)
Eastern Screech-Owl / Western or Whiskered screech-owl
Barred Owl / Spotted Owl
Whip-poor-will (silent) / Chuck-will's-widow
Rufous Hummingbird / Allen's Hummingbird
Red-bellied Woodpecker / Golden-fronted Woodpecker
Scissor-tailed Flycatcher / Fork-tailed Flycatcher
Northern Shrike (January) / Loggerhead Shrike
Loggerhead Shrike (July) / Northern Shrike
Pygmy Nuthatch / Brown-headed Nuthatch
Blue-gray Gnatcatcher (female) / Black-tailed or Black-capped gnatcatcher
Gray-cheeked Thrush / Bicknell's Thrush
Brown Thrasher / Long-billed Thrasher
Cedar Waxwing (July) / Bohemian Waxwing
Black-throated Green Warbler (female) / Golden-cheeked Warbler
Mourning Warbler (female) / MacGillivray's Warbler
Summer Tanager / Hepatic Tanager
Eastern Towhee / Spotted Towhee or hybrid
Nelson's Sharp-tailed Sparrow / Saltmarsh Sharp-tailed Sparrow
"Gray-headed" Dark-eyed Junco / Yellow-eyed Junco
Lapland Longspur (female) / Smith's or McCown's or Chestnut-collared longspur
Snow Bunting / McKay's Bunting
Indigo Bunting / hybrid Indigo x Lazuli Bunting (Note: See Cinnamon Teal comment above.)
Great-tailed Grackle / Boat-tailed Grackle (Note: A majority of those on the MOU Records Committee generally accepts documentations of Great-tailed Grackles even if they do not preclude the remote possibility of Boat-tailed Grackle.)
Gray-crowned Rosy-Finch / Brown or Black rosy-finch
Common Redpoll / Hoary Redpoll
Pine Siskin / female Eurasian Siskin

Whenever possible, of course, it's always best to see and study every bird well enough to make a conclusive ID and eliminate all guesses and assumptions. And no one is suggesting that you'd ever want to assume the identity of a distant or briefly-seen scaup or yellowlegs. But keep in mind there are lots of times when we make identifiguessings and identfassump-

tions which are entirely appropriate. Keep in mind as well that there may be no right or wrong answer when you wonder if it's OK to make such an ID.

So, the next time a big ol' American White Pelican flies off into the sunset, stop and ask yourself these three questions:

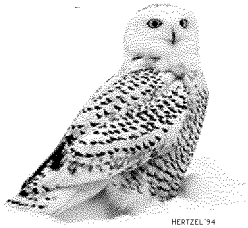
1) Why couldn't it have been a Dalmatian Pelican?

2) Why am I wasting my time asking such a dumb question?... of course it's an American White Pelican!

3) Or, on second thought, how dumb a question is it?

And, if you actually find yourself getting as far as asking question #3, perhaps it's time to take up a new hobby.

1921 West Kent Road, Duluth, MN 55812.



Book Reviews

A Birder's Guide to Minnesota, fourth edition, by Kim R. Eckert. Gavian Guides, 1921 West Kent Road, Duluth, MN 55804. $22.95. 258 pages, index, numerous maps, and photographs.

This fourth edition is a major rewrite of the third edition with every page changed in some way. It is a spiral-bound, soft cover book containing 243 pages of text with 13 black and white photos and over 200 maps.

The first edition was published in 1974. This was a printing of 2,000 copies, center-stapled binding, and its gray cover had a Northern Hawk Owl on it. Page size was similar to ***The Loon***. There were very few maps and the book was organized by seasons.

The second edition was in 1983; a printing of 3,000 and spiral bound, its beige cover again had a Northern Hawk Owl on it. Page size was 8.5" x 11", its format was pages with text typed and maps pasted in, similar in content and layout to later editions but more limited and relatively "crude" in appearance.

The third edition (1994), with a printing of 4,000, has a cover picture of a Great Gray Owl, precedes my review edition and forms the basis of my comparisons.

The book is written to meet the needs of a birder in Minnesota. It is divided into four sections — the introduction, and the state's counties broken into three regions (the west, southeast, and the northeast). The introduction covers the geography, weather, and specialty birds that can be expected in the state. A state map of biomes covers an entire page, and a section is devoted to suggestions for birding trips in summer, winter, spring and fall. A list of referrals to Minnesota bird books, clubs, and hotlines is provided.

The book works well at providing details important to birders. An annotated list of birds is expanded in this version and makes a valuable contribution, especially the comments on the current status of birds with tips on identification. These sections are concise and well phrased; they won't bog you down as you scan for information. If you are a birder in this state, this book is a "must have." If you own one of the three earlier editions, I recommend that you "upgrade" to this version. Here are the most significant improvements I noted:

1. The cover photo is a beautiful color

shot of a Great Gray Owl taken by Minnesota birder/photographer Dudley Edmundson.

2. The maps were created from the same sources as the last edition, DOT county base maps, but due to significant improvements in printing processes, the maps are much more readable.

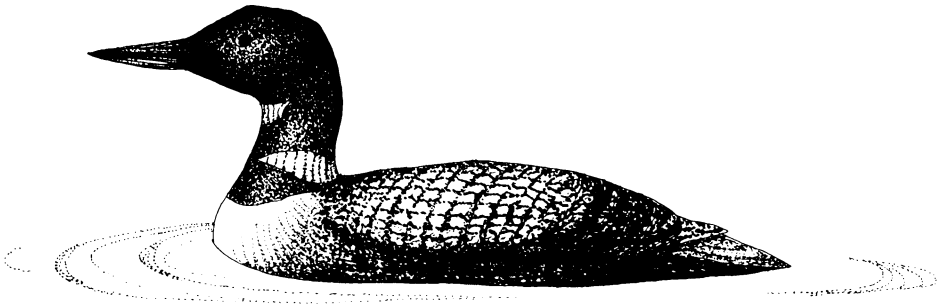
3. The regional breakouts (west, southeast and northeast) have a new feature — principal birding locations by season. This contains the list of sites with location maps to visit in winter, during migration and during the summer/breeding season.

4. Directions and specific maps are more numerous, to the point, and well placed in the county details.

The book's content changes are many, with every county rewritten to some extent. I noted five blocks of text changed for Pine County. The additions direct me to look for specific species in specific locations and give directions to the largest sewage ponds in the county. These changes are significant, and this county only has two pages in the book. I encourage you to review what is new for the areas you know well.

Whether you are new to birding or if you are going to the North Shore for the tenth time this year, this should be your reference standard. Every library and car needs one. Get it. There are plans to publish regular updates, including corrections and additions in *Minnesota Birding* and on the MOU website. This version is a great improvement in detail and functionality, and yet it is only eight pages longer than the third edition. I think Eckert has succeeded in taking a successful and useful reference tool and enhancing it. My only criticism is that the cover is likely to tatter and tear like my old one from being jammed in briefcases and car trunks in all types of weather.

Mark Alt, 3900 – 56th Avenue N., Brooklyn Center, MN 55429.



NOTES OF INTEREST

TRUMPETER SWAN-TUNDRA SWAN INTERACTION — On 4 November 2002, Jerry Bonkoski and I stopped at Big Stone National Wildlife Refuge on our way to do a bird inventory at Big Stone State Park. While at the refuge headquarters we met Doug Buri who informed us that there was a group of swans on the refuge. After our meeting, Doug suggested that we go look at the swans. We found the group, two obvious adults and three obvious juvenile birds.

The birds were resting about 50 yards off the road in the Minnesota

River, which is no more than a narrow creek at this location on the refuge. This location provided us with excellent views of the birds through binoculars and my Leica spotting scope.

At first glance we assumed these were a family group of Trumpeter Swans. Our assumption was challenged immediately when we noticed that one of the adult birds was a typical Tundra Swan with a large yellow spot on the bill just below the eye. The bill of this bird was the size and shape typical for that of a Tundra Swan. It was then that the other bird surprised all three of us. We noticed there was something different about it, and we soon realized that it was a typical adult Trumpeter Swan. The bill was large in proportion to the head, the eye "was part of the bill" and the bill had a straight profile. The head of the Trumpeter was more angular than the smoothly rounded head of the Tundra. On the Tundra Swan the eye was distinct from the bill. All of these characteristics were easy to discern as the two adult birds stood side by side under excellent light conditions — even though the skies were overcast. The juvenile birds, all three, were similar in plumage and they were noticeably smaller than the two adults. Their general plumage was a splotchy grayish-white. The bills were pink with a grayish area at the base.

The birds eventually took flight and while taking off a low OO-OO-OO sound was heard, typical of a Tundra Swan. No Trumpeter "bugle" was heard. The five swans flew about two hundred yards to the south into Lac Qui Parle County and settled on a partially frozen, marshy pond. We followed the birds to this area and had another opportunity to observe them at close range. There we again confirmed all of the field marks that are mentioned above.

Our close approach did not appear to bother the birds to any extent. This appeared to me to be typical of Trumpeter Swan. We noted at this time that the Trumpeter was only a little larger than the Tundra. The back on the Trumpeter was more rounded and the body was more bulky. We could not, even at close range, discern a difference between the two adults as to how the bills joined the head. It was apparent that the border between the bill and head was straight, neither rounded (Tundra) nor pointed (Trumpeter), in both birds. David Sibley in his *The Sibley Guide To Birds* shows this feature as a way to separate the two species.

The two adult birds began bobbing their heads and giving a low peeping sound, which is typical behavior of a Trumpeter Swan. Some swan experts state that only Trumpeters do this head bobbing. At this point it was my impression that we had in front of us a "family" group of swans consisting of one adult and three juvenile Tundra Swans plus one adult Trumpeter Swan. Why were these birds, which normally do not associate this closely with one another, together?

The next day, I asked Steve Kittelson, Trumpeter Swan expert with the Minnesota Department of Natural Resources, about this observation. He found references to Tundra-Trumpeter hybridization and rare to infrequent association between the two species. He thought my description of the individual Trumpeter Swan was one of a small female bird. Trumpeter Swans can vary in size from 20 to 35 pounds and Tundras from 18 to as high as 28 pounds.

I am left with questions about this observation. Was this a case of hybridization? I do not think so because there was no observational evidence of this; all birds appeared to be typical for their respective species. Why was the Tundra Swan participating in the head bobbing display, which is only typical of Trumpeter Swan? And lastly, what brought these five birds together in the first place? I will never know the answers to these questions but this observation certainly proves that birding is a most interesting and challenging sport. **Robert B. Janssen, 162 Lakeview Road, Chanhassen, MN 55317.**

FALL MIGRATION OF THE COMMON TERN IN MINNESOTA — During a 4 November 2001 survey of loons and gulls at Mille Lacs L., Phil Chu and I discovered and documented an adult Common Tern (*Sterna hirundo*) at Vineland Bay, Mille Lacs County. We knew that this was an exceptional date for any *Sterna* species and took detailed notes on its appearance, behavior, and plumage, which were reviewed and accepted by the M.O.U. Records Committee as representing the latest documented record for northern Minnesota (***The Loon*** 74:37, 96). That same fall, Doug Johnson's report of a Common Tern at Lake Bemidji, Beltrami County, on 27 October 2001 was also reviewed and accepted (***The Loon*** 74:118, 162–163).

About one year later, during a 23 October 2002 survey at Mille Lacs Lake, I found and photographed a first-fall Common Tern at the Malone Island bridge near Isle, Mille Lacs County. This tied the 4th latest north date for this species in Minnesota (Table 1). The bird could not be refound during subsequent surveys on 28 October and 2 November 2002. Its bill was dusky with faint orange-red tones. Its irides looked dark and photographs revealed a thin whitish eye-ring that was not noted in the field. Its legs were reddish, with shorter tarsi than Forster's Tern (*S. forsteri*), though no other terns were available for comparison. Its head and neck were white except for a partial black cap on the hindcrown. Its mantle was silvery-gray with an obvious black carpal bar visible at rest and in flight. This carpal bar shows well in some of the photographs, especially in the spread wing photograph, where the generous width of the carpal bar can be ascertained — this helps eliminate juvenile/first-winter Forster's Tern, which shows a relatively thin and indistinct carpal bar.

Its wingtips extended just beyond the tail tip at rest and were shaded darker than the rest of its upperparts. As shown in the photographs, there was brownish edging on some of its scapulars, wing coverts, and tertials. While the bird was preening, its underwing could be seen; this appeared whitish, except for a dusky trailing edge on the outer wing and dark (blackish) on the distal 3 cm or so of the outermost primary. During several brief flights, as the bird circled around the bridge and landed again on the road, its secondaries were carefully scrutinized; these never appeared whitish as on immature Arctic Tern (*S. paradisaea*). Its secondaries were about the same shade of gray as the rest of its upperwing and showed indistinct, dusky subterminal markings. In flight and while preening, its rump and upper tail surface were visible; these were white except for grayish outermost rectrices. Its underparts were entirely white.

Most observers are aware that during spring migration in Minnesota, Common Terns usually arrive later than Forster's Terns (the 20-year median spring arrival dates are 10–14 days later for Common Tern). In contrast, the timing of fall migration for these two species in Minnesota is poorly understood. There is extensive overlap between the latest dates for Common and Forster's terns in Minnesota. However, past reports of extreme arrival and departure dates have rarely been supported by documentation. Seasonal report compilers and editors have accepted reports of either species that fall within established chronological and distributional parameters, but these criteria are largely based on unverifiable data. Distinguishing between Common and Forster's terns can be especially challenging in the fall, when juveniles are encountered and adults are in worn or less familiar plumage.

In southern Minnesota, fall migration data for Common Tern must be interpreted even more cautiously. During some fall migrations (e.g., 1997) there were no south reports of this species, and not infrequently (8 of the past 20 years) there were no south reports after August. Minnesota's 20-year median departure dates for Common Tern are 23 September in the north and 25 September in the south — for Forster's Tern, these are 9 October and 12 October, respectively. This suggests that Forster's Tern not only

Late north	Location	*Loon*	Late south	Location	*Loon*
4 Nov 2001*	Mille Lacs	74:96	20 Nov 1991*	Dakota	64:91
4 Nov 1978	Otter Tail	51:89	30 Oct 1978	Stearns	51:89
27 Oct 2001*	Beltrami	74:118	21 Oct 1977	Dakota	50:147
25 Oct 1996	Mille Lacs L.	69:75	20 Oct 1998	Swift	71:88
23 Oct 2002*	Mille Lacs	75:92	19 Oct 1984	Goodhue	57:95
23 Oct 1966	Cass	38:143	19 Oct 1980	Chippewa	53:92
22 Oct 1983	Aitkin	56:118	18 Oct 1984	Pope	57:95
22 Oct 1977	Mille Lacs L.	50:147	16 Oct 1983	Chippewa	56:118
21 Oct 1984	Lake of the Woods	57:95	13 Oct 1989	Lac Qui Parle	62:80
20 Oct 1984	St. Louis	57:95	13 Oct 1988	Freeborn	61:70

Table 1. Extreme departure dates north (left columns) and south (right columns) for the Common Tern in Minnesota. *Denotes documented record.

arrives earlier in the spring, but also departs later in the fall than the Common Tern. Unfortunately, there are few data showing peak fall migration and no published high counts for either species in fall (Bardon 2002).

Caveats aside, how do the fall migration data for the Common Tern in Minnesota compare to nearby states? North Dakota has multiple records during early September (G. Berkey, unpub. ms.). Record-late for North Dakota was one at Bowman-Haley Reservoir, 19 October 1986 (*American Birds* 41:107). In South Dakota, Common Tern migration typically spans the second half of September; the latest dates include Gregory County, 4 October 1985; Codington County, 8 October 1983; Hughes County, 13 October 1997; and Day County, 15 October 1975 (SDOU 1991, Tallman *et al.* 2002). Iowa's latest dates include 7 October 1995, 8 October 2002, 13 October 1985, 13 October 2001, and 27 October 1985 (Kent and Dinsmore 1996, Kent 2003).

It may be more appropriate to compare the Minnesota data to Wisconsin and Michigan. The latest observations each fall in Wisconsin and Michigan often occur on the Great Lakes. Wisconsin has Common Tern records from 1, 5, 6, 9, 10, and 11 November, followed by one in Brown County, 28 November 1953 and one in Marathon County, 6–7 December 1998 (Bob Domagalski, pers. com.). As in Minnesota, there is significant overlap between extreme dates for Common and Forster's terns in Wisconsin; the latest Wisconsin dates for Forster's Tern are 2, 8, 16, and 25 November, plus 2 January 1971. Recent seasonal reports for Michigan and Wisconsin, published in *Michigan Birds and Natural History* and *Passenger Pigeon* respectively, do not suggest clear differences in the timing of fall migration for these two species. At Whitefish Point Bird Observatory on eastern Lake Superior, Common Terns are usually recorded through mid-October with peak numbers in mid-September, e.g., 752 on 18 September 1997, 695 on 11 September 2000, and 222 on 22 September 2002.

The paucity of data from southern Minnesota, with very few well-documented fall records (see Table 1) and the possibility of misidentifications, makes it very difficult to draw meaningful conclusions about the fall migration of Common Tern vs. Forster's Tern in Minnesota. Observers are hereby encouraged to document (and photograph, if possible) any *Sterna* species seen in Minnesota after the third week of October.

Literature Cited

Bardon, K. J. 2002. *High Counts of Birds in Minnesota*. Minnesota Ornithologists' Union Occasional Papers No. IV. 36 pp.

Kent, T. H. 2003. Tom Kent's Birding Web Page. <http://home.mchsi.com/~thkbirds/>.

Kent, T. H., and J. J. Dinsmore. 1986. *Birds in Iowa*. Self-published, Iowa City. 391 pp.
South Dakota Ornithologists' Union (SDOU). 1991. *Birds of South Dakota*, 2nd edition. South Dakota Ornithologists' Union, Aberdeen. 411 pp.
Tallman, D. A., D. L. Swanson, and J. S. Palmer. 2002. *Birds of South Dakota*, 3rd edition. South Dakota Ornithologists' Union, Aberdeen. 441 pp.

Peder H. Svingen, 2602 East 4th St., Duluth, MN 55812-1533.

A PARTIAL ALBINO BOHEMIAN WAXWING IN LAKE COUNTY — At Beaver Bay, Lake County, I observed a partial albino Bohemian Waxwing on 21 December 2002 associating with a flock of about 60 other Bohemians. It was mottled white and gray over the entire back, the upper surface of the wings (the primaries looked mostly black), and the upper breast. I didn't note the color of the rump. The entire crest was white, but the forehead and cheek retained the typical rufous plumage. The eye mask, throat, and front edge of the forehead were black. The legs and feet were entirely pink, and the bill was pale pink at the base and black at the tip. The eyes were black. The undertail coverts were rufous, the tail was tipped with yellow, and it had the typical yellow and red wing tips of an adult bird. It was probably just an illusion of the white coloration, but the bird looked slightly larger in flight than the other birds in the flock.

Albinistic Cedar Waxwing, 21 December 2002, Beaver Bay, Lake County. Photo by Jim

The bird was very easy to pick out of the flock when it was seen from above with a dark background, but with an overcast sky it was difficult to pick out from below. The bird was still with the same flock on 26 December 2002.

Jim Lind, 320 – 2nd Avenue, Two Harbors, MN 55616.

YELLOW-BREASTED CHAT AT GOOSEBERRY PARK, CLAY COUNTY — At about 7:00 P.M. on 20 May 2003, I was walking a path through the strip of woods between the Red River and the large open area of Moorhead's Gooseberry Park, when I noticed a songbird with a bright yellow throat and breast foraging about 18 inches off the ground in the undergrowth at the edge of the grass. What immediately struck me when I trained my binoculars on the bird was its goggled appearance; it had bold white spectacles set off by at least some dark coloring near the dark bill. Its belly and under-tail coverts were a very clean white, its head, back, wings, and tail were dark olive, and the wings lacked any hint of wingbars. This dark-eyed, warbler-like, but oversized bird with a stocky bill was clearly a Yellow-breasted Chat. I watched the bird for a minute of two from a distance of 60 feet or so, but it disappeared as I tried to approach it, and neither my efforts that evening nor searching by two local birders the next day produced a second look. **Bob O'Connor, 1625 – 3rd St. S, Moorhead, MN 56560.**

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Purpose of the M.O.U.

The Minnesota Ornithologists' Union is an organization of both professionals and amateurs interested in birds. We foster the study of birds. We aim to create and increase public interest in birds, and to promote the preservation of birdlife and its natural habitat.

To carry out these aims, we publish a journal, ***The Loon***, and a newsletter, *Minnesota Birding;* we conduct field trips; we encourage and sponsor the preservation of natural areas; we hold seminars where research reports, unusual observations and conservation discussions are presented. We are supported by dues from members, affiliated clubs and special gifts. Any or all phases of the MOU program could be expanded significantly with gifts, memorials or bequests willed to the organization.

Suggestions to Authors

The editors of ***The Loon*** welcome submissions of articles, Notes of Interest, color slides, and color or black & white photographs. Submissions should be typed, double-spaced and single-sided. Notes of Interest should be less than two pages. Photographs should be 5"x7". Whenever possible, please include a copy of your submission in any standard format on any size computer disk.

Club information and other announcements of general interest should be sent to the Newsletter editors. See inside front cover. Bird sighting reports for each season should be sent promptly at the end of February, May, July and November to Peder Svingen. See key to the "Seasonal Report."

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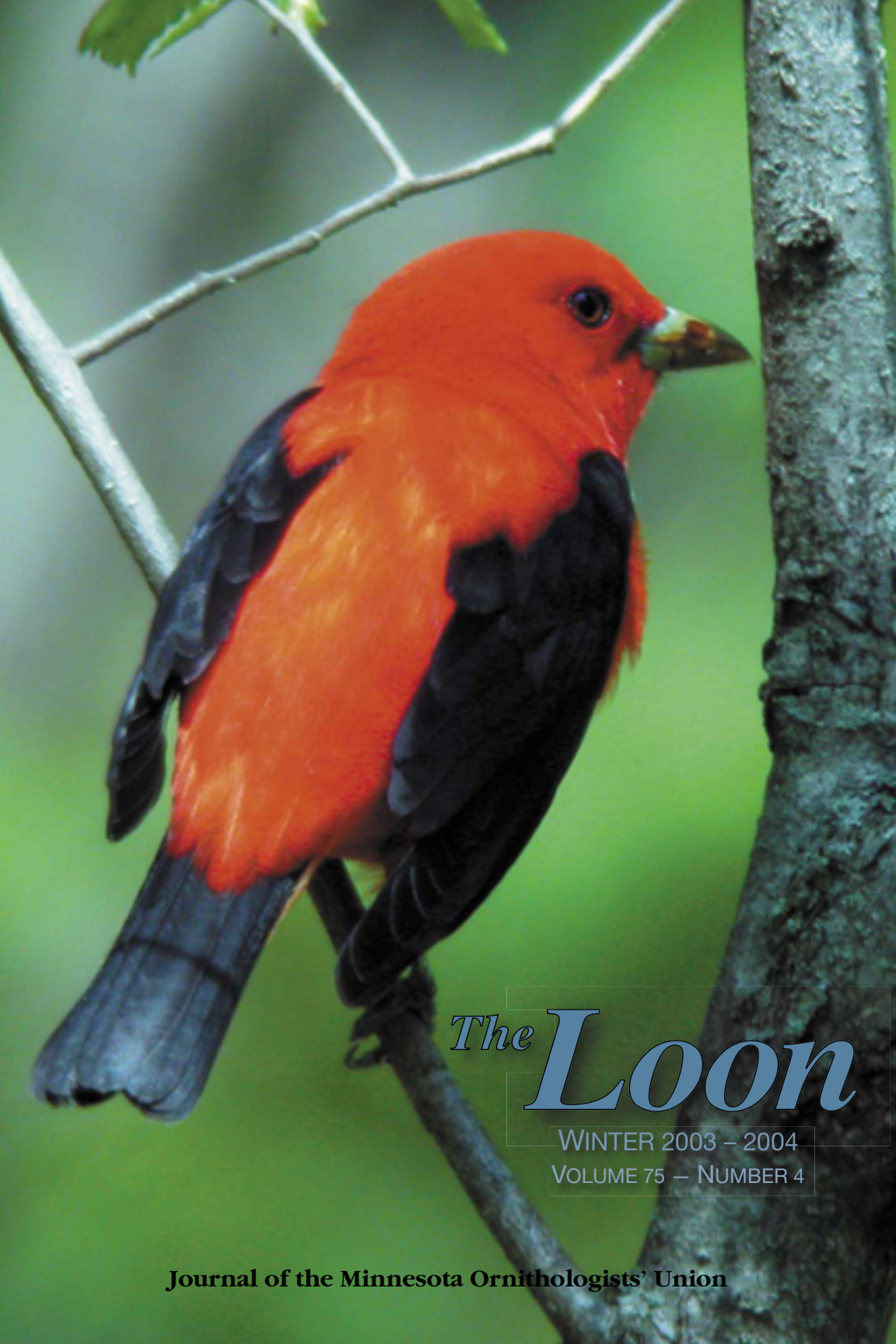

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St. Paul's Champion Peregrine Falcon

Harrison B. Tordoff

The female Peregrine Falcon (*Falco peregrinus*) living on the North Central Life (NCL) Tower in St. Paul, Minnesota, turned 17 years old in 2003. "Meg," named by the people who released her, is one of only four Peregrines known to have lived in the wild beyond 16 years (White *et al.* 2002). Sheltered in captivity from the daily hazards and stresses of falcon life, Peregrines may live for 20 to 25 years, but only one wild female Peregrine in six survives to breed and only one in twenty lives a full decade.

Meg (officially USFWS band 877-42506, project band 12R) hatched in a Peregrine breeding facility owned by Jack Oar of Roscoe, Illinois. She came to the University of Minnesota's Raptor Center at five weeks of age for release, along with 15 other Peregrines, from the Multifoods Tower in Minneapolis. As a fledgling, Meg was the largest of her group. Her parents represented two large-bodied subspecies, *F. p. pealei* from the Queen Charlotte Islands, British Columbia, and *F. p. peregrinus* from Scotland. Peregrines of both races are non-migratory and, true to her ancestry, Meg has spent her entire life, summer and winter, in St. Paul.

The young Peregrines released in Minneapolis in 1986 were notably successful among the many pioneers in establishing a new, post-DDT population of Peregrine Falcons in the Midwest. Ten of the 16 survived to breed, and their descendants now number in the hundreds, but among them Meg reigns as the supreme matriarch, having produced more offspring than any other wild Peregrine known to science.

The Multifoods falcons were released in 1986 by hacking, which involves the provision of food to free-flying young birds at a site where they can perfect their flying and hunting skills until independent. Dispersal of hacked birds usually starts after about a month on the wing. Meg moved the eight miles from Minneapolis to St. Paul in late summer, 1986, and established herself at a newly-installed nest box in the 26th floor plenum of the North Central Life Tower, high above Minnesota Street. She was soon joined by a male, "Cohan" (816-21833), who had been released with her at the Multifoods Tower.

Meg's nesting career started at age two in 1988. She has laid 60 eggs in her lifetime (four in April each year, 1988 through 1999, certainly three and probably four in 2000 and 2001, three in 2002, and one elongated egg in May in 2003). None of her eggs hatched in 2002 or 2003, suggesting that her reproductive career may be complete. Female Peregrines in captivity can be induced (by egg removal) to lay as many as 100 eggs, to fill out annual clutches of three or four. Although they may live longer than wild birds, captive female Peregrines usually cease reproducing at the same age, roughly 15 years.

Meg has had six mates, Cohan in 1987 and 1988 (sired two young), Radar (987-20718) in 1989 (four young), Maverick (816-21949) in 1990 (three young), Beaner (816-21848) in 1990 and 1991 (three young), Spanky (816-21947) from 1992 through 1997 (19 young), and Sota (2206-25407) from 1998 through 2003 (12 young). Sota, like Meg, is still alive in spring 2003. A tantalizing gap in his life story is the loss of four of his eight toes, leaving him equipped with only forceps, the hind toe and outside front toe, on each foot. Were the toes lost by electric shock? Freezing? Disease? We do not know. Despite his handicap, Sota and Meg have produced a dozen young over six seasons.

The overlap of Maverick and Beaner in 1990 resulted from a fight for the nesting territory. Beaner held the NCL terri-

Meg.

tory with Meg in late summer, 1989, but departed for the winter, 1989–90. Maverick moved in and was paired with Meg at NCL in March 1990. On 9 April, with three eggs already in the nest, Beaner returned, ousted Maverick from the territory, and helped Meg hatch and raise the three young sired by Maverick. Parentage was confirmed by DNA fingerprinting (Tordoff *et al.* 1993).

Five of Meg's 43 offspring are known to have bred, fledging 63 young in 28 nestings, and at least one, Kato at the Colonnade in Minneapolis, is still breeding. Meg's five offspring all nested on buildings or bridges; her grand-offspring are nesting on buildings, bridges, smokestacks, and cliffs. Thirteen of Meg's 43 young have been found dead: one was killed in a plane strike at the St. Paul airport, one died of frounce (a fungus disease carried by pigeons), two were poisoned (more below), four died in window collisions, one in a fight with another Peregrine, one was trapped in a pipe, and three died of undetermined causes, a typical sample of Peregrine mortality.

Behind the statistics of Meg's reproduction are the mostly unknown and unrecorded events of her life. In her first autumn in St. Paul, 1986, a young Peregrine assumed to be Meg, killed a pigeon and began to feed on it in the middle of a downtown street. A young boy passing by noted her peril, found an orange traffic cone and placed it near the oblivious falcon to detour traffic. In 1988, Meg picked up a stiff, dead pigeon (presumably poisoned), from a nearby rooftop and carried it to the nest box atop the NCL building. Two of the four chicks there died and Meg twice crashed while trying to fly from the rooftop to the surrounding five-foot parapet, suggesting that she too was poisoned, but survived.

Is there an obvious explanation, beyond luck, for Meg's exceptional career? She has held an excellent territory, rich in prey, with a secure nest on a building owned and operated by people who are interested in Peregrines and have been gracious hosts to both the birds and the scientists studying them. Perhaps Meg's large size is an advantage in defending her territory from other females, but this is only conjecture; we know little about the psychological aspects of Peregrine conflict. Size may confer an advantage in fights between female Peregrines. Meg's year-around residence in St. Paul probably helped, because at several urban sites occupied by migratory female Peregrines, each spring has featured a serious and sometimes lethal encounter between the returning migrant and a new female that has claimed the territory during its winter vacancy.

Although Meg continues to hold a prime territory that is probably coveted by younger females, she appears to be post-reproductive, near the end of a long and distinguished career. Her 60 eggs have resulted in 43 fledglings (nine broods of three, three broods of four, and two broods of two). It is unlikely that wild Peregrines lacking the predator and storm protection of a secure nest box have ever surpassed this reproductive output. Certainly, there is no record of comparable performance. As far as we know, Meg is the world champion Peregrine matriarch.

Acknowledgments

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Literature Cited

Tordoff, H. B., S. M. Moen, P. T. Redig, J. L. Longmire, and D. Foster. 1993. Peregrine Paternity Case. ***The Loon***, 65:107–110.

White, C. M., N. J. Clum, T. H. Cade, and W. G. Hunt. 2002. Peregrine Falcon (*Falco peregrinus*). *In* The Birds of North America, No. 660 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia PA.

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Forest Bird Population Trends in Minnesota 1991–2002

James W. Lind, Nick Danz, Malcolm T. Jones, JoAnn M. Hanowski, and Gerald J. Niemi

The forested regions of the western Great Lakes are among the richest in North America in terms of breeding bird species (Green 1995). For example, there are at least 163 species that have nested in the Superior National Forest (Green 2002), one of the highest numbers for any national forest in the United States. The American Bird Conservancy has included the Superior and Chippewa national forests in their list of Globally Important Bird Areas, based on the presence of rare, threatened, and endangered species and other species of high conservation value (American Bird Conservancy 2002). The forests of southeast Minnesota also have a rich avifauna, including several breeding species, such as the Cerulean Warbler, that rarely occur elsewhere in the state. An increased appreciation of breeding bird diversity, along with concerns about potential declines of some species, has led to a strong interest in monitoring forest bird populations in Minnesota. The relatively heavily forested landscapes of northern Minnesota and Wisconsin are considered to be population "sources" for many forest bird species and may be supplementing population "sinks" in the agricultural landscapes of the lower Midwest (Robinson *et al.* 1995, Howe *et al.* 1996, Temple and Flaspohler 1998). Together these factors suggest that monitoring forest bird populations is essential for the conservation of breeding birds in the Midwest region.

Because forested regions of Minnesota are important, there is a need for regional monitoring programs that can provide localized information on population trends (Green 1995, Howe *et al.* 1997). Large-scale population monitoring programs such as the U.S. Geological Survey's Breeding Bird Survey (BBS) provide important information on trends at a continental scale; however, limited coverage in smaller geographic areas can make it difficult to use BBS data to characterize population trends (Peterjohn *et al.* 1995). Also, continental trends have the potential to mask regional population trends (Holmes and Sherry 1988). A monitoring program on the Chippewa and Superior national forests can provide regional estimates of population trends, as well as help in meeting the USDA Forest Service's mandate to monitor vertebrate populations on their lands (Manley *et al.* 1993).

In response to the need for regional population data, a long-term forest breeding bird monitoring program was established in 1991 in the Chippewa and Superior national forests, in 1992 in the St. Croix region of east-central Minnesota, and in 1995 in southeast Minnesota (Hawrot *et al.* 1998). Surveys in southeast Minnesota were discontinued in 2002 due to lack of funding; however, results from 1995 to 2001 are reported here. Results from this monitoring program have previously been reported in Hanowski and Niemi (1994) and Hawrot *et al.* (1998) and long-term BBS trends from Minnesota were reported in Niemi *et al.* (1995).

Methods

Ten-minute point counts were conducted at each point between June and early July (Reynolds *et al.* 1980). Point counts were conducted by experienced observers trained in point count methodology (Hanowski and Niemi 1995).

The sampling unit in the national forests is a forest stand that is <16 ha (40

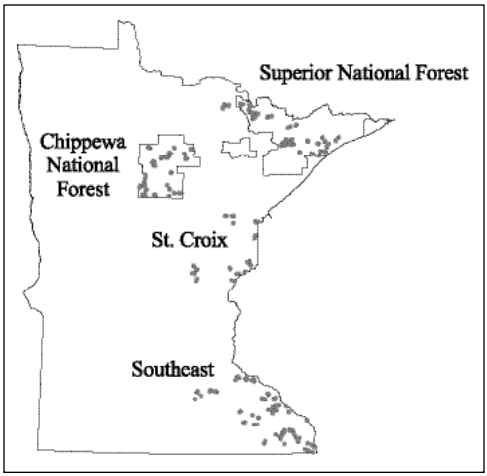

Figure 1. Locations of breeding bird point counts in four regions of Minnesota.

acres), each of which typically includes three individual point counts. A total of 135 and 169 stands (881 survey points) were established in the Chippewa and Superior national forests, respectively. Because stands in the St. Croix region and southeast Minnesota are generally small (<16 ha), only one survey point could be placed in each stand. For these study areas, a stand had to be at least 4 ha (10 acres) in size. A total of 171 and 211 stands (points) were established in St. Croix and Southeast study areas, respectively (Figure 1). All points in the St. Croix region were located on state-owned land. In southeastern Minnesota, 85% of points were on state-owned land, 6% were on county-owned land, and 9% were on private land. The three northern study areas lie within the Laurentian Mixed Forest ecoregion (Bailey *et al.* 1994), which is characterized by boreal deciduous transitional forests. The southeast Minnesota study area is in the Eastern Broadleaf Forest ecoregion, which is characterized by deciduous forests.

For each species, yearly relative abundance was calculated using birds detected within 100 m of each point, excluding birds flying over. To ensure adequate annual coverage, stands were included in the analysis only if they had been sampled in at least six years in the three northern study areas or at least five years in southeastern Minnesota. Trends were calculated for a species if it was observed on a minimum of five stands per study area and in at least three years on each stand.

We used a non-parametric route regression procedure similar to that described by James *et al.* (1996) to characterize population trajectories. For each stand, a nonlinear estimate of trajectory was calculated for each species by using locally-weighted regression (LOESS) to model species abundance as a smoothed function of year. Overall mean relative abundance for each species in each study area was then calculated by averaging the smoothed relative abundance across all stands in each year. To assess whether populations have increased or decreased, we modeled the relationship between mean smoothed values (i.e., relative abundance) and time using simple linear regression. We used the slope coefficient to characterize direction of the trend and the change in mean relative abundance per year. Trends were considered significant at $P \leq 0.05$, although most discussion will focus on trends at $P \leq 0.01$ since these are less likely to change from year to year (Lind *et al.* 2001).

Results

Over the course of 12 field seasons we have detected over 198,000 individual birds of 181 species on more than 13,700 ten-minute point counts in the four study areas. Seventy-two species were tested for trends in at least one study area, including 51 in the Chippewa National Forest, 41 in the Superior National Forest, 40 in the St. Croix region, and 40 in southeast Minnesota (Table 1). Individual species graphs and detailed test statistics are available at: http://www.nrri.umn.edu/mnbirds/reports.htm.

Twenty-eight species increased in at least one study area, including seven that increased in two study areas, and two that increased in three study areas. Twenty-six species decreased in at least one study area, including five that decreased in two study areas, and two that decreased in

Species	Chip. NF (1991–2002)	Superior NF (1991–2002)	St. Croix (1992–2002)	Southeast (1995–2001)	Migration	Nesting	Habitat
Ring-necked Pheasant				ns	PR	Gr	ES
Mourning Dove				ns	SD	Tr	ES
Red-bellied Woodpecker				ns	PR	Cv	DF
Yellow-bellied Sapsucker	D**	ns	ns	ns	SD	Cv	DF
Downy Woodpecker	ns			ns	PR	Cv	DF
Hairy Woodpecker	ns			D**	PR	Cv	DF
Pileated Woodpecker				ns	PR	Cv	DF
Olive-sided Flycatcher	ns				LD	Tr	CF
Eastern Wood-Pewee	D**	D**	D**	I**	LD	Tr	MF
Yellow-bellied Flycatcher	ns	I**	ns		LD	Gr	CF
Acadian Flycatcher				ns	LD	Tr	DF
Alder Flycatcher	ns	ns	ns		LD	Sh	ES
Least Flycatcher	I**	ns	I**		LD	Tr	DF
Great Crested Flycatcher	D*		D*	ns	LD	Cv	DF
Yellow-throated Vireo	ns		ns	ns	LD	Tr	DF
Blue-headed Vireo	I**	ns			LD	Tr	CF
Warbling Vireo				I*	LD	Tr	DF
Red-eyed Vireo	ns	I*	I**	I*	LD	Tr	DF
Blue Jay	ns	ns	ns	ns	PR	Tr	MF
American Crow				I**	SD	Tr	DF
Black-capped Chickadee	I**	I**	ns	I**	PR	Cv	MF
Red-breasted Nuthatch	I*	ns	ns		PR	Cv	CF
White-breasted Nuthatch	ns		I*	I**	PR	Cv	DF
Brown Creeper	ns	ns	I*		SD	Cv	MF
House Wren				I**	SD	Cv	ES
Winter Wren	D**	D**	ns		SD	Gr	CF
Golden-crowned Kinglet	ns	ns	ns		SD	Tr	CF
Ruby-crowned Kinglet		D**			SD	Tr	CF
Blue-gray Gnatcatcher				D*	LD	Tr	DF
Veery	ns	D*	ns	ns	LD	Gr	MF
Swainson's Thrush		I*			LD	Sh	CF
Hermit Thrush	D**	ns	ns		SD	Gr	CF
Wood Thrush			I*	I**	LD	Tr	DF
American Robin	ns	ns	ns	I**	SD	Sh	ES
Gray Catbird	I**		ns	ns	LD	Sh	ES
Cedar Waxwing	I**		I**		SD	Sh	ES
Blue-winged Warbler				D**	LD	Gr	ES
Golden-winged Warbler	ns	ns	ns		LD	Gr	ES
Tennessee Warbler		ns			LD	Gr	CF
Nashville Warbler	ns	ns	ns		LD	Gr	CF
Northern Parula	ns	I**			LD	Tr	CF
Yellow Warbler	D**			ns	LD	Sh	ES
Chestnut-sided Warbler	I**	ns	I*		LD	Sh	ES
Magnolia Warbler	ns	I**			LD	Sh	CF
Yellow-rumped Warbler	ns	ns	ns		SD	Tr	CF
Black-throated Green Warbler	ns	D**	ns		LD	Tr	MF
Blackburnian Warbler	ns	ns	ns		LD	Tr	CF
Pine Warbler	ns	I**			SD	Tr	CF
Palm Warbler	ns				LD	Gr	CF
Black-and-white Warbler	I**	ns	D*		LD	Gr	MF
American Redstart	I**	ns	I**	ns	LD	Sh	ES
Ovenbird	D**	ns	ns	I*	LD	Gr	MF
Northern Waterthrush		ns			LD	Gr	CF
Connecticut Warbler	D**				LD	Gr	CF
Mourning Warbler	D**	ns	D**		LD	Gr	ES
Common Yellowthroat	D*	D**	D**	ns	SD	Gr	ES
Canada Warbler	ns	ns	I**		LD	Gr	MF
Scarlet Tanager	D**	ns	I*	ns	LD	Tr	DF
Eastern Towhee				ns	SD	Gr	ES
Chipping Sparrow	ns	D**		D**	SD	Tr	CF
Field Sparrow				D**	SD	Gr	ES
Song Sparrow	D**	ns	ns	ns	SD	Gr	ES
Swamp Sparrow	ns	I**	ns		SD	Gr	ES
White-throated Sparrow	D**	D*	ns		SD	Gr	ES
Northern Cardinal				ns	PR	Sh	DF
Rose-breasted Grosbeak	ns	D**	ns	ns	LD	Sh	ES
Indigo Bunting	I**		ns	I**	LD	Sh	ES
Red-winged Blackbird				D*	SD	Sh	ES
Brown-headed Cowbird	D**		D*	D**	SD	BP	ES
Baltimore Oriole				ns	LD	Tr	DF
Purple Finch	ns				PR	Tr	CF
American Goldfinch				D*	SD	Sh	ES

Table 1. Population trends for four Minnesota study areas. I = increasing, D = decreasing, ns = Not significant. *P≤0.05, **P≤0.01. *Migration Guilds:* PR = Permanent Resident, SD = Short-distance Migrant, LD = Long-distance Migrant; *Nesting Guilds:* Gr = Ground, Sh = Shrub, Tr = Tree, Cv = Cavity, BP = Brood Parasite; *Habitat Guilds:* ES = Early-successional, DF = Deciduous Forests, CF = Coniferous Forests, MF = Mixed Forests.

three study areas. Four species had both increasing and decreasing trends. Five species had highly significant ($P \leq 0.01$) increasing trends in multiple study areas, and six species had highly significant decreasing trends in multiple study areas (Table 2).

Species with highly significant increasing trends ($P \leq 0.01$) in multiple study areas include the Least Flycatcher, Cedar Waxwing and American Redstart in the Chippewa National Forest and St. Croix region, the Black-capped Chickadee in the Chippewa and Superior national forests and southeast Minnesota, and the Indigo Bunting in the Chippewa National Forest and southeast Minnesota. Species with highly significant decreasing trends ($P \leq 0.01$) in multiple study areas include the Eastern Wood-Pewee in the Chippewa and Superior national forests, and the St. Croix region, the Winter Wren in the Chippewa and Superior national forests, the Mourning Warbler in the Chippewa National Forest and St. Croix region, the Chipping Sparrow in the Superior National Forest and southeast Minnesota, and the Brown-headed Cowbird in the Chippewa National Forest and southeast Minnesota.

Of the 51 species tested in the Chippewa National Forest, 10 (20%) increased significantly and 14 (27%) decreased. Of the 41 species tested in the Superior National Forest, 8 (20%) increased and 9 (22%) decreased. Of the 40 species tested for trends in the St. Croix region, 10 (25%) increased and 6 (15%) decreased. Of the 40 species tested for trends in southeast Minnesota, 11 (28%) increased and 8 (20%) decreased.

Averaged over all study areas, 11.6% of the points have been harvested during the 12 years of monitoring, which is about 1% a year. This harvest rate is comparable to the 4.8% change from mature forest to early-successional types on federally managed lands in northeastern Minnesota during the five-year period between 1990 and 1995 (Wolter and White 2002). Thus, it appears that management activities at our sample of sites are representative of the regional National Forests.

Discussion

The majority of species tested had stable (non-significant) trends. Most species that have increased in multiple study areas, such as the Least Flycatcher, Red-eyed Vireo, Wood Thrush, Cedar Waxwing, American Redstart, Chestnut-sided Warbler, and Indigo Bunting, nest in the shrub or subcanopy layers of upland early- to mid-successional deciduous forests and may be benefiting from current and past management practices that create these habitats. Some of these increasing species have relatively high conservation value in our region (e.g., Wood Thrush and Chestnut-sided Warbler), according to the Partners in Flight (PIF) prioritization scheme (Carter *et al.* 2000). Species such as the Black-capped Chickadee and White-breasted Nuthatch may also be benefiting from a general increase in backyard bird feeding, which could increase survival (Brittingham and Temple 1988). Changing weather patterns could also be affecting nesting chronology (and abundance) of these two permanent residents, but this is difficult for us to evaluate because our surveys start after their peak breeding period. Increasing trends were also documented on the Chequamegon National Forest in northwestern Wisconsin for the Red-eyed Vireo, Wood Thrush, Chestnut-sided Warbler, and American Redstart, using the same methods and personnel (Lind *et al.* 2002)

While most species appear to be stable or increasing, there are a number of species whose declining population trends warrant concern. Species such as the Eastern Wood-Pewee, Winter Wren, and Mourning Warbler have shown consistent declines and may need special research and management consideration. Many of the declining species breed in mature forests (e.g., Eastern Wood-Pewee, Great Crested Flycatcher, Winter Wren, Chipping Sparrow), or are ground-nesters (e.g., Winter Wren, Mourning Warbler, Common Yellowthroat, White-throated Sparrow). Note that there are some decreasing species that also use early-successional forest types (e.g., Mourning Warbler, Common

INCREASING SPECIES

Chippewa NF	Superior NF	St Croix, MN	Southeast MN
** Least Flycatcher	** Yellow-bellied Flycatcher	** Least Flycatcher	** Eastern Wood-Pewee
** Blue-headed Vireo	Red-eyed Vireo	** Red-eyed Vireo	Warbling Vireo
** Black-capped Chickadee	** Black-capped Chickadee	White-breasted Nuthatch	Red-eyed Vireo
Red-breasted Nuthatch	Swainson's Thrush	Brown Creeper	** American Crow
** Gray Catbird	** Northern Parula	Wood Thrush	** Black-capped Chickadee
** Cedar Waxwing	** Magnolia Warbler	** Cedar Waxwing	** White-breasted Nuthatch
** Chestnut-sided Warbler	** Pine Warbler	Chestnut-sided Warbler	** House Wren
** Black-and-white Warbler	** Swamp Sparrow	** American Redstart	** Wood Thrush
** American Redstart		** Canada Warbler	** American Robin
** Indigo Bunting		Scarlet Tanager	Ovenbird
			** Indigo Bunting

DECREASING SPECIES

Chippewa NF	Superior NF	St Croix, MN	Southeast MN
** Yellow-bellied Sapsucker	** Eastern Wood-Pewee	** Eastern Wood-Pewee	** Hairy Woodpecker
** Eastern Wood-Pewee	** Winter Wren	Great Crested Flycatcher	Blue-gray Gnatcatcher
Great Crested Flycatcher	** Ruby-crowned Kinglet	Black-and-white Warbler	** Blue-winged Warbler
** Winter Wren	Veery	** Mourning Warbler	** Chipping Sparrow
** Hermit Thrush	Black-throated Green Warbler	** Common Yellowthroat	** Field Sparrow
** Yellow Warbler	** Common Yellowthroat	Brown-headed Cowbird	Red-winged Blackbird
** Ovenbird	** Chipping Sparrow		** Brown-headed Cowbird
** Connecticut Warbler	White-throated Sparrow		American Goldfinch
** Mourning Warbler	** Rose-breasted Grosbeak		
Common Yellowthroat			
** Scarlet Tanager			
** Song Sparrow			
** White-throated Sparrow			
** Brown-headed Cowbird			

Table 2. Increasing and decreasing species ($P \leq 0.05$) by study area, based on simple linear regression. ** $P \leq 0.01$.

Yellowthroat, White-throated Sparrow), but each of these is a ground-nester. Several of these declining species also have high PIF conservation values (e.g. Eastern Wood-Pewee, Mourning Warbler). Decreasing trends were also documented in the Chequamegon National Forest for the Eastern Wood-Pewee, Winter Wren, and Common Yellowthroat (Lind *et al.* 2002).

Although the landscapes surrounding our northern study areas are primarily forested, there are indications that the landscape is becoming more fragmented in recent years. Wolter and White (2002) used satellite data from northeastern Minnesota between 1990 and 1995 and demonstrated a substantial decrease in patch size and interior forest area and a significant increase in edge density in early successional forest types due to timber harvest. During the 5-year period, the amount of forest area in patches >500 ha decreased between 8% and 13% depending on cover type, and the amount of interior forest area decreased by 10.5%. Edge densities within regenerating forests increased between 24% and 58%. These landscape changes could be acting as a mechanism for some of the trends we have documented. Forest harvest creates appropriate habitats (e.g., clearcuts and forest edges) for many of the species we monitor, especially the increasing species mentioned above. However, studies have shown that nesting success is reduced as landscapes become more fragmented, possibly due to increases in generalist nest predator populations (Robinson *et al.* 1995, Donovan *et al.* 1997). Even in the forested landscapes of the upper Midwest, recent studies have found higher predation rates on ground nests near forest/clearcut edges than in interior areas (Fenske-Crawford and Niemi 1997, Manolis *et al.* 2000, 2002, Flaspohler *et al.* 2001). Hanski *et al.* (1996) found no such relationship in northern Minnesota study sites, but had a relatively small number of ground nesters in their sample. In our monitoring study, none of the species with increasing trends in multiple

study areas are ground nesters, whereas half of the decreasing species are. Forest management practices that increase forest patch sizes and reduce edge densities may be necessary, due to the prevalence of ground-nesting among decreasing species, and the potential effects of increasing fragmentation on nesting success. Management activities directed at individual species, such as retaining coarse woody debris in harvested areas for Winter Wrens (Hejl *et al.* 2002), may also be necessary if population declines continue.

Acknowledgments

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Literature Cited

American Bird Conservancy. 2002. Important Bird Areas of the United States (map). American Bird Conservancy and the National Geographic Society. The Plains, VA.

Bailey, R. G., P. E. Avers, T. King, and W. H. McNab, eds. 1994. Ecoregions and subregions of the United States (map). Washington, D.C.: USDA Forest Service. 1:7,500,000. With supplementary table of map unit descriptions, compiled and edited by W. H. McNab and R. G. Bailey.

Brittingham, M. C., and S. A. Temple. 1988. Impacts of supplemental feeding on survival rates of Black-capped Chickadees. *Ecology* 69:581–589.

Carter, M. F., W. C. Hunter, D. N. Pashley, and K. V. Rosenberg. 2000. Setting conservation priorities for landbirds in the United States: the Partners in Flight approach. *Auk* 117:541–548.

Donovan, T. M., P. J. Jones, E. M. Annand, and F. R. Thompson, III. 1997. Variation in local-scale edge effects: mechanisms and landscape context. *Ecology* 78:2064–2075.

Fenske-Crawford, T. J., and G. J. Niemi. 1997. Predation of artificial ground nests at two types of edges in a forest-dominated landscape. *Condor* 99:14–24.

Flaspohler, D. J., S. A. Temple, and R. N. Rosenfield. 2001. Species specific edge effects on nest success and breeding bird density in a forested landscape. *Ecological Applications* 11:32–46.

Green, J. C. 1995. Birds and forests: A management and conservation guide. Minnesota Department of Natural Resources. St. Paul, MN. 182 pp.

Green, J. C. 2002. Birds of the Superior National Forest: an annotated checklist. Boundary Waters Wilderness Foundation. Minneapolis, MN. 10 pp.

Hanowski, J. M., and G. J. Niemi. 1995. Experimental design considerations for establishing an off-road, habitat specific bird monitoring program using point counts. Pages 145–150. *In* Monitoring bird populations by point counts. Gen. Tech. Rep. PSW-GTR-149. Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture, Albany, CA.

Hanski, I. K., T. J. Fenske, and G. J. Niemi. 1996. Lack of edge effect in nesting success of breeding birds in managed forest landscape. *Auk* 113:578–585.

Hawrot, R. Y., J. M. Hanowski, A. R. Lima, G. J. Niemi, and L. Pfannmuller. 1998. Bird population trends in Minnesota and northwestern Wisconsin forests, 1991–1997. ***The Loon*** 70:130–137.

Hejl, S. J., J. A. Holmes, and D. E. Kroodsma. 2002. Winter Wren (*Troglodytes troglodytes*). *In* The Birds of North America, No. 623 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Holmes, R. T., and T. W. Sherry. 1988. Assessing population trends of New Hampshire forest birds: Local vs. regional trends. *Auk* 105:756–768.

Howe, R. W., G. J. Niemi, G. J. Lewis, and D. A. Welsh. 1997. A standard method for monitoring songbird populations in the Great Lakes region. *Passenger Pigeon* 59:182–194.

Howe, R. W., G. J. Niemi, and J. Probst. 1996. Management of western Great Lakes forests for the conservation of neotropical migrant birds. Pages 144–167 *In* F.R. Thompson III (ed.), Management of Midwestern landscapes for the conservation of neotropical migratory birds. Gen. Tech. Report NC-187. North Central Forest Experiment Station, Forest Service, U.S. Department of Agriculture, St. Paul, MN.

James, F. C., C. E. McCulloch, and D. A. Wiedenfeld. 1996. New approaches to the analysis of population trends in land birds. *Ecology* 77:13–27.

Lind, J., N. Danz, M. T. Jones, J. M. Hanowski, and G. J. Niemi. 2001. Breeding bird monitoring in Great Lakes National Forests: 1991–2001. Natural Resources Research Institute Technical Report: NRRI/TR-2001/39. (available at http://www.nrri.umn.edu/mnbirds/reports.htm).

Lind, J., N. Danz, M. T. Jones, J. M. Hanowski, and G. J. Niemi. 2002. Breeding bird monitoring in Great Lakes National Forests: 1991–2002. Natural Resources Research Institute Technical Report: NRRI/TR-2002/24. (available at http://www.nrri.umn.edu/mnbirds/reports.htm).

Manley, P. N., and Monitoring Task Group. 1993. Guidelines for monitoring populations of neotropical migratory birds on National Forest System lands. U.S. Forest Service Wildlife and Fisheries. U.S. Government Printing Office 1993-720-803/80195.

Manolis, J. C., D. E. Andersen, and F. J. Cuthbert. 2000. Patterns in clearcut edge and fragmentation effect studies in northern hardwood-conifer landscapes: retrospective power analysis and Minnesota results. *Wildlife Society Bulletin* 28:1088–1101.

Manolis, J. C., D. E. Andersen, and F. J. Cuthbert. 2002. Edge effect on nesting success of ground nesting birds near regenerating clearcuts in a forest-dominated landscape. *Auk* 119:955–970.

Niemi, G. J., A. Lima, J. M. Hanowski, and L. Pfannmuller. 1995. Recent trends of breeding birds in Minnesota and Minnesota forested regions, 1966–1993. ***The Loon*** 67:191–201.

Peterjohn, B. G., J. R. Sauer, and C. S. Robbins. 1995. Population trends from the North American Breeding Bird Survey. Pages 3–39. *In* Ecology and management of neotropical migratory birds (T. E. Martin and D. M. Finch, eds.). Oxford University Press, New York.

Ralph, C. J., G. R. Geupel, P. Pyle, T. E. Martin, and D. F. DeSante. 1993. Handbook of field methods for monitoring landbirds. Gen. Tech. Rep. PSW-GTR-144. Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture, Albany, CA. 41 pp.

Ralph, C. J., J. R. Sauer, and S. Droege (eds.). 1995. Monitoring bird populations by point counts. Gen. Tech. Rep. PSW-GTR-149. Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture, Albany, CA. 181 pp.

Reynolds, R. T., J. M. Scott, and R. A. Nussbaum. 1980. A variable circular-plot method for estimating bird numbers. *Condor* 82:309–313.

Robinson, S. K., F. R. Thompson III, T. M. Donovan, D. R. Whitehead, and J. Faaborg. 1995. Regional forest fragmentation and the nesting success of migratory birds. *Science* 267:1987–1990.

Temple, S. A., and D. J. Flaspohler. 1998. The edge of the cut: implications for wildlife populations. *Journal of Forestry* 96:22–26.

Wolter, P. T., and M. A. White. 2002. Recent forest cover type transitions and landscape structural changes in northeast Minnesota. *Landscape Ecology* 17:133–155.

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The Spring Season

1 March to 31 May 2003

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Following the record-high counts at Duluth in May 2000 and May 2001, **Red-throated Loons** were scarce on Lake Superior for the second consecutive spring, but first county records were established in Benton and Lyon counties. Normally a very rare migrant in northeastern Minnesota, **Eared Grebe** was found at Two Harbors, Lake County for the second consecutive spring and one was at the Moose Lake lagoons in Carlton County. **Clark's Grebe** was first found at Thielke Lake in 1991 (***The Loon*** 63:194–196); there are now eight records at this most reliable location. A Clark's Grebe at Agassiz National Wildlife Refuge was the sixth for the refuge, while one at Lake Byllesby was the first for Dakota County. **White-faced Ibis** continued to increase in the state, but rare Regular herons and egrets were especially scarce.

For the third consecutive spring, Karl Bardon conducted the Hastings-Prescott Bird Count. The site and methodology were described in ***The Loon*** 73:231–235. Total hours (183+) of coverage from 14 March through 26 April was comparable to Spring 2001 and increased by about 73% over last spring. Total waterbirds (100,850) was the highest among the three years; adding raptors (4,384) and passerines (15,402) brought the Spring 2003 total to 120,636 birds. Exceptional numbers of **Greater White-fronted Geese** (4,759), **Mallards** (23,424), and **Northern Pintails** (2,222) were tallied. **Bald Eagles** (2,564) and **Ring-billed Gulls** (28,181) were also up significantly from the previous two years. Karl pooled data from all three years and calculated an average of 686 birds/hour at this site; by using only the counts obtained before sunrise and within the first two hours of each day, the average yield increased to 1,215 birds/hour. Frank Nicoletti and Dave Carman conducted the West Skyline Hawk Count in Duluth for the seventh consecutive spring and tallied 25,851 raptors (25,474 last spring) during 432 hours of coverage over a period of 78 days. Highlights included 2,870 **Bald Eagles**, 4 **Swainson's Hawks**, 71 **Golden Eagles**, and a **Parasitic Jaeger**!

An amazing total of **51+ Yellow Rails** was carefully counted along county road 39 at Neal Wildlife Management Area, Norman County; many more birds were probably present as only a small portion of suitable habitat was surveyed. One or two **Common Moorhens** in four locations raised the recent spring average. Drought and drawdowns produced excellent shorebird habitat at Agassiz National Wildlife Refuge and at several locations in the West-central region. In contrast, a drawdown at Mud Lake, Traverse County, proved disappointing due to localized heavy rainfall. **American Golden-Plovers** remained scarce for the *fourth consecutive spring*. The first of several record-high shorebird counts at Agassiz this year was **233 Semipalmated Plovers** on 22 May, nearly all of these at Farmes Pool. **Piping Plover** migration was relatively encouraging for the second consecutive spring, even though the total was only six birds!

A pair of **Black-necked Stilts** in Wright County established Minnesota's fifth record but apparently disappeared soon after their discovery. This species has nested several times in North Dakota (including at Grand Forks), twice in northeastern South

Dakota, and also in Illinois, Michigan, and Wisconsin. It seems likely that one of Minnesota's next records might lead to breeding. Numbers of **American Avocets** and **Willets** were down from last spring. Most of us are thrilled to see even a small flock of **Whimbrels** moving along the North Shore of Lake Superior — imagine yourself finding a flock of 154 at one location and a flock of 72 a few minutes later!

Other shorebird highlights included record-high counts for **Baird's Sandpiper** and **Dunlin**, a **Ruff** in Anoka County, and a statewide total of 103+ **Red-necked Phalaropes**, a species that is usually scarce during spring migration. A total of 690 **Wilson's Phalaropes** in 27 counties was far fewer than last spring's 1785+ in 48 counties, but less alarming compared to Spring 2001's 950+ in 29 counties. This species deserves close monitoring in Minnesota. These shorebird totals and interpretive comments were made possible by the increasing number of observers submitting counts and specific locations — thank you, and please continue to do so!

Neither of the two **Little Gulls** found in Minnesota this spring were adults; the immature at Duluth was discovered just one day after the Hawk Ridge Birdathon. Observers looked at gulls just as often as usual this season, but found no **Lesser Black-backed Gulls**. Referring to the **Eurasian Collared-Dove** in the foreword to the Spring 2002 seasonal report, it was stated, "proof of this species' expansion in Minnesota continues to be plagued by undocumented reports." This unfortunate situation has not improved, as the number of undocumented reports this spring almost equalled the total number of accepted records to date.

Short–eared Owls showed well, but **Boreal Owls** were scarce again in the Northeast. An "almost predictable" **Scissor-tailed Flycatcher** visited the North Shore of Lake Superior in late May. **Loggerhead Shrike** numbers were down from last spring and below the 1992–96 average for the seventh consecutive year. A **White-eyed Vireo** in Goodhue County promptly disappeared and could not be refound. In contrast, and unlike most of its lightning quick appearances in the state, a cooperative **Rock Wren** was seen and appreciated by many observers during its five day stay at Acacia Cemetery, Dakota County. In similar vein, a male **Mountain Bluebird** was easily refound in Kandiyohi County. An influx of up to 21 **Northern Mockingbirds** included no fewer than 8 birds along the North Shore of Lake Superior.

Warbler migration was relatively poor, especially in comparison to Spring 2002. Peak variety in any location was typically 18–20 species, except that Tom Boevers found 24 warbler species in Rice County 14–15 May. **Cerulean Warblers** were in 11 counties as far northwest as Otter Tail, encouraging news for this species of Special Concern. **Worm-eating Warbler** was apparently absent from the state for the second consecutive spring. Two other species of Special Concern in Minnesota, **Louisiana Waterthrush** and **Hooded Warbler**, were reported from eight and four counties, respectively.

Most of this year's **Summer Tanagers** were documented, but only about a third of the **Western Tanagers** and **Spotted Towhees** had details. Documentation is always requested for these and other rare Regular species, as indicated by boldface type on the *Seasonal Report* form. The two undocumented Spotted Towhees were far from their usual spring migration corridor in southwestern Minnesota and both were found later than the usual late April – early May migration window; the possibility of hybridization with Eastern Towhee must always be considered, but especially at unusual locations and dates. **Smith's Longspur** is rarely detected as a spring migrant in Minnesota; two reports this season included an early appearance in Martin County.

A male **Lazuli Bunting** in Rock County and a male **Painted Bunting** videotaped in Pine County both fit established patterns of vagrancy; news of the Painted Bunting was first disclosed on public radio! Less newsworthy was the continuing spread of the **Great-tailed Grackle** to

new locations in southern Minnesota.

Escapes and exotics: **Chukar** 4/28 U.S. highway 169 south of Mille Lacs Lake.

Undocumented Reports: **Pacific Loon** 5/16 St. Louis (Duluth); **Glossy Ibis** 5/28 Becker (Hamden Slough N.W.R.); **White-faced Ibis** 4/21 Anoka (Lino Lakes), 5/3 Traverse (Mud L.); **Mississippi Kite** 5/10 Hennepin (Hyland Park Reserve); **Gyrfalcon** 3/30 Clay; **Eurasian Collared-Dove** 4/2+ Houston (2 at Caledonia), 4/11 Grant (Hoffman), 4/12 Lyon (Minneota), 4/15 Kandiyohi (Willmar), 4/22 Chippewa (2 at Milan), early May Hennepin (Minneapolis), 5/16 Rice (Cannon City), 5/20 Traverse (Wheaton), plus undocumented reports at locations where records were accepted in 2002: 3/17+ Renville (Renville), 4/6–13 Lyon (Russell); **White-winged Dove** 4/24–25 Moose L. near Ely, 5/8 Lake (Fernberg Trail, 5–8 miles east of Ely); **Scissor-tailed Flycatcher** 4/25 & 4/26 Hennepin (different locations); **Hooded Warbler** 5/26 Nicollet; **Summer Tanager** 5/24 Scott (same as June?); **Western Tanager** 5/5 Washington (Montemedi), 5/12–15 Olmsted, 5/23–24 Kanabec (Ann L.), 5/24 Rock (Blue Mounds S.P.); **Spotted Towhee** 5/18 Murphy-Hanrehan Park Reserve (county?), 5/22 Dakota (Lebanon Hills Regional Park); **Black-headed Grosbeak** 4/29–30 Nicollet (male at St. Peter); **Great-tailed Grackle** 4/13+ Jackson (max. 2 at Grover's L.).

Weather Summary: The spring season opened with wintry weather. A snowstorm dropped two to seven inches of snow on 7–8 March over central and southern Minnesota. After prolonged cold during the first half of March, southerly flow brought warmth to the state in mid-March. Temperatures into the 60s were common on the 15th and 16th, and even surpassed 70° in some southern locations. Record-high temperatures included 63° at Mankato, 67° at Rochester, and 57° at International Falls on the 15th, and 60° at Duluth on the 16th. Another system brought some much-needed moisture on 27–28 March; many areas in the Southeast and South-central received around an inch of precipitation, but the amount declined sharply farther northwest. The precipitation fell mainly as snow in the Northeast and North-central, including 8 inches in Grand Marais, 10.1 inches in Duluth, and up to a foot of snow in the vicinity of Warroad and Baudette.

Southern Minnesota returned to winter mode on 7 April, as a snowstorm hit the far southern tier of counties. Some places received about a foot of heavy wet snow; the largest totals included 13 inches in the Albert Lea area, and 12 inches at Blue Earth and Fairmont. The snow was short-lived — a warm spell the next week led to record-high temperatures across the southern two-thirds of the state by the 14th, including 93° at Benson and Montevideo, 89° at Minneapolis/St. Paul airport and St. Cloud, and 85° at Little Falls. Widespread rainfall 15–17 April brought some relief, as portions of central and southern Minnesota received between one and two inches of rain. For the month of April, precipitation exceeded the historical average in central Minnesota and the far Southwest; however, many areas in northern Minnesota failed to receive substantial precipitation and continued the trend from November 2002 through March 2003, one of the driest five-month periods in state history.

Ice-out dates on larger lakes were two to six days earlier than average in the southern two-thirds of Minnesota, but near average in the northern one-third. Representative ice-out dates included 31 March at Lake Pepin, 3 April at Lake Shetek, 12 April at Lake Minnetonka, 22 April at Mille Lacs, 5 May at Rainy Lake, and 6 May at Lake of the Woods.

May 2003 temperatures in Minnesota were near normal to somewhat cooler than normal. Extremes ranged from 11° at Embarrass on 2 May to 86° at Morris on 29 May. Precipitation totals for the month were generally near normal across most of the state, but in portions of the North-central and Northeast, May precipitation still fell short of normal by one half to one inch. In the Twin Cities metropolitan area, precipitation in May exceeded the norm by more than two inches.

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KEY TO THE *SEASONAL REPORT*

1. Upper case (**LEAST TERN**) indicates a Casual or Accidental species in the state.
2. Dates listed in bold (**10/9**) indicate an occurrence either earlier, later, or within the three earliest or latest dates on file.
3. Counties listed in bold (**Aitkin**) indicate an unusual occurrence for that county.
4. Counties with an underline (**Becker**) indicate a first county record.
5. Counties listed in italics (*Crow Wing*) indicate a first county breeding record.
6. Brackets [ ] indicate a species for which there is reasonable doubt as to its origin or wildness.
7. Counts listed in bold (**150**) indicate a total within or exceeding the top three high counts for that species.
8. Dagger "†" preceding observer's initials denotes documentation was submitted.
9. Species documented with a photograph are denoted with "ph".
10. Species documented with a digital photograph or video tape are denoted with "v.t."

The *Seasonal Report* is a compilation of seasonal bird sightings from throughout Minnesota. We particularly invite reports from parts of the state that have been neglected or covered lightly in past reports. To become a contributor, request a report form from the Editor of the *Seasonal Report*, Peder H. Svingen, 2602 E. 4th St., Duluth, MN 55812–1533.

Red-throated Loon — Only three reports from St. Louis (Duluth), all singles: 5/16 *fide* DRB, 5/23 KJB, 5/31 MH. Another L. Superior bird seen 5/31 Cook (Hovland) †DRB. Two exceptional reports away from L. Superior: **4/22 Benton** (2 at Little Rock L.) †HHD, †PCC, 5/17 **Lyon** (Sham L.) †PHS, ph. AXH, RJS.

Common Loon — Reported from 29 south and 27 north counties in all regions. Early south 3/31 Dakota, Hennepin and McLeod, 4/3 Mower RDK, RCK. Early north 4/1 St. Louis JWL, 4/12–13 in nine counties. Peak concentrations 4/18 Dakota (29 at H.P.B.C.) KJB, 4/29 St. Louis (85 at W.S.H.C.) FJN, DSC.

Pied-billed Grebe — Reported from 38 south and 21 north counties statewide. Early south (median 3/9) 3/14 Washington KJB, 3/16–18 in five counties. Early north (median 3/28) 3/25 Kanabec CAM, 3/29–30 in four counties.

Horned Grebe — Observed in 19 south and 11 north counties. Early south (median 3/25) 4/2 Wright RBJ and Hennepin JPM, 4/8 Anoka KJB. Early north (median 4/12) 4/5 Mille Lacs MRN, 4/14 Kanabec CAM. Late south 5/7 Olmsted PWP and Redwood JJS, 5/14 Hennepin WCM. Late

north 5/24 Lake JWL and Pennington JMJ, PHS. Peak count 4/29 Lake (120) JWL.

Red-necked Grebe — Reported from 18 south and 15 north counties and in all regions, though only Cottonwood in the Southwest. Early south 4/3 Chippewa KJB, 4/11 Hennepin PEJ. Early north 4/9 Clay RGj, 4/10 St. Louis NAJ. Peak count 4/30 St. Louis (210) PHS.

Eared Grebe — Seen in 13 south and 8 north counties, and in all regions except the North-central. Arrived later than the recent median (4/8) south: 4/17 Ramsey DPS, 4/20 Waseca LWF. Early north (median 4/23) 4/17 Clay RHO, 4/25 Becker BRK. Unusual locations 5/10–13 Lake (Two Harbors) JWL, PHS, 5/29 Carlton (Moose Lake lagoons) MSS. Peak count 5/22 Marshall (50 at Warren) PHS.

Western Grebe — Observed in 18 south and 10 north counties, though none in North-central. Reported from Hennepin and Dakota in East-central, and Olmsted in Southeast. Early south 4/11 Redwood HHD, 4/12 Big Stone SPM, DKM. Early north 4/20 Clay RHO, 4/21 Todd/Douglas (52 at L. Osakis) BWF. Peak count 5/7 Big Stone (200+ at Thielke L.) BJU. Unusual location 5/25 St. Louis (2 at Park Point, Duluth) AXH, PHS.

Clark's Grebe — All reports: 4/27+ Big Stone (Thielke L.) †PHS, †BJU, m.ob., 5/12 **Dakota** (L. Byllesby) †BRL, †ADS, †JPM, m.ob., 5/30 Marshall (Agassiz N.W.R.) †PLJ.

American White Pelican — Seen in 34 south and 18 north counties. Early south 3/27 Martin JJS, 3/31 Goodhue ADS, peak migration 4/10–13 (9 south counties). Seasonal total of 2250 at H.P.B.C. including 526 on 4/22 KJB. Arrived later than recent median (3/30) north: 4/12 Grant, Otter Tail and St. Louis, 4/14 Lake JEB, RBJ. Total of 111 down from recent years at W.S.H.C. in Duluth (FJN, DSC).

Double-crested Cormorant — Seen in 37 south and 18 north counties statewide. Early south (median 3/19) 3/23 Jackson, Rice and Dakota, 3/28 Olmsted PWP. Seasonal total of 7616 at H.P.B.C. (peak 2067 on 4/15) KJB. Only north report (median 3/30) during March: 3/17 Becker BRK.

American Bittern — Reported from 26 south and 14 north counties, but only Goodhue in Southeast. Early south 4/23 Isanti JJS, 4/24 Redwood JJS. Early north 4/23 St. Louis JRN, 4/26 Aitkin WEN.

Least Bittern — First reported south 5/6 Hennepin OLJ; also observed in Dakota, Freeborn, and Nicollet. All north reports: **5/12** (second earliest date) Clay RHO, late May in Marshall *fide* JMJ.

Great Blue Heron — Seen in 41 south and 26 north counties. Overwintered in Twin Cities area and Winona (see winter report); probable migrants 3/12 Rice TFB, 3/13 Dakota (H.P.B.C.) KJB and Freeborn AEB. Early north 3/16 Cass MRN, 3/23 Hubbard JWP.

Great Egret — Observed in 36 south and 11 north counties, though none in the Northeast. Early south **3/20** Hennepin TAT, 3/24 Rice DAB. Early north 4/4 Grant SPM, DKM, 4/9 Otter Tail DTT, SMT. Numbers up at H.P.B.C. (peak 53 on 4/15) KJB.

Snowy Egret — All reports: 4/19 Swift (near Benson) †MAD, 5/10 Meeker (Greenleaf Twp.) DMF.

Little Blue Heron — All reports: 5/28 **Cook** (Grand Portage) †SVe, SGu, 5/31 **Roseau** (Lost River W.M.A.) †MLa.

Cattle Egret — Statewide total of about 23 birds. Early south 4/15 Chippewa (3) RAE, 4/27 Meeker DMF; also reported in Anoka, Big Stone (three locations), Blue Earth, Dakota, Freeborn, Hennepin, Kandiyohi, Lac Qui Parle †SCl, Pope. Only north reports: 4/22 **Mahnomen** (Waubun) ph. †LZl (***The Loon*** 75:234), 5/6 Traverse KJB.

Green Heron — Reported from 29 south

and 16 north counties. Early south 4/24 Waseca JEZ and Hennepin PEB, 4/26 Rice DAB, FVS. Early north **4/12** (second earliest north) Becker BRK, 4/18 St. Louis *fide* DRB, then no north reports until 5/1 Otter Tail EJE.

Black-crowned Night-Heron — Seen in 12 south, but only 3 north counties. Early south (median 3/29) 4/4 Dakota SWe, 4/7 Hennepin SLC. Early north 4/15 Otter Tail DTT, SMT; also seen in Lake of the Woods BRB, Marshall (peak 50 on 5/18) RBJ, JMJ.

Yellow-crowned Night-Heron — Only report: 4/19–27 Mower (adult at Dobbins Creek in Sutton Park, Austin) ph. JM, RDK, RCK, ph. DDM, m.ob.

WHITE-FACED IBIS — Accepted record 5/17–19 Lyon (6 at Cottonwood) †PHS *et al.* Also see undocumented reports.

IBIS, sp. — Unidentified *Plegadis* 4/17 Jackson (**11** at Winkler W.M.A.) †BRB, 5/3 Hennepin (2 at Bass Ponds) †BAF *et al.*

Turkey Vulture — Reported from 37 south and 23 north counties. Early south (median 3/13) 3/1 Blue Earth ChH, then 3/17–18 in four counties. Early north (median 4/2) 3/23 St. Louis (W.S.H.C., Duluth) FJN, DSC, 3/26 Douglas SWi. Peak counts 3/23 Dakota (67 at H.P.B.C.) KJB, 4/14 St. Louis (174 at W.S.H.C.) FJN, DSC. Also see Table 1.

Greater White-fronted Goose — Seen in 23 south and 4 north counties, and in all regions except the Northeast and the North-central. Early south (median 3/8) 3/13 Freeborn AEB, 3/14–16 in nine counties. Early north 3/23 Traverse and Grant DDM, BJM, 4/3 Traverse (105) KJB. Late south 5/4 Stevens RMD, 5/8 Big Stone (8) BJU. Late north (only May report north) 5/4 Marshall ALE. Peak migration 3/23, including 3206 at H.P.B.C. (seasonal total 4759 individuals) KJB, 2078 in Jackson, Martin and Nobles PEJ, and 1404 in Big Stone, Chippewa, Grant and Traverse DDM, BJM.

Snow Goose — Observed in 27 south and 6 north counties; none in the North-central. Early south (median 3/1) 3/15–16 in nine counties. Peak migration 3/23 (7659 in three Southwest counties) PEJ. Early north (median 3/28) 3/18 Todd BWF, 3/23 Traverse (5000) DDM, BJM. Late south 5/31 Rock KRE and Lac Qui Parle (18) BJU, but see summer report. Late north 5/18 Pennington RBJ, 5/25 St. Louis (2 at Duluth) PHS.

Ross's Goose — Numbers down from last year's record-high 993+. Approximate statewide total of 225 in 17 south and 2 north counties. Early south 3/15 Jackson and Nobles DFN, PEJ, 3/22 Dakota (H.P.B.C.) KJB. All north reports: 3/24–29 Grant RBJ, SPM, DKM, 4/6 St. Louis (Park Pt., Duluth) *fide* JCG. Late south 5/17 Lac Qui Parle BJU and Lyon PHS *et al.* Peak counts 3/23 Jackson and Nobles (85) PEJ, 3/26 Martin (74) DDM, BJM.

Canada Goose — Reported throughout the state. Unusual concentration of 800 "Richardson's" types 4/3 Traverse KJB.

Mute Swan — Presumably "wild" birds 3/19 Dakota (2 at H.P.B.C.) KJB. Birds of uncertain origin seen 3/1+ Dakota (Black Dog L.) CBr *et al.*, 3/16–18 Olmsted (Mayowood) CBe, 3/22 McLeod RBJ, 3/30–4/10 Mower (Austin) RDK, RCK, 4/11–17 Rice (2 at Wells L.) m.ob., 4/13 LeSueur (Montgomery) DDM, BJM, 5/16 Waseca FVS.

Trumpeter Swan — Statewide total at least 318 in 17 south and 22 north counties (10 reports omitted number of birds).

Tundra Swan — Reported from 25 south and 18 north counties. Early south 3/20 Houston FZL, 3/22 in four counties. Early north **3/13** Becker BRK, 3/17 Hubbard RCS and St. Louis JRN. Late south 5/4 Stevens RMD. Late north 5/13 Aitkin WEN. Seasonal total of 7288 at H.P.B.C. (peak 3503 on 3/31) KJB. Notable concentration 4/12 Clearwater (2500+) DPJ.

Wood Duck — Reported from 41 south

Yellow-crowned Night-Heron, 24 April 2003, Austin, Mower County. Photo by Jeff Morrison.

and 24 north counties. See winter report for overwintering birds and possible early south migrants. Peak migration 3/15–17 in six south counties. Early north 3/17 Aitkin WEN, 3/20 Clay DKn.

Gadwall — Observed in 44 south and 20 north counties. Please see winter report for overwintering south; apparent influx of migrants 3/14–16 in seven counties. Early north 3/30 Wilkin DTT, SMT, 4/6 St. Louis SLF. Highest reported count 4/8 Houston (675) KJB.

American Wigeon — Reported from 34 south and 16 north counties. Early south (but see winter report) 3/1 Dakota JPM and Freeborn AEB, then 3/15–16 in eight counties. Early north 3/24 Otter Tail DTT, SMT, 3/26 Todd BWF. Peak concentration 4/8 Houston (489 at L. Lawrence) KJB.

American Black Duck — Observed in 13 south and 7 north counties; none in the Southwest. Late south (median 5/25) 4/13 Carver RMD, 4/21 Lac Qui Parle BJU (only West-central report). Only Northwest report: 5/31 Clay RGj.

Mallard — Reported statewide. Seasonal

total of 23,424 at H.P.B.C. (KJB).

Blue-winged Teal — Seen in 41 south and 24 north counties. Early south 3/13 Freeborn AEB, 3/15 Lac Qui Parle BJU. Early north 3/30 St. Louis SLF, 4/1 Otter Tail DTT, SMT. Peak migration 5/1 in the Southwest (300) KJB.

Cinnamon Teal — Two reports of this rare, soon-to-be Casual species: adult males 4/22 Lac Qui Parle (no details) JEB, RBJ, 4/23–25 Benton (Gilman lagoons) †HDD, m.ob.

Northern Shoveler — Reported from 39 south and 17 north counties. Early south 3/2 (same bird as 2/16?) Waseca JPS, 3/13 Freeborn AEB. Early north (median 3/28) 3/14 Otter Tail m.ob., then none until 4/6 Clay RHO, 4/11–13 in seven counties.

Northern Pintail — Reported from 24 south and 13 north counties. Early south (median 2/28) 3/1 Freeborn AEB, then none until 3/14–16 in six counties. Early north (overwintered St. Louis) 3/15 Otter Tail SPM, DKM, 3/22 Polk JMJ. Peak count 3/16 (1225 at H.P.B.C.) KJB.

Green-winged Teal — Seen in 34 south and 18 north counties. See winter report for overwintering south; probable early south migrants (median 3/6) 3/13 Freeborn AEB, 3/14–17 in nine counties. Early north (median 3/28) 4/4 Todd m.ob., 4/6 Clay RHO.

Canvasback — Seen in 34 south and 14 north counties in all regions, though only St. Louis (Duluth) in Northeast. Early south (median 3/1) 3/13 Freeborn AEB, 3/15 in six counties. Early north (median 3/26) 4/6 Clay RHO, 4/12 Otter Tail HCT and Polk DPJ. Highest reported count 4/8 Houston (500) KJB.

Redhead — Reported from 36 south and 18 north counties. Early south 3/1 Goodhue BRL, 3/2 Waseca (same bird as 2/16?) AEB, 3/8 Dakota ADS. Early north (median 3/21) 4/10 Otter Tail DTT, SMT, 4/12 Polk and Clearwater DPJ. Highest count 4/24 Mille Lacs L. (300) KJB.

Ring-necked Duck — Seen in 32 south and 23 north counties. See winter report for overwintering birds and possible early south migrants. Early north 3/15 Traverse SPM, DKM, 3/23 Aitkin, Kanabec, Otter Tail. Peak count 4/8 Houston (1800 on L. Lawrence) KJB.

Greater Scaup — Observed in 16 south and 7 north counties. See winter report for overwintering and early south migrants. Early north (median 4/1) 3/24 Todd BWF, then none until 4/11 Polk EEF. Only May report south: 5/6 Dakota JPM. Late north 5/22 St. Louis KJB, but see summer report. Highest reported count 4/30 St. Louis (1250 at Duluth) PHS, but also note 600 Greaters, 1000 Lessers, and 3200 scaup spp. 4/24 Mille Lacs L. KJB.

Lesser Scaup — Seen in 38 south and 20 north counties. Please see winter report for overwintering birds and early south migrants. Early north 3/15 Traverse SPM, DKM, 3/17 St. Louis PHS. Highest reported count 3/26 Houston (3000 on Pool 8) KJB.

Harlequin Duck — No reports.

Surf Scoter — Three observations north: **4/16–17** St. Louis (Park Point in Duluth) MH, PHS, 5/17 St. Louis (same bird?) *fide* DRB, 5/24–29 Cook (max. 5 in 3 locations) MCBS, KRE *et al.* One report away from L. Superior: 5/19 Lyon (Runholt Slough) RJS. Also see summer report!

White-winged Scoter — All reports from Cook: 5/15 (flyby of 40 at Taconite Harbor) JWL, 5/25 (11 at Grand Marais) KRE, 5/25 (4 at Five Mile Rock) DFN.

Black Scoter — Only report: 5/17–20 St. Louis (Stoney Point) †RSc, NAJ, m.ob.

Long-tailed Duck — All south reports: 3/1–12 Goodhue (male near Prairie Is.) BRL, m.ob., 4/5 Dakota (Spring L.) KJB. Many north reports, all from L. Superior:

3/22–4/14 St. Louis (max. 44 at Stoney Pt.) JWL, 3/22–5/24 Lake (max. 38) DFN, JWL, 4/24 Cook (78) KJB, 5/18 St. Louis (Duluth) CAM, 5/24–29 Cook (max. 66) MCBS, KRE, m.ob.

Bufflehead — Reported from 34 south and 20 north counties. Overwintered in Scott; early south migrants (median 3/3) 3/15–16 in nine counties. Early north (away from L. Superior) 3/23 Kanabec CAM, 3/27 Aitkin WEN. Late south 5/26 Brown BSm, 5/27 Scott MBW. Peak count 3/26 Houston (147 at Reno) KJB.

Common Goldeneye — Reported from 28 south and 23 north counties. Late south 5/10 Goodhue DCZ, 5/12 Ramsey REH. Highest reported count 3/11 Wright (1290 at Monticello) KJB.

BARROW'S GOLDENEYE — Adult male 4/2 Hennepin (Long Meadow L.) †TAT, †PEB, m.ob. Female at Fergus Falls since 1/30 last reported 3/11 SPM *et al.*

Hooded Merganser — Seen in 36 south and 24 north counties. Overwintered south and north. Probable migrants 3/13 Freeborn AEB, 3/14–16 in nine south counties, 3/15 in three north counties.

Common Merganser — Seen in 31 south and 21 north counties. Early north (away from overwintering locations) 3/15 Traverse SPM, DKM, 3/16 Aitkin WEN and St. Louis SLF. Late south 5/13 Carver RMD, 5/28 Olmsted PWP. Highest count 3/16 (218 at H.P.B.C.) KJB.

Red-breasted Merganser — Reported from 24 south and 13 north counties in all regions, but only Redwood in Southwest and Becker in Northwest. Early south (median 3/10) 3/1 Scott REH, 3/13 Freeborn AEB. Early north (away from L. Superior) 3/31 Otter Tail DTT, SMT, 4/10 Beltrami DPJ. Late south 5/20 Carver RMD.

Ruddy Duck — Seen in 35 south and 10 north counties in all regions. Early south (median 3/11) 3/16 Dakota PEJ, 3/19 Winona JJS. Early north (median 4/5) 4/13 Todd JSK, SID, 4/17 Kanabec CAM and Polk EEF. Unusual locations 5/11–29 St. Louis (Biwabik) ALE, 5/18 St. Louis (Duluth) SWe.

Osprey — Observed in 19 south and 17 north counties, though none in the Southwest. Early south 3/30 Winona PEJ, DFN, 3/31 Ramsey REH and Washington KJB. Early north 4/11 Marshall KOd, 4/14 St. Louis ALE, FJN *et al.* Also see Table 1.

Bald Eagle — Observed in 35 south and 29 north counties. Peak migration 3/19 Dakota (453 at H.P.B.C.) KJB, 3/24 St. Louis (588 at W.S.H.C., Duluth) FJN, DSC. Also see Table 1.

Northern Harrier — Seen in 37 counties south and 26 north. Early south migrants inseparable from those reported throughout the winter season. Early north 3/15–16 in seven counties. Also see Table 1.

Sharp-shinned Hawk — Reported from 22 south and 17 north counties. Early north (but see winter report) 3/14 Todd JSK, SID, 3/21 Lake JWL. Apparent migrants last reported 5/25 Hennepin PEB, 5/31 Rice DAB. Peak count 4/6 St. Louis (285 at W.S.H.C., Duluth) FJN, DSC.

Cooper's Hawk — Observed in 32 south and 12 north counties in all regions. Early north (median 3/28) 3/7 Otter Tail DTT, SMT, 3/16 St. Louis (W.S.H.C., Duluth) FJN, DSC. Also see Table 1.

Northern Goshawk — Seen in five south and five north counties. No reports from Southeast, Southwest, or Northwest. Late south 4/27 Scott JEB. Also see Table 1.

Red-shouldered Hawk — Observed in 23 south and 9 north counties; none in the Southwest or Northwest. Total of 29 at H.P.B.C. (peak 13 on 3/14) down from previous years (KJB). Early north **3/2** (earliest north date) Morrison BWF, 3/16 Todd JSK, SID, 3/17 Wilkin SPM, DKM. All other north reports: Douglas, Mille Lacs, Mor-

Species	Mar	Apr	May	Total	Range	Peak	No.
Turkey Vulture	8	965	64	1037	3/23–5/16	4/14	174
Osprey	0	127	57	184	4/14–5/16	4/29	23
Bald Eagle	1710	1117	43	2870	3/03–5/24	3/24	588
Northern Harrier	4	40	4	48	3/16–5/20	4/23	7
Sharp-shinned Hawk	5	1749	624	2378	3/23–5/25	4/24	285
Cooper's Hawk	2	33	6	41	3/25–5/16	4/09	7
Northern Goshawk	6	5	0	11	3/04–4/30	4/01	2
Red-shouldered Hawk	0	3	0	3	4/01–4/12	singles	
Broad-winged Hawk	0	9356	3792	13148	4/22–5/27	04/29	3837
Swainson's Hawk	0	3	1	4	4/12–5/06	04/29	2
Red-tailed Hawk	80	5297	180	5757	3/06–5/27	4/11	1120
Rough-legged Hawk	39	114	6	159	3/12–5/15	4/22	19
Golden Eagle	37	31	3	71	3/04–5/12	3/24	10
American Kestrel	0	105	10	115	4/08–5/24	4/14	20
Merlin	0	15	1	16	4/08–5/02	4/26	3
Peregrine Falcon	0	2	4	6	4/28–5/14	5/14	2
unidentified	1	1	0	2			
Totals	**2092**	**18964**	**4795**	**25851**			

Table 1. Spring 2003 West Skyline Hawk Count in Duluth, St. Louis County.

rison, Otter Tail, Pine, St. Louis (total 3 at W.S.H.C., Duluth) FJN, DSC.

Broad-winged Hawk — Seen in 24 south and 20 north counties; absent Southwest. Early south 4/8 McLeod RMD, 4/14 Freeborn AEB. Early north 4/22 St. Louis FJN, DSC, 4/24 Carlton LAW and Pine JMP. Peak 4/23 Dakota (H.P.B.C.) KJB. High count 4/29 St. Louis (3837 at W.S.H.C., Duluth) FJN, DSC. Also see Table 1.

Swainson's Hawk — Seen in 15 south and 5 north counties, mainly in southern and western regions. Early south 4/19 Fillmore PWP, 4/20 Houston JJS. Early north 4/12 St. Louis (adult light morph at W.S.H.C., Duluth) FJN, DSC; three more birds there 4/29–5/6 (two adult rufous morphs and one unknown). All other north reports: Becker, Otter Tail, Roseau, Traverse.

Red-tailed Hawk — Reported from 66 counties statewide. Peak migration south 3/31 Dakota (445 at H.P.B.C.) KJB. See Table 1 for totals at W.S.H.C. in Duluth, where highlights included 47 dark morphs (10 on 4/9), one adult "Krider's" Hawk, and two adult "Harlan's" Hawks (one dark morph and one light morph) FJN, DSC.

Ferruginous Hawk — Only report: 4/23 Big Stone (Odessa Twp.) †BJU.

Rough-legged Hawk — Seen in 14 south and 17 north counties. Late south 4/27 Murray NED, 4/28 Hennepin OLJ. Late north 5/15 St. Louis FJN, DSC, 5/30 Polk SAS. Peak migration 4/22 (19 at W.S.H.C., Duluth) FJN, DSC. Also see Table 1.

Golden Eagle — More reports than usual (twice as many as last spring). Observed in a total of five south and six north counties. Late south 4/13 Carver RMD; also seen in Dakota, Jackson, Washington, Winona. Four observed at H.P.B.C., Dakota County (3 on 3/14) KJB. Late north 5/13 Kittson RPR. Total of 71 at W.S.H.C. in Duluth (10 on 3/24) FJN, DSC. All other north reports: Becker (2), Clay (2), Polk, Wilkin (4).

American Kestrel — Observed in 66 counties statewide. Peak migration 3/15–

18 in seven south counties, 3/21–24 in six north counties. Also see Table 1.

Merlin — Observed in 13 south and 15 north counties, and in all regions except the Southwest. Seasonal totals 9 at H.P.B.C., Dakota County (KJB) and 16 at W.S.H.C. in Duluth (FJN, DSC); also see Table 1. Potential late migrant south 5/29 Chisago, but see summer report. "Richardson's" Merlin 5/15 Wilkin RPR.

Gyrfalcon — Adult male overwintering in St. Louis (Port Terminal in Duluth) reported through 3/1 DSC. Also see undocumented reports.

Peregrine Falcon — Seen in 13 south and 8 north counties in all regions. Early south (away from Twin Cities area) 3/16 Stearns DRu, 3/20 Houston FZL. Early north 3/31 Becker SAS, 4/2 Cook *fide* DRB. Probable late south migrants 5/11 Cottonwood BSm, 5/12 Meeker (2) DMF. Late north (away from known breeding areas) 5/11 Otter Tail SPM, DKM, 5/31 Traverse (Mud L.) KJB.

Prairie Falcon — No reports.

Gray Partridge — Found in 19 south counties (12 last spring) as far southeast as Goodhue and Houston. All counts single digits except (no date) Lac Qui Parle (flock of 23, Walter Twp.) BJU. All north reports: Clay (4 locations), Kittson (2), Traverse (2), Wilkin (2).

Ring-necked Pheasant — Observed in 54 counties as far north as Clay, Otter Tail, Wadena, Cass, Crow Wing, Kanabec and Pine, plus 5/17 Beltrami (near Pennington) DPJ.

Ruffed Grouse — Seen in 27 counties within range, including Dakota (Miesville Ravine) JPM.

Spruce Grouse — All reports: small numbers in four Lake and two Lake of the Woods locations, plus 5/21 Beltrami (Waldo Road) JWL.

Spruce Grouse, 16 March 2003, Lake County. Photo by Peder Svingen.

Sharp-tailed Grouse — All reports: Aitkin (max. 18, WEN), Lake of the Woods (4), Marshall (max. 12, JMJ), Pine (max. 6, JMP), Polk (1), Roseau (6), St. Louis (max. 17 near Meadowlands, CBe).

Greater Prairie-Chicken — Released birds sighted in Big Stone (2) and Lac Qui Parle (14) BJU. All north reports: Becker (18 on new lek at Hamden Slough N.W.R., MTM), Clay (max. 59 at Felton Prairie, RHO), Otter Tail (14), Wadena (11 at Burgen Lake Prairie in Orton Twp., PJB), 4/18 Wilkin (high count 139 in Manston and Tanberg townships, PCC).

Wild Turkey — Observed in 43 counties as far north as Clay (Barnesville W.M.A.), **Mahnomen** (4/17, JEB, RBJ), Todd (max. 25), Wadena, Morrison, Kanabec, Pine.

Northern Bobwhite — Only one report of this declining species: mid-April Hous-

ton (Wilmington Township) *fide* KAK.

Yellow Rail — All south reports: earliest dates on record **4/18** Anoka (heard only, near Carlos Avery W.M.A. headquarters) †TAN, JH, **4/22** Jackson (Toe W.M.A.) †BRB; also reported 5/7 Anoka (pool #4 at Carlos Avery W.M.A.) KJB. Early north 5/11 Aitkin CLB, 5/17 St. Louis (county road 319) KWR *et al*. High count 5/23 Norman (min. **51** along a one mile stretch of county road 39 at Neal W.M.A.) AXH, PHS.

Virginia Rail — Reported from 20 south and 11 north counties in all regions, but only St. Louis in Northeast. Early south (median 4/15, overwintered?) **3/24** Hennepin (Bass Ponds) SLC, 4/18 Hennepin REH, 4/22 Big Stone, Lac Qui Parle and Winona. Early north (median 5/6) 5/7 Polk EEF, 5/8 Otter Tail DTT, SMT.

Sora — Reported from 28 south and 20 north counties. Early south 4/14 Chisago JJS, 4/18 Hennepin REH, PEJ. Early north 4/23 Todd BWF, 4/29 Kanabec CAM.

Common Moorhen — All reports: 5/6 Freeborn AEB, DDM, 5/12 Mower RDK, RCK, 5/16 Olmsted PWP, 5/31+ **Becker** (Hamden Slough N.W.R.) †RHO, m.ob (***The Loon*** 75:235).

American Coot — Seen in 51 counties. See winter report for overwintering birds south. Overwintered in Otter Tail; probable early north migrants 4/6 Clay RHO (recent median 3/28). Highest reported counts 4/5 Waseca (4000 at Clear L.) LWF, 4/8 Houston (7000) KJB.

Sandhill Crane — Observed in 24 south and 21 north counties, and in all regions except the Southwest. Early south 3/13 Freeborn AEB, 3/15 Wabasha OWB. Early north **3/16** Otter Tail TSm, **3/17** Todd BWF, 3/18 Polk DLT. Late south (but see summer report) 5/26 Brown BSm and Waseca JPS. Highest reported count 4/19 Marshall (3000 by Old Mill S.P.) LJo.

Black-bellied Plover — Reported from seven south and five north counties. Early south (recent median 5/9) 5/10 Goodhue m.ob., 5/11 Dakota KJB. Early north 5/9 Traverse KJB, 5/18 Marshall JEB, RBJ, JMJ. Peak migration 5/19–27 statewide, including 5/19 Dakota (18 at L. Byllesby, ADS and 45 near county roads 66/79, CBr, LM), 5/19 Hennepin (20 near county roads 13/144, JCC), 5/22 Marshall (18 at Warren, PHS), 5/27 Marshall (43 at Agassiz N.W.R., KJB).

American Golden-Plover — Relatively scarce for the *fourth consecutive spring*. Reported from only five south and three north counties. Early south 4/15 Lac Qui Parle (1) BJU, 4/29 Big Stone (8) and Stevens (2) KJB. Early north 4/27 Traverse (30) ABL, 5/2 Traverse (7) PLJ. Highest reported count 5/6 Big Stone (32) KJB.

Semipalmated Plover — Reported from 16 south and 8 north counties. Early south (median 4/22) 4/15 Hennepin (2 at Eden Prairie) SLC, 4/23 Anoka JJS. Early north 5/2–3 Traverse m.ob., 5/6 Traverse KJB. Late south 5/31 Dakota ADS and Hennepin BWF, but see summer report. Record-high count 5/23 Marshall (**233** at Agassiz N.W.R.) PHS.

Piping Plover — Relatively good showing for second consecutive spring. All reports: 4/27–29 Big Stone (near Ortonville) PCC, PHS, KJB, 5/1 **Le Sueur** (St. Peter lagoons) KJB, 5/2 Traverse (Mud L.) KJB, JEB, RBJ, 5/10 Dakota (L. Byllesby) ADS, JPM, 5/16 St. Louis (Hearding Is., Duluth) DAG, 5/24–25 St. Louis (Park Pt., Duluth) m.ob.

Killdeer — Reported from 69 counties statewide. Peak migration in mid-March. Early south 3/14 in six counties, 3/15–16 in sixteen. Early north 3/15 Traverse DKM, SPM, 3/16 Carlton, Cass, Crow Wing. Highest reported count 5/23 Marshall (66 at Agassiz N.W.R.) PHS.

BLACK-NECKED STILT — Fifth state record 5/25 **Wright** (2 adults near Montrose) †BW.

American Avocet — Statewide total ~42 birds in 8 counties (compare with record-high 167+ in 30 counties last spring). Early south 4/20 Lyon (2) TGu, 4/21 Lac Qui Parle (3) BJU. Early north 4/29+ Marshall (Agassiz N.W.R.) KA, m.ob., 4/30+ Becker (pair at Hamden Slough N.W.R.) m.ob. Highest reported counts 4/27 Stearns (9–11 at Albany sewage ponds) PCC, HHD, 5/21 Big Stone (11 in vicinity of county road 61/state highway 28) KJB.

Greater Yellowlegs — Seen in 23 south and 14 north counties in all regions. Early south 3/29–30 Olmsted JJS, PWP, 4/4 Anoka KJB. Early north **3/23** Otter Tail SPM, DKM, 4/11 Polk EEF and St. Louis JRN.

Lesser Yellowlegs — Observed in 25 south and 16 north counties. Early south 3/29 Brown (6) BSm, 4/6 Rice DAB, FVS. Early north 4/11 Grant JEB, RBJ, 4/14 St. Louis JWL. Highest reported count 5/18 Marshall (656 at Agassiz N.W.R.) JEB, RBJ, JMJ.

Solitary Sandpiper — Seen in 20 south and 14 north counties in all regions except the Southwest. Early south 4/15 Brown (2) BSm, 4/25 Winona JJS. Early north 5/1 Todd (3) BWF, 5/3–4 in five counties. Late south 5/25 Hennepin WCM, 5/27 Freeborn AEB, also see summer report.

Willet — Reversing a three-year trend of increasing numbers during spring migration (***The Loon*** 74:207) but still above the long term average was a total of ~105 birds in 15 south and 7 north counties. Early south (median 4/25) 4/13 Lyon DFN, PEJ, 4/24 Redwood JJS, 4/25–29 in five more counties. Early north (median 5/1) 5/3 Traverse RBJ *et al.*, 5/6 St. Louis *fide* DRB. Please see summer report for late spring migrants south and north. High counts 4/27 Olmsted (19 at Silver Creek Reservoir) CBe, PWP, 5/3 Traverse (12 at Mud L., probably from flock of 20 seen on the South Dakota side of state line the previous day) JEB, RBJ *et al.*

Spotted Sandpiper — Reported from 30 south and 19 north counties. Early south 4/20 Fillmore JJS, 4/21 Freeborn AEB. Early north 4/27 Aitkin WEN, 4/28 Mille Lacs KJB. Highest reported count 5/12 Dakota (18 at Randolph) BRL.

Upland Sandpiper — Seen in ten south and nine north counties. No reports from the Southeast. Early south (median 4/26) 4/29 Swift KJB, 5/1 Chippewa, Sherburne and Swift. Early north (median 5/2) 5/6 Traverse KJB, 5/8–10 in three counties.

Whimbrel — All reports from Northeast, except first county record 5/21 **Wilkin** (one seen and heard at Breckenridge lagoons) KJB. Early north 5/16–19 St. Louis (max. 32 at Duluth) MH, m.ob. Providing the state's second highest count (**226**) were two separate flocks within a ten minute period 5/26 Cook (154 at Five Mile Rock and 72 at Paradise Beach) DFN; reports of 100+ at Good Harbor Bay (KRE *et al.*) and 45 at Grand Marais (TD) the same day were probably among those counted by DFN. Late north 5/27 Cook (1) RBJ.

Hudsonian Godwit — Statewide total of 277+ in five south and six north counties, down 63% from last spring. Arrived 7–9 days later than the recent medians. Early south 4/28 Lac Qui Parle (Salt L.) BJU. Early north 5/17 Pennington JEB, RBJ. Please see summer report for late south migrants. Late north 5/31 Becker PLJ. Highest reported count 5/18 Marshall (240 at Agassiz N.W.R.) JEB, RBJ, JMJ.

Marbled Godwit — Reported from only seven south and ten north counties in all regions except the Southeast. Arrived exactly on median dates. Early south 4/13 Dakota CBr, LM, 4/15 Stearns STW. Early north 4/13 Clay (2) PCC, Polk (2) EEF *et al.* and Wilkin (15) PCC. Highest reported count 5/27 Marshall (50 at Agassiz N.W.R.) KJB.

Ruddy Turnstone — Reported from only eight south and five north counties. Scarce again along the North Shore of L. Superior. Early south 5/10 Wabasha NAMC,

5/10–11 Dakota ADS, KJB. Early north 5/14 Grant/Traverse KJB, 5/18 St. Louis CAM. Late south 5/29 Big Stone BJU, 5/31 Rock (Luverne) KRE *et al.* Late north 5/30–31 Marshall m.ob., also see summer report. All counts ≤14 birds.

Red Knot — All reports: 5/27 Marshall (3 at Agassiz N.W.R.) KJB, 5/27 Polk (Crookston lagoons) KJB, 5/28–29 **Winona** (2 at Lewiston lagoons) JWH *et al.*

Sanderling — Reported from only six south and six north counties. No reports from Southeast. Scarce along the North Shore of L. Superior. Early south 5/10 Dakota ADS, 5/17 Lac Qui Parle BJU. Early north 5/8 Pennington KJB, 5/11 Crow Wing HHD, JPR. Late south 5/29 Big Stone BJU, 5/31 Dakota ADS, JPM and Rock KRE *et al.* Late north 5/30 Marshall PLJ, but also see summer report. Highest reported count 5/19 Big Stone (28) KJB.

Semipalmated Sandpiper — Seen in 14 south and 8 north counties. Early south 4/26 Winona PWP, 4/27 Big Stone and Lac Qui Parle m.ob. Early north 5/2 Traverse KJB *et al.*, 5/3 Marshall ALE. Highest reported count 5/31 Traverse (650 at Mud L., all in Minnesota) KJB.

Least Sandpiper — Seen in 19 south and 7 north counties. Early south 4/15 Brown BSm, 4/25 Lac Qui Parle BJU. Early north 5/2 Traverse KJB *et al.*, 5/3 Marshall ALE. Late south 5/31 Hennepin HCT and Rock KRE *et al.*, also see summer report. Highest reported count 5/23 Marshall (337 at Agassiz N.W.R.) PHS.

White-rumped Sandpiper — Observed in ten south and four north counties. Early south 4/28 Lac Qui Parle BJU, 4/29 Big Stone KJB. Early north **5/2** Traverse (2) KJB, 5/5 Traverse (44) KJB. Please see summer report for late spring migrants. High counts 5/17 Rock (**400** at Luverne) PHS, 5/26 Big Stone (221) KJB.

Baird's Sandpiper — Reported from 13 south and 9 north counties. Early south (median 4/8) 4/13 Big Stone, Dakota, Lac Qui Parle and Lyon. Early north 4/19 Traverse (16) PCC, 4/27 Wilkin (4) PHS. Late south 5/28 Hennepin and Wright SWe, also see summer report. Record-high count 5/2 Traverse (**473** at Mud L., all in Minnesota and nearly double the previous high of 256 at this location exactly one year earlier) KJB.

Pectoral Sandpiper — Observed in 20 south and 12 north counties. Early south 4/6 Rock *fide* AXH, 4/8 Houston KJB. Early north 4/3 Polk (2) EEF, 4/12 Otter Tail HCT. Please see summer report for late spring migrants. All counts ≤50.

Dunlin — Seen in 18 south and 9 north counties. Early south 4/19 Stearns PCC, 4/22 Winona JJS. Early north 5/3 Marshall ALE, 5/6 Traverse (5/2 on South Dakota side of Mud L.) KJB. Late south 5/31 Dakota, Hennepin and Rock m.ob., also see summer report. High counts 5/26 Big Stone (379) KJB, 5/27 Marshall (**609** at Agassiz N.W.R., record-high count) KJB.

Stilt Sandpiper — Reported from six south and three north counties. Early south 5/1 Hennepin WCM, 5/6 Big Stone KJB. Early north ~5/17 Pennington RHy, 5/23 Marshall PHS. Late south 5/29 Lac Qui Parle (2) BJU. Please see summer report for late north migrants. Highest reported count 5/19 Big Stone (34) KJB.

Buff-breasted Sandpiper — Reported **5/19** Big Stone KJB.

RUFF — Male, probably in first-alternate plumage, observed **5/17** Anoka (Bunker Hills Regional Park) GP, ph. †KJB (***The Loon*** 75:236–237).

Short-billed Dowitcher — Reported from 12 south and 9 north counties in all regions. Early south **4/27** Scott PEJ (only April report statewide), 5/6 Dakota JPM, 5/8 Chippewa and Swift JJS. Early north 5/7 St. Louis JRN, 5/11 Clay DPJ. Late south 5/21 (20) & 5/25 (2) Lac Qui Parle BJU. Late north 5/23 Marshall PHS. Peak

count 5/21 Grant (39 at Pullman L.) KJB.

Long-billed Dowitcher — Observed in ten south counties. Early south 4/24 Redwood *fide* AXH, 4/27 Fillmore JJS and Olmsted PWP. Only north reports: **4/24** (ties earliest date north) Todd JSK, SID, 5/3 Marshall ALE. Late south 5/15 Lac Qui Parle BJU, 5/19 Big Stone (1) KJB. Highest reported count 4/29 Big Stone (34) KJB.

dowitcher, sp. — Unidentified dowitchers 5/18 Marshall (**250** at Agassiz N.W.R.) JEB, RBJ, JMJ.

Wilson's Snipe — Reported from 25 south and 18 north counties statewide. Early south (away from Houston County, see winter report) 3/24 Dakota *fide* AXH, 3/25 Rice FVS, DAB and Stearns PCC. Early north (away from Duluth) 4/2 Todd JSK, SID, 4/9 Polk EEF. High count 4/13 Todd (50–60) JSK, SID.

American Woodcock — Reported from 22 south and 12 north counties and in all regions. Early south 3/18 Freeborn AEB, 3/23 Rice TFB. Early north 3/25 Carlton LAW, 3/27 Clay RGj.

Wilson's Phalarope — Statewide total of 690+ individuals reported from 15 south and 12 north counties, numbers down from exceptional Spring 2002 migration (1785+ in 48 counties). Early south 4/27 Lac Qui Parle FAE, 4/29 Big Stone KJB. Early north 4/27 Wilkin (4) PHS, 5/2 Traverse KJB, JEB, RBJ. Highest reported count 5/8 Polk (89 at Crookston lagoons) KJB; additional counts ≥50 in Lac Qui Parle, Norman, Pennington. **Note**: Please continue giving exact locations and numbers for all phalarope reports.

Red-necked Phalarope — Total of 103+ individuals in six south and six north counties, more than usual for the second consecutive spring. Early south 5/10 Dakota ADS *et al*., 5/14 Rice TFB. Early north **5/8** (ties earliest north) Pennington KJB, 5/18 in four counties. Late south 5/31 Brown BSm, also see summer report. High counts 5/18 Wilkin (22 at Breckenridge lagoons) PHS, 5/19 Lac Qui Parle (48 at Salt L.) KJB.

Parasitic Jaeger — Adult light morph flew over astonished hawk watchers at the Thompson Hill lookout and continued southwest **5/16** (ties earliest date) St. Louis (W.S.H.C.) ph. FJN, DAG, JP.

Franklin's Gull — Reported from only 13 south and 9 north counties. Early south 3/25 Dakota (H.P.B.C.) KJB; first south report away from H.P.B.C. 4/12 Le Sueur DPS. Early north 4/4 Grant SPM, DKM, 4/7 Otter Tail DTT, SMT. Unusual for the East-central was 183 tallied 4/15 Dakota (H.P.B.C.) KJB.

Little Gull — All reports: first-year birds **5/10 Meeker** (Goose L., ties second earliest south date) †DMF, 5/18 St. Louis (Duluth) BCM, ph. BH.

Bonaparte's Gull — Seen in 21 south and 10 north counties in all regions. Fewer reports than usual and no significant high counts. Early south 4/3 Chippewa KJB, 4/5 Freeborn AEB, peak migration 4/12–14 (10 south counties). Early north 4/18 Aitkin WEN, 4/24 Todd JSK, SID. No south reports later than 5/12 Hennepin and Ramsey m.ob.

Ring-billed Gull — Observed in 56 counties statewide. Two overwintered in Dakota (see winter report); early south migrants 3/14 Dakota (38 at H.P.B.C.) KJB, 3/15 in six counties. Early north 3/8 (1), 3/17 (75), 3/22 (2000+) St. Louis (Duluth) PHS; also reported 3/22 Lake DFN. High count 4/1 Dakota (13,000 at Spring L.) KJB.

Herring Gull — Seen in 14 south and 18 north counties. Early south 3/15 Dakota PEJ, 3/16 Dakota JPM and Hennepin SLC, OLJ. Early north (away from L. Superior) 3/26 Beltrami DPJ, 4/6 Clay RHO and Polk EEF.

Thayer's Gull — All south reports: 3/21 Dakota (adult) KJB, 5/4 Goodhue (no de-

tails) SWe. Only north report: first-winter at Two Harbors through 3/2 Lake JWL.

Iceland Gull — No reports.

Lesser Black-backed Gull — No reports.

Glaucous Gull — All south reports were Dakota KJB: 3/27 (adult at Pine Bend), 4/17 (third-year bird at Pine Bend), 4/18 (immature at H.P.B.C.). One north report: 3/15 St. Louis (1) JWL.

Great Black-backed Gull — No reports.

Caspian Tern — Observed in 11 south and 7 north counties. Fewer reports than usual and none in Southwest or Northwest. Early south and highest reported count 5/6 Dakota (18) ADS. Early north 5/3 St. Louis PHS, 5/6 Aitkin WEN.

Common Tern — Seen in 12 south and 9 north counties. No reports from Southwest, and only Red Lake (5/19 JEB, RBJ) in Northwest. Early south 4/26 Le Sueur DPS, 5/7 Freeborn AEB. Early north 5/1 Aitkin WEN, 5/5 St. Louis PHS. Late south 5/30 Dakota ADS, also see summer report.

Forster's Tern — Observed in 23 south and 10 north counties. Early south 4/13 Blue Earth JJS, 4/18 Dakota KJB. Early north 4/29 Otter Tail DTT, SMT, 4/30 Marshall KA. Highest reported count 5/10 Todd (40) BWF.

Black Tern — Reported from 27 south and 17 north counties. Early south 4/26 Le Sueur DPS, 5/6 Hennepin OLJ. Early north 5/8 Marshall (Agassiz N.W.R. staff), 5/12 Otter Tail EJE. High count 5/19 Lyon (total of 550 in three locations) RJS.

Rock Dove — Statewide.

BAND-TAILED PIGEON — Overwintered through **4/4** Dakota CHT (***The Loon*** 75:238).

EURASIAN COLLARED-DOVE — Three accepted records: 3/12 **Carver** (New Germany) ph. †RMD, 3/21+ Grant (max. 3 at Herman, documented 3/22) SPM, DKM, ph. DTT, SMT, m.ob., 4/9–20 **Dodge** (near Claremont) CAK, ph. †JJS, m.ob. Reported as nesting for third consecutive year in Houston (Caledonia) but identification not established. Also see undocumented reports.

Mourning Dove — Reported throughout the state.

Black-billed Cuckoo — Seen in seven south counties beginning 5/6 Olmsted PWP, 5/17 Rice TFB. Arrived north 5/19 Otter Tail EJE, 5/24–25 Aitkin SLF, WEN; also reported from Morrison, Roseau, and Todd.

Yellow-billed Cuckoo — Early south (median 5/15) 5/18 Anoka CBr, LM and Houston FZL; also reported from Dakota, Fillmore, Goodhue, Lac Qui Parle, Sherburne. All north reports: 5/26 Beltrami DPJ and Otter Tail (**4** at North Turtle L.) EJE, 5/31 Otter Tail DTT, SMT.

Eastern Screech-Owl — All reports: Houston, Lac Qui Parle, Meeker (**4** at Litchfield on 5/9, DMF), Murray, Rice (gray morph), and Rock (same location near Luverne as in mid-1970s, KRE). Most unusual was the brown morph photographed 5/17 Rock (Hills City Park) AXH.

Great Horned Owl — Observed in 24 south and 14 north counties.

Snowy Owl — All reports: 3/15 Wilkin (Atherton Twp.) PCC, 3/18 Polk (2 at Glacial Ridge Project) DLT, 3/29 Grant/Stevens SPM, DKM, 4/2 Stevens (John A. Scharf W.M.A.) *fide* AXH.

Northern Hawk Owl — Only report: late March Cook (Seagull Guard Station) *fide* DRB.

BURROWING OWL — Reported 5/5–13 Swift (Moyer Twp.). Found dead 5/13 and subsequently deposited at the J. F. Bell Museum of Natural History in Minneapolis

as specimen #BMNH44835.

Barred Owl — Reported from 17 south and 11 north counties including 3/15 Clay (Moorhead) DDW. No reports from Southwest or West-central.

Great Gray Owl — Reported from Aitkin (county road 18), Lake of the Woods (Faunce Road/Rapid River Trail, MLK), St. Louis (Sax-Zim Bog).

Long-eared Owl — Only observations south: 3/2 Waseca JPS, 4/6 Rock (2) HHD, 4/8 Lyon (2) RJS, 5/19 Washington DPS. Early north 3/5 Itasca CBe, 3/16 Lake m.ob.; also reported from Lake of the Woods, Norman, Otter Tail (nesting 4/13+ CAS, HCT, m.ob.), Polk, St. Louis.

Short-eared Owl — Statewide total 20+ individuals in five south and seven north counties, mostly in Northwest and West-central. Early south 3/14–15 Olmsted (2 at Salem Corners) CBe, 3/29 Dakota (Black Dog L.) *fide* AXH, also observed in Blue Earth, Lac Qui Parle, Rice. Early north 3/3 Otter Tail (near Fergus Falls) EJE, 3/14 Wilkin (west of Lawndale) RGj. Only north report away from the western regions: 4/11 Morrison (Crane Meadows) DDM, BJM.

Boreal Owl — Only reports: Cook.

Northern Saw-whet Owl — All south reports were in March except as noted: Dakota, Hennepin, Houston (until 4/22, KAK), Rice. Reported from nine north counties beginning 3/5 Aitkin CBe. High count 3/16–17 Lake (up to **17** calling along Stoney River Forest Road) m.ob.

Common Nighthawk — Observed in 25 south and 15 north counties. Early south 5/5 Lac Qui Parle BJU, 5/6 Olmsted PWP, peak migration 5/10–15 (14 counties). Early north 5/10 Todd BWF, JJS, 5/13 Aitkin WEN.

Whip-poor-will — Reported from eight south and five north counties. No reports from Southwest. Early south 5/4 **Swift** (flushed) RBJ, 5/9 Houston KAK. Early north 5/9 Carlton LAW, 5/14 Clay (2) RHO; also reported from Aitkin, Beltrami, Cook (max. 4 on 5/29, RBJ).

Chimney Swift — Observed in 34 south and 20 north counties. Early south (median 4/21) 4/26 Lac Qui Parle BJU and Stearns MAJ, DCT, 4/27–30 in four more counties. Early north 5/1 Otter Tail SPM, DKM, 5/2 St. Louis FJN.

Ruby-throated Hummingbird — Seen in 28 south and 22 north counties. Early south 5/1 Freeborn AEB, 5/3 Steele NFT. Early north 5/4 Becker BRK, 5/5 Otter Tail SPM, DKM. Peak migration 5/5–10 south (10 counties) and 5/8–13 north (7 counties).

Belted Kingfisher — Reported from 32 south and 23 north counties. Overwintered as far north as Otter Tail (please see winter report); probable early north migrant 3/24 St. Louis JRN.

Red-headed Woodpecker — Observed in 23 south and 12 north counties in all regions, but only St. Louis in Northeast. Fewer reports than last spring. Eighteen overwintered at the Cedar Creek Natural History Area, Anoka County (JLH); also overwintered north (see winter report). Highest reported count 5/17 Rock (8 birds in 5 locations) AXH, PHS. Multiple reports from Becker (3 locations), Lac Qui Parle (7 birds, 5/16–31), Rice (7–10 birds, 5 locations), Wadena (3 locations).

Red-bellied Woodpecker — Seen in 44 counties as far north as Pennington and Polk in Northwest, **Koochiching** (5/10, JA, MJ) in North-central, and St. Louis (Sax-Zim) in Northeast. Highest reported count 5/10 Todd (**22**) JSK *et al.*

Yellow-bellied Sapsucker — Observed in 29 south and 19 north counties in all regions. Overwintered south and north (see winter report). Probable early south migrants 3/23 Hennepin (2) DCZ. Prob-

able early north migrant 4/5 Mille Lacs *fide* MRN. Peak migration 4/7–12 south, 4/13–18 north.

Downy Woodpecker — Seen statewide. Highest reported count 5/10 Todd (**40**) JSK *et al.*

Hairy Woodpecker — Seen statewide. Highest reported count 5/10 Todd (**34**) JSK *et al.*

Three-toed Woodpecker — No reports. Common name becomes American Three-toed Woodpecker next season.

Black-backed Woodpecker — Reported from Beltrami, Clearwater, Cook, Lake, Lake of the Woods, St. Louis.

Northern Flicker — Observed in 54 counties statewide. Overwintered in Otter Tail SPM, DKM, also see winter report. Probable early north migrant 3/26 Polk EEF, peak migration 4/10–20 (nine north counties). High count 4/14 St. Louis (309 at Duluth) JRN.

Pileated Woodpecker — Reported from 24 south and 22 north counties, as far southwest as Big Stone (Lac Qui Parle W.M.A.) and Lyon (Camden S.P.).

Olive-sided Flycatcher — Observed in 16 south and 7 north counties. Arrived a few days after recent medians south (5/7) and north (5/14). Early south 5/10 Goodhue DFN and Mower NAMC. Early north 5/17 St. Louis SWe, 5/18 Clay GEN. Please see summer report for late south migrants.

Eastern Wood-Pewee — Reported from 25 south and 11 north counties. Early south 5/6 Olmsted PWP, 5/10–12 in six counties. Early north (median 5/12) 5/18 Aitkin WEN, 5/21–24 in seven counties.

Yellow-bellied Flycatcher — Early south (all vocalizing) 5/22 Rice TFB, 5/23 Anoka BRL and Dakota DWK. Only north reports of vocalizing birds: 5/23 Norman PHS, 5/27 St. Louis SLF. Sight reports from eight additional counties.

Acadian Flycatcher — Vocalizing birds reported 5/17+ Dakota/Scott (Murphy-Hanrehan P.R.) ADS *et al.*, 5/21 Rice TFB, 5/25 Wright (Harry Larson County Forest) HHD. Also reported from Houston.

Alder Flycatcher — Vocalizing birds reported from six south counties beginning 5/22 Brown JSS and Rice TFB, 5/23 Anoka BRL; dozens still migrating and vocalizing 5/31 Rock KRE *et al.* Early north (all calling) 5/24 Pennington PHS, 5/25–26 Cass DRu, MRN.

Willow Flycatcher — Vocalizing birds in five south counties beginning 5/10 Goodhue DFN, 5/23 Hennepin OLJ and Rice TFB; also heard in Dakota, Lac Qui Parle. Reported without details from three south and two north counties. **Note**: During spring and fall migration, please indicate calling or singing *Empidonax* flycatchers on seasonal report form.

Least Flycatcher — Vocalizing birds arrived 5/6 Brown JSS, 5/9–10 in six south counties. Early north 5/3 Beltrami †DPJ, 5/8 St. Louis (calling) SLF, also singing in Cass, Crow Wing, Koochiching, Polk. In addition to those already cited for records of calling *Empidonax* flycatchers, thanks to BJU, BSm, CMM, DAB, EEF, JPM, PEB, and WCM for providing vocalization data.

Eastern Phoebe — Reported from 32 south and 19 north counties. Arrived about one week earlier than recent medians south (3/23) and north (3/29). Early south 3/16 Dakota JPM, 3/17 Fillmore NBO, peak migration 3/29–4/6 in 14 counties. Early north 3/22 Douglas PWP, 3/23 Aitkin WEN, peak migration 4/9–16 in 11 counties. Highest reported count 4/8 Goodhue (**14** at Hok-si-la Park) KJB.

Great Crested Flycatcher — Seen in 31 south and 17 north counties. Arrived on time statewide. Early south 5/3 Brown BSm and Freeborn AEB, 5/4 Hennepin SLC. Early north 5/8 Cass JWL and Otter

Tail EJE, 5/10 Hubbard NAMC.

Western Kingbird — Early south 5/7 Big Stone BJU, 5/10 Lac Qui Parle BJU; none away from the western tier counties until 5/19 Carver RMD. Early north 5/8 Clay KJB, 5/15 Otter Tail DTT, SMT, 5/16 Lake of the Woods JJS.

Eastern Kingbird — Reported from 31 south and 19 north counties. Early south 5/2 Watonwan DLB, 5/4 Hennepin SLC and Lac Qui Parle BJU. Early north 4/26 Polk EEF preceded recent median by nine days; next reported 5/10 Morrison MAJ, DCT and Kanabec CAM.

SCISSOR-TAILED FLYCATCHER — One documented 5/24–25 Lake (Two Harbors) †RMD, †KRE, ph. JWL, †PHS; subsequently refound through 5/27 m.ob.

Loggerhead Shrike — Observed in nine south counties, including two locations in Meeker, three in Rice, five in Dakota. Early south (median 3/18) 3/24 Dakota (3) †CBr, 4/1 Meeker DMF. Also reported from Big Stone, Chippewa, Jackson, Kandiyohi, McLeod, Rice and Sherburne (auto drive at Sherburne N.W.R.). Only north reports in Clay, beginning 4/17 RHO. Statewide total about 21 birds.

Northern Shrike — Two south reports after 3/22: 4/2 Sherburne RBJ, 4/8 Dakota JJS (recent median 4/5). The presence of Loggerhead Shrikes prior to these two dates (see above) underscores the need to carefully separate these two species in March/early April. North sightings in nine counties, representing all six regions. Late north 4/6 Aitkin WEN, 4/8 Carlton LAW, 4/26 Polk EEF (also overlapping with Loggerhead reports).

WHITE-EYED VIREO — One seen and heard 5/16 Goodhue (Old Frontenac) †KJB could not be refound.

Bell's Vireo — Arrived south three days later than the recent median. Early south 5/18 Wabasha (2) JMP, 5/24 Blue Earth (Minneopa S.P.) MJF. Also observed 5/25 Dakota (Cliff Fen) DWK, 5/26 Waseca (2) JPS, 5/26 Hennepin (Diamond L. near Dayton) DWK.

Yellow-throated Vireo — Early south **4/20** (ties earliest date) Dakota SWe, 5/4 Fillmore NBO, 5/5 Rice TFB, then new counties daily. Early north 5/16 Carlton LAW and Todd JSK, SID, 5/17 in three counties.

Blue-headed Vireo — Arrived on time. Early south 4/28 Freeborn AEB, 4/29 Hennepin SLC, 5/3 Anoka KJB and Dakota JPM. Early north 5/4 Kanabec CAM, 5/8 Itasca DCZ, 5/10 in four counties. Late south 5/26 Hennepin SLC, 5/28 Isanti JJS.

Warbling Vireo — Observed in 33 south and 13 north counties. Early south (median 5/1) 5/3 Dakota JPM, Freeborn AEB and Hennepin DWK. Early north (median 5/8) 5/14 Otter Tail EJE, 5/15 Polk EEF.

Philadelphia Vireo — Reported on time from 17 south and 7 north counties, and in all regions except the Southwest. Early south 5/9 Washington DPS, 5/10 in four counties. Early north 5/14 St. Louis JRN, 5/17 St. Louis SWe, 5/19 Pennington RBJ. Late south 5/29 Chisago REH, 5/31 Hennepin DWK, SLC.

Red-eyed Vireo — Arrived within one day of recent medians. Early south 5/6 Olmsted PWP, 5/10 in five more counties. Early north 5/10 Morrison DCT, MAJ, 5/15 Todd m.ob.

Gray Jay — Reported from the boreal region of the state. Highest reported count 3/16 Lake (18) PHS.

Blue Jay — Occurs throughout the state.

Black-billed Magpie — One at Swede's Hollow 5/20 **Ramsey** †FrH was the first south report in many years, but its origin was unknown. Also reported within usual range in Northwest region, Koochiching County, and traditional locations in Aitkin

and St. Louis.

American Crow — Seen statewide.

Common Raven — Reported south from Anoka and 4/15 Isanti REH. North reports chiefly from the northernmost third of the state.

Horned Lark — Seen south and north throughout the period. High counts 3/5 Fillmore (78) NBO, 3/9 Cass (50) MRN.

Purple Martin — Late arrival. Reported from 25 south and 16 north counties in all regions. Early south (median 4/5) 4/14 Brown JSS, Dakota KJB and Freeborn AEB. Early north (median 4/12) 4/18 Otter Tail PCC, 4/25 Mille Lacs PEJ, 4/26 Polk EEF.

Tree Swallow — Both 3/17 Waseca JEZ and 3/18 Dakota KJB preceded recent median south arrival (3/21), but first north reports more than one week later than recent median (4/3): 4/11 Pine JMP, 4/12 Aitkin WEN and Kanabec CAM.

Northern Rough-winged Swallow — Arrived within three days of recent medians south and north. Early south 4/14 Dakota KJB and Freeborn AEB. First north reports 4/17 Otter Tail SPM, DKM, then none until 4/29 Kanabec CAM. One report each from the Southwest (Redwood) and Northwest (Clay).

Bank Swallow — Early south 4/20 Fillmore JJS, 4/21 Rice TFB. Early north 4/27 Polk EEF, 5/4 Becker JMJ. Only reported from Redwood in Southwest, St. Louis in Northeast.

Cliff Swallow — Like the preceeding two species, only reported from Redwood in the Southwest. Early south 4/15 Goodhue JJS, 4/20 Waseca JEZ. Early north 4/24 Aitkin KJB, 4/27 Wadena PJB, only April reports north.

Barn Swallow — Arrived south on time: 4/12 Le Sueur DPS, 4/14 Freeborn AEB, 4/15 Wabasha JJS. Record early north (by over one week!) **3/21** Grant DKM, SPM, followed by 4/15 Todd JSK, SID, 4/24 Kanabec CAM.

Black-capped Chickadee — Observed throughout the state.

Boreal Chickadee — All reports: Aitkin, Beltrami, Cook, Lake, Lake of the Woods (9 birds 3/5, GMM, JMF), St. Louis.

Tufted Titmouse — Reported from Fillmore, Goodhue, Houston, Winona.

Red-breasted Nuthatch — Reported in May from Olmsted (5/7 PWP) and Washington, culminating in 5/17 DFN. No reports from the South-central region or the western third of the state. Observed throughout the season north.

White-breasted Nuthatch — Reported throughout the state.

Brown Creeper — Observed in 22 south and 14 north counties. Late south 5/10 Goodhue NAMC, 5/26 Waseca JPS. Record-high count 4/14 St. Louis (**78** at Duluth) JRN; also note 15 at one time in Washington (4/5, DPS). Prior record-high counts, 30 in fall and 23 in spring, were also at Duluth.

ROCK WREN — One at the entrance to Acacia Cemetery in Mendota Heights, Dakota County, was seen, documented, and photographed by many observers 4/28–5/2 Dakota †DWK, JO, including last date documented 4/30 †PCC.

Carolina Wren — Apparently the same individual (see winter report) reappeared 3/18–5/2 Rice m.ob. Also seen 3/28, 5/4 (2) Hennepin (Minnetonka) CAP, 5/18 Olmsted (same as winter report?) OWB.

House Wren — Early south 4/15 Dakota JPM, 4/19 Olmsted OWB, then frequent reports starting 4/23. Early north 5/1 Otter Tail EJE, 5/4 Clay RHO (median 4/29). A 4/13 north report lacked details and was

Rock Wren, 1 May 2003, Mendota Heights, Dakota County. Photo by Terry Brashear.

more likely a Winter Wren.

Winter Wren — Overwintered through 3/2 Hennepin (Mounds Spring Park) SLC. Early south 3/21 Rice TFB, 4/1 Olmsted PWP, 4/2 Dakota ADS (median 3/27). Early north 4/11 Lake of the Woods GMM, JMF, 4/14 Pine RBJ (median 4/6).

Sedge Wren — Arrived south 4/28 Freeborn AEB, 4/30 Rice TFB, 5/3 Brown BSm. Early north 4/25 Aitkin PEJ, 5/2 Traverse KJB (median 5/4).

Marsh Wren — Arrived on time north and south. Early south 4/27 Lac Qui Parle PHS, 4/28 Fillmore JJS. Early north 5/2 Douglas REH, 5/6 Traverse KJB.

Golden-crowned Kinglet — Overwintered in Otter Tail through at least 3/13. Migrated about ten days to two weeks earlier than expected, though confusion with overwintering individuals possible. Potential early south migrants 3/17 Martin RBJ, JEB and Murray NED, 3/19 Rice TFB (median 3/28). Early north 3/15 St. Louis JRN, 3/23 Aitkin WEN (median 3/27). High count 4/11 St. Louis (20) JRN. Late south 4/25 Anoka KJB and Olmsted PWP, 4/26 Hennepin SLC (median 5/6).

Ruby-crowned Kinglet — Observed in 29 south and 17 north counties. Early

south 3/30 Fillmore NBO, 3/31 Lac Qui Parle FAE. Early north 4/8 St. Louis JRN, 4/13 Clay RHO and Pine JMP. Late south 5/17 in four counties, then only 5/29 Hennepin SLC.

Blue-gray Gnatcatcher — Reported from all regions except Northwest and Northeast, yet found as far north as Cass and Wadena in North-central. Early south 4/20 Fillmore JJS, 4/24 Brown JSS and Carver RMD, 4/25 in three more counties. Early north 4/26 Morrison BWF, 5/2 Cass MRN, 5/3 Otter Tail EJE.

Eastern Bluebird — Probable migrants in mid-March, but see winter report. Early south 3/13 Freeborn AEB, 3/14 Dakota KJB, 3/15 Hennepin SLC and Wabasha OWB. Early north 3/12 Becker *fide* JMJ, 3/19 Todd JSK, SID.

Mountain Bluebird — Male found 4/10 Kandiyohi (near Kandiyohi) ES; refound and documented 4/11 †HHD, †CBr.

Townsend's Solitaire — Two reports from Lake: 3/9–10 Castle Danger PSc *fide* DRB, 3/15–23 Two Harbors NAJ, JWL.

Veery — Found in all regions except the Southwest. Early south 5/2 Olmsted PWP, 5/7 Anoka KJB and Mower RDK, RCK (median 5/1). Early north 5/7 Pine JMP, 5/10 Todd BWF (median 5/9). A 4/13 sighting in Watonwan submitted without details would have been record early for this species, but in all likelihood was a Hermit Thrush (see ***The Loon*** 67:44–45).

Gray-cheeked Thrush — Arrived and departed on time. Early south 4/30 Anoka KJB, 5/3 Lac Qui Parle BJU. Early north 5/9 Traverse KJB, 5/12 Otter Tail SPM, DKM. Late south 5/24 Lac Qui Parle FAE, 5/29 Dakota ADS. Late north 5/26 Morrison BWF, 5/28 Cook RBJ.

Swainson's Thrush — Reported from all regions of the state. Early south 4/30 Anoka KJB and Lac Qui Parle BJU, 5/1 McLeod RWS. Early north 5/8 Wilkin KJB, 5/10–13 in ten counties. Late south 5/31 Rock KRE, also see summer report. Highest reported counts 5/21 Anoka (12) KJB, 5/22 Clay (9) PHS. Four undocumented north reports—4/9 Pine, 4/15 Polk, 4/23 Pine, 4/25 Carlton—were excluded due to potential confusion with Hermit Thrush, which has a median north arrival date of 4/11. **Note**: the record early north date for Swainson's Thrush is 4/18.

Hermit Thrush — Early south (but also see winter report) 4/1 Fillmore NBO, 4/3 Mower RDK, RCK. Early north 4/13 Todd JSK, SID, 4/14 Pine JEB, RBJ and St. Louis JRN. Late south 5/10 Goodhue, Hennepin, Mower.

Wood Thrush — Only western report: Lac Qui Parle. Early south 5/3 Steele NFT, 5/4 Anoka KJB and Lac Qui Parle JEB, RBJ. Early north 5/8 Todd JSK, SID, 5/10 Morrison DCT, MAJ.

American Robin — Seen throughout the state. Highest reported count 4/14 St. Louis (1000) FJN.

Varied Thrush — Male from winter season observed through 3/12 Stearns AFG, HHD, DRu, JJS. Also reported 3/10+ Faribault (Blue Earth) *fide* AXH, 4/18 Beltrami (Kelliher) CL, 4/19 Hubbard (male, 3 miles south of Park Rapids) †WHa.

Gray Catbird — Found in all regions. Early south 5/2 Washington DPS, 5/3 Freeborn AEB, 5/4 in four counties. Early north 5/4 Kanabec CAM, 5/8 Cass JWL, 5/9–10 in five counties.

Northern Mockingbird — Major influx. First reported 4/14 Goodhue (Frontenac S.P.) KLa, 4/25–5/18 Mower (Hormel N.C.) m.ob., 4/29 Freeborn NAJ, CRM *et al.*, plus two in Bloomington, Hennepin County (same bird?). Nine birds arrived in early May: 5/1 Hennepin (Bass Ponds), 5/2 Stevens (Morris), 5/3 Freeborn (White Woods C.P.), 5/3 Cook (Schroeder), 5/3 St. Louis (Church Rd., Duluth), 5/4 Winona, 5/5 **Steele** (Owatonna) †NFT, 5/7

Becker (Tamarac N.W.R.), and 5/10 Pine. Seven birds reported during the last week of May: 5/23 Lake (Two Harbors), 5/25 St. Louis (Sax-Zim bog), 5/25 Cook (Grand Marais), 5/26 Cook (Schroeder), and a surprising three individuals at Split Rock Cabins 5/26 Lake *fide* AXH. Grand total 20 or 21 birds!

Brown Thrasher — Arrived south 4/7 Dakota JPM, 4/9 Carver RMD; both preceded recent median arrival date (4/14). Early north 4/23 Pine JMP, 4/26 Kanabec CAM, 4/27 Wadena PJB (median 4/25).

European Starling — Seen statewide.

American Pipit — Only nine reports from nine different counties (five of these in western regions). Early south 3/25 Dakota ADS, 4/3 Swift KJB. Late south 5/6 Carver RMD, 5/9 Pope JJS. Only north reports: 5/10 Clay RHO, NAMC, 5/19 Red Lake (10) JEB, RBJ, 5/21 Cass JJS.

SPRAGUE'S PIPIT — One seen 5/1 **Stevens** (Pomme de Terre City Park in Morris) †JMP.

Bohemian Waxwing — All reports from northern third of the state: Aitkin, Becker, Carlton, Cass, Polk, and late north 4/13 St. Louis (35) TPW, 4/15 Cook RBJ. High count 3/6 St. Louis (225) FJN.

Cedar Waxwing — Reported statewide.

Blue-winged Warbler — Reported from 17 south counties, including early reports 5/3 Hennepin DCZ, 5/4 Goodhue SWe. Only western observation 5/17 **Pope** RBJ (second county record). Two north reports: 5/17–21 Todd JSK, SID, BWF, 5/26 **Morrison** (Charles Lindberg S.P.) BWF.

Golden-winged Warbler — Arrived within one day of recent medians. Early south 5/4 Hennepin SLC, 5/6 Rice TFB, 5/10 in seven counties. Early north 5/8 Cass JWL, 5/14 Todd JSK, SID, 5/15 Aitkin WEN. Late south (away from known breeding areas) 5/26 Nicollet ChH. Territorial birds found at periphery of usual range 5/24 Pennington (Hickory Twp.) JMJ, PHS.

Tennessee Warbler — Reported from all regions. Early south 5/3 Freeborn AEB and Hennepin DWK, SLC (median 4/28). Early north 5/8 Douglas DPJ and Wilkin KJB (median 5/6). Still present in at least four south counties 5/31, also see summer report.

Orange-crowned Warbler — Seen in all regions. Early south 4/18 Hennepin PEJ, 4/19 Houston FZL. Early north 4/25 Wadena PJB, 4/27 Otter Tail SPM, DKM. Late south 5/17 in four counties, then only 5/22 Hennepin SLC. Late north 5/22 Clay (3) PHS, 5/23 Itasca JJS, but see summer report!

Nashville Warbler — Early south 4/23 Hennepin OLJ, 4/26 Lac Qui Parle BJU. Early north 5/5 Clay RHO, 5/6 Aitkin WEN and Kanabec CAM. Late south (away from known breeding areas) 5/31 Fillmore NBO.

Northern Parula — Early south 5/3 Goodhue DAB and Hennepin SLC, DWK. Early north 5/8 Douglas DPJ and St. Louis ALE. Late south 5/20 Brown BSm and Hennepin SLC, 5/24 Anoka JLH.

Yellow Warbler — Early south 5/1 Hennepin PEJ and Rice TFB. Early north 5/5 Clay RHO, 5/7 Otter Tail EJE. Peak number 5/22 Clay (20) PHS.

Chestnut-sided Warbler — Arrived with two days of recent medians. Early south 5/4 Hennepin SLC, 5/7 Fillmore NBO and Freeborn AEB. Early north 5/8 Cass JWL, 5/10 Morrison, Otter Tail, Todd.

Magnolia Warbler — Arrived on time. Early south 5/5 Hennepin DWK, 5/9 Freeborn, Olmsted, Rice. Early north 5/10 Kanabec CAM, Otter Tail (4 reports) and Todd. High counts 5/15 Anoka (12) KJB, 5/22 Clay (10) PHS. Late south 5/31 Hen-

nepin DWK, PEJ.

Cape May Warbler — Found in every region. Early south **4/30** (second earliest in state) Fillmore NBO, 5/6 Lac Qui Parle FAE (median 5/6). Early north 5/9 Kanabec CAM, 5/10 Todd m.ob. (median 5/9). Late south 5/23 Brown BSm, 5/24 Washington DFN.

Black-throated Blue Warbler — South reports: 5/10 Washington NAMC, 5/13–14 **Freeborn** DDM, BJM, AEB, 5/28 Anoka (Pioneer Park) KJB. Only north reports from breeding grounds, where first found 5/17 Cook (10) MWS, 5/23 Lake (3) MWS.

Yellow-rumped Warbler — Overwintered south until 3/2 Hennepin SLC, 3/22 Dakota KJB. Early south migrants 4/10 Freeborn AEB, 4/12 Goodhue SWe, 4/13 in four counties. Early north 4/13 St. Louis ALE, JWL, 4/14 Pine JEB, RBJ. Late south (away from known breeding areas) 5/25 Lac Qui Parle BJU, 5/26 Nicollet ChH, 5/31 Rock KRE.

Black-throated Green Warbler — Arrived within two days of recent medians. Early south 4/28 Sherburne PLJ, 5/3 Freeborn AEB and Hennepin DWK, SLC. Early north 5/4 Becker JMJ, 5/5 Clay RHO, 5/6 Carlton LAW. Late south (away from breeding areas) 5/26 Waseca JPS.

Blackburnian Warbler — Observed in all regions. Arrived south 5/3 Freeborn AEB, 5/4 Rice TFB and Washington DFN. Early north 5/10 Kanabec CAM and Roseau NAMC, 5/13 St. Louis and Wadena. South reports through end of the season: 5/31 Dakota ADS, JPM.

Pine Warbler — Early south 4/25 Anoka KJB, 4/26 Hennepin SLC and Winona JJS (median 4/25). Record-early north **4/11** Morrison (Charles Lindberg S.P.) DDM, BJM, then 4/23 Otter Tail MO, 4/25 Aitkin and Wadena.

Palm Warbler — Also reported from every region. First south migrants 4/24 Stearns DRu, 4/25 Anoka JLH, KJB, Olmsted JJS and Rice TFB. Early north 4/23 Otter Tail MO, 4/24 Pine JMP, 4/25 Aitkin WEN (median 4/26). High count 5/6 St. Louis (38) JRN. Late south 5/22 Hennepin SLC, 5/23 Rice TFB (median 5/23).

Bay-breasted Warbler — Arrived south 5/5 Hennepin DWK, SLC and Scott DWK, then 5/10 in four counties. Record-early north **5/4** Todd JSK, SID, then no reports until 5/18 Aitkin, Red Lake and St. Louis (median 5/13). Late south 5/26 Dakota WCM, Nicollet ChH and Waseca JPS.

Blackpoll Warbler — Reported from all regions, including high count 5/22 Clay (36) PHS. Early south 5/6 Hennepin SLC, 5/7 Freeborn AEB. Early north 5/12 Wadena PJB, 5/15 Kanabec CAM, 5/17 Lake of the Woods, Otter Tail, Pennington. Late south 5/31 Anoka KJB and Rock KRE, also see summer report. No north reports later than 5/30 St. Louis SLF.

Cerulean Warbler — Observed in ten south counties beginning 5/8 Scott CMM (same as median), 5/10 Blue Earth and Nicollet ChH; also reported from Dakota, Freeborn, Goodhue, Houston, Rice, Washington, Wright. One north report: 5/21 Otter Tail (2 at Folden W.M.A.) EJE.

Black-and-white Warbler — Found in 32 south and 19 north counties. Arrived within one day of medians, south and north. Early south 4/27 Hennepin SLC, 4/28 Sherburne PLJ and Wabasha JJS. Early north 5/3 Clay DDW and St. Louis JWL, 5/4 Becker, Otter Tail, Polk. Late south (away from known nesting areas) 5/31 Rock KRE.

American Redstart — Arrived within one day of recent medians. Early south 5/3 Freeborn AEB, 5/4 Goodhue, Hennepin and Rice. Early north 5/8 Wilkin KJB, 5/9 Todd JSK, SID, 5/10 in seven additional counties.

Prothonotary Warbler — Observed in ten south counties as far north as Ano-

ka, Carver and Hennepin, and as far west as Freeborn, Le Sueur and Nicollet. Early south 5/10 in four Southeast counties, the date of the NAMC; since 1985, species has arrived later than 5/10 only once.

Worm-eating Warbler — No reports for second consecutive spring.

Ovenbird — Early south 5/1 Fillmore NBO, Hennepin SLC and Lac Qui Parle FAE (median 4/30). Early north 5/2 St. Louis NAJ, 5/4 Clay RHO and Kanabec CAM (median 5/4).

Northern Waterthrush — Arrived within one day of recent medians; found in all regions. Early south 4/25 Anoka KJB, 4/27 Fillmore JJS. Early north 5/4 Kanabec CAM, 5/7 Otter Tail EJE. Late south (away from known breeding areas) 5/25 Hennepin SLC.

Louisiana Waterthrush — Early south 4/20+ Houston JJS, m.ob., 4/26 Winona PWP, 4/28 Olmsted PWP. Also observed in Fillmore (Shadow Creek), Blue Earth (Williams C.P.), Rice, Nicollet, Washington (Falls Creek S.N.A. and William O'Brien S.P.). High count 4/27 Houston (5 at Beaver Creek Valley S.P.) FZL *et al.*

Kentucky Warbler — All reports: 5/14 Dakota (Lebanon Hills R.P.) SWe *et al.*, 5/17+ Blue Earth (max. 2 at Williams C.P.) CBr *et al.*, 5/17+ Dakota (Murphy-Hanrehan P.R.) †ADS, m.ob., 5/24 Dakota (Lebanon Hills R.P., same as 5/14?) †JPM, †ADS, †PEB.

Connecticut Warbler — Observed in 10 south and 10 north counties. Early south 5/10 Wabasha NAMC, 5/15 Fillmore NBO. Early north 5/17 St. Louis m.ob., 5/21–22 in six counties. Late south 5/29 Hennepin SLC, also see summer report.

Mourning Warbler — Reported from 20 south and 13 north counties. Early south (median 5/9) 5/10 Anoka REH, Houston NAMC and Scott PEJ, 5/14–15 in six counties. Early north (median 5/15) **5/8** Cass

Western Tanager, 15 May 2003, Wood Lake Nature Center, Hennepin County. Photo by Terry Brashear.

JWL, 5/17 St. Louis m.ob. and Todd JSK, SID. Late south (away from known breeding areas) 5/31 Rock KRE *et al.*, also see summer report.

Common Yellowthroat — Seen in 30 south and 18 north counties. Early south 5/3 Anoka KJB, 5/4 Hennepin DWK and Waseca JJS, peak migration 5/10–17 (39 reports from 21 south counties). Early north 5/9 Wilkin KJB, 5/10 in four counties.

Hooded Warbler — All reports: 5/8+ Dakota/Scott (Murphy-Hanrehan P.R.) m.ob., 5/15–18 Anoka (Bunker Hills Regional Park) KJB *et al.*, 5/24 **Stearns** (St. Joseph, second county record) †BR, †HHD, 5/26 Dakota (Lebanon Hills R.P.) OWB, BRL.

Wilson's Warbler — Observed in 23 south and 21 north counties. Early south 5/3 Freeborn AEB, 5/8–10 in 11 counties. Early north 5/10 Clay, Douglas, Kanabec, 5/14–18 in 13 counties. Late south 5/29 Hennepin SLC.

Canada Warbler — Seen in 13 south and 12 north counties. Early south 5/6 Olm-

Two Scarlet Tanagers, 15 May 2003, Reno, Houston County. Photo by Jeff Morrison.

sted PWP, 5/10 Steele NAMC. Early north 5/15 Kanabec CAM, 5/17 Todd JSK, SID and Wadena PJB. Late south (away from known breeding areas) 5/31 Hennepin SLC, DCZ.

Yellow-breasted Chat — One observed **5/20 Clay** (Gooseberry Park, Moorhead) †RHO (***The Loon*** 75:175).

Summer Tanager — All reports: 5/1–7 Freeborn (imm. male at Hartland) AEB, ph. DDM, 5/5–8 Chisago (imm. male at Chisago L.) ph. DAA, †SHA, 5/15–31+ **Dakota** (adult male at Lebanon Hills R.P.) †DE, †PEB, †JPM, †ADS, ph. JWa, m.ob., 5/19–25 Dakota (Rosemount) ph. GM, 5/20–22, no details, Freeborn (female at Myre-Big Island S.P.) RNS *et al.* Also see undocumented reports.

Scarlet Tanager — Seen in 23 south and 13 north counties, mostly in central and eastern regions — none in the Southwest. Early south 5/2 Steele NFT, 5/5 Fillmore NBO and Hennepin SLC. Early north 5/10 Otter Tail NAMC, 5/14 Wadena PJB.

Western Tanager — Documented 5/11–15 Hennepin (male at Wood Lake) SA, †CBr, †PEB, m.ob., 5/14 **Dakota** (female at L. Byllesby) †ADS. Also see undocumented reports.

Spotted Towhee — One male **5/17** Rock (near Luverne) †PHS, AXH. Also see undocumented reports.

Eastern Towhee — Found in 25 south and 9 north counties. No reports from Northwest, and only St. Louis in Northeast. Early south (median 4/14) 4/25 Steele NFT, peak migration 5/3–10 in 13 counties. Early north (median 5/4) **4/24**,

Eastern Towhee, 15 May 2003, Reno, Houston County. Photo by Jeff Morrison.

5/4 Pine KIM, BAP, 5/6 Otter Tail EJE.

American Tree Sparrow — Observed in 19 south and 17 north counties. Apparently migrated north earlier than usual. Late south 5/3 Brown BSm, only May report. Late north (median 5/11) 4/22 St. Louis SES. Highest reported count 3/23 Wadena (45) PJB.

Chipping Sparrow — Reported from 34 south and 19 north counties. Early south 3/20 Waseca JEZ, 3/24 Ramsey REH. Early north 4/13 Cass MRN, 4/14 Otter Tail SPM, DKM. Third highest count on record 5/14 Traverse (**320**) KJB.

Clay-colored Sparrow — Observed in 26 south and 18 counties. Early south (median 4/21) 4/26 Murray NED and Stearns DRu, 4/27–30 in five counties. Early north (median 4/27) 4/24 Kanabec CAM, 4/25 Otter Tail EJE. Second highest count on record 5/14 Traverse (**58**) KJB.

Field Sparrow — Arrived in 28 south counties (but see winter report) beginning 3/31 Hennepin SLC, then 4/10 Freeborn AEB, 4/11–15 in six counties. Record-early north **3/31** St. Louis JRN, then **4/11** Pine JMP, 4/24 Crow Wing MRN. Only other north reports: Otter Tail, Todd.

Vesper Sparrow — Reported from 25 south and 13 north counties in all regions, including Carlton and St. Louis in the Northeast. Early south (median 3/30) 4/10 Chippewa JEB, RBJ, peak migration 4/20–27 in 13 south counties. Early north 4/12 Otter Tail HCT, 4/13 Wadena PJB and Wilkin PCC.

Lark Sparrow — Observed in 12 south and 5 north counties. No reports from

Henslow's Sparrow, 31 May 2003, Murphy-Hanrehan Park Reserve, Scott County. Photo by Terry Brashear.

North-central or Northeast, and only Redwood in Southwest, Nicollet in South-central. Early south 4/18 Anoka KJB, 4/25 Anoka JLH and Dakota ADS. Early north 5/3 Clay *fide* JMJ, 5/4 Polk EEF.

Savannah Sparrow — Reported from 25 south and 17 north counties. Early south 4/6 Freeborn AEB, 4/7 Jackson KJB. Early north 4/18 Wilkin PCC, 4/21 Todd JSK, SID.

Grasshopper Sparrow — Observed in 18 south and 8 north counties. No reports from Northeast, and only Koochiching in North-central. Early south (median 4/28) 4/29 Goodhue BRL, 5/7 Redwood JJS. Early north (median 5/8) 4/28 Clay PHS, 5/10 Douglas, Koochiching, Pine, Polk.

Henslow's Sparrow — All reports: 5/5+ Winona (Great River Bluffs S.P.) JBD, m.ob., 5/7 **Redwood** (Redwood Falls) JJS, RAE, 5/7+ Scott (Murphy-Hanrehan P.R.) RBW, m.ob., 5/10 Goodhue (2 different locations) m.ob., 5/10 **Meeker** (Minnesota L.) †DMF, 5/16 Goodhue (Frontenac S.P.) KJB.

LeConte's Sparrow — Early south 4/20 Dakota JPM, 5/4 Scott PEJ; also reported from Anoka, Redwood. Observed in 10 north counties beginning 5/2 Aitkin SLF, 5/8 Aitkin WEN and Wilkin KJB.

Nelson's Sharp-tailed Sparrow — Only report: 5/13 McLeod (2 at Swan Lake Park) †DMF, †RWS.

Fox Sparrow — Reported from 24 south and 18 north counties. February reports from three south counties (please see winter report); probable early south migrants 3/13 Freeborn AEB, 3/15–17 in seven counties. Early north (but see winter report) 3/28 Todd JSK, SID, 3/30 St. Louis *fide* DRB. Late south (median 5/1) 4/22 Fillmore NBO. Late north 4/25 Wadena PJB, 5/10 Hubbard NAMC. Highest reported counts 4/1 Fillmore (50) NBO, 4/6 Hennepin (40) HCT, 4/17 Lake (40 at Two Harbors) JWL.

Song Sparrow — Observed in 35 south and 19 north counties. See winter report for overwintering south. Early north 3/23 Clay *fide* JMJ and Wadena PJB, 3/24 Pine JMP and St. Louis JRN.

Lincoln's Sparrow — Reported from 21 south and 14 north counties statewide. Early south 4/16 Nicollet LWF, 4/18 Rice TFB. Early north (median 4/25) 4/9 Pine JMP, 4/24 Clay RHO. Late south 5/17 Lac Qui Parle BJU and Rock PHS, 5/18 Hennepin SLC. Highest reported count 5/14 Traverse (11) KJB.

Swamp Sparrow — Seen in 31 south and 16 north counties. See winter report for overwintering south, and February in north. Probable early north migrants 4/14 St. Louis JRN, 4/23 Pine JMP.

White-throated Sparrow — Reported from 30 south and 17 north counties. See winter report for overwintering south and

north. Potential early north migrant 4/15 Kanabec BLA (median 4/11). Late south 5/26 Nicollet ChH, 5/31 Hennepin HCT. Highest reported count 5/4 Polk (**226**) EEF.

Harris's Sparrow — Seen in 22 south and 11 north counties. Overwintered south, plus February reports from Otter Tail (see winter report). Peak migration 5/2–14 south (17 counties). Probable early north migrants 5/4 Aitkin WEN, Clay RHO and Polk EEF. Late south 5/20 Lac Qui Parle BJU, 5/27 Murray NED. Late north (median 5/22) 5/18 Red Lake RBJ. Highest reported count 5/14 Traverse (140) KJB.

White-crowned Sparrow — Observed in 25 south and 16 north counties. Early south 4/24 Carver RMD, 4/27 Lac Qui Parle FAE. Early north 4/27 Aitkin WEN, 5/3–6 in six counties. Late south 5/20 Lac Qui Parle BJU, 5/21 Watonwan DLB. Late north 5/24 Aitkin SLF, 5/28 Cook JMP. Highest reported count 5/14 Traverse (23) KJB.

Dark-eyed Junco — Found in 28 south and 18 north counties. "Oregon" Juncos reported in Beltrami, Cass, Dakota, Otter Tail. Late south 5/10 Hennepin SLC, 5/12 Winona OWB. Peak count 3/28 Wadena (270) PJB.

Lapland Longspur — Seen in 16 south and 7 north counties. No reports from North-central, and only Lincoln in Southwest. Late south (median 5/1) 5/4 Dakota JPM and Stearns DRu. Late north (median 5/18) 5/4 Marshall (100s) ALE, 5/28 Cook MCBS. Highest reported count 3/1 Becker (500) JPM.

Smith's Longspur — All reports: **3/27** Martin †JJS, CAK, 4/27 Cottonwood (6 at Red Rock Prairie) CRG *et al.*

Chestnut-collared Longspur — Reported 4/13+ Clay (Felton Prairie) PCC, m.ob.

Snow Bunting — Absent from the south after 3/14 Dakota KJB; also reported from Fillmore, Freeborn, Steele, and Waseca. Observed in 10 north counties including (late north) 5/11 St. Louis ALE. Highest reported count 3/29 Aitkin (400) WEN.

Northern Cardinal — Observed in 29 south and 17 north counties as far north as Marshall in Northwest, Beltrami in North-central, and Lake (Two Harbors) and St. Louis (Aurora) in Northeast.

Rose-breasted Grosbeak — Seen in 36 south and 20 north counties. Arrived exactly on median dates south and north. Early south 4/27 Brown BSm; peak migration 5/3–10 in 24 counties. Early north 5/3 Kanabec, Pine, Todd and Wadena; peak migration 5/9–15 in 10 counties.

Blue Grosbeak — All reports: 5/17+ Murray NED, 5/17+ Rock (Blue Mounds S.P.) AXH, PHS *et al.*

LAZULI BUNTING — Adult male 5/31 **Rock** (Blue Mounds S.P.) †KRE *et al.*

Indigo Bunting — Seen in 27 south and 14 north counties. Early south 5/3 Freeborn AEB, 5/4 Rice TFB, peak migration 5/15–19 (17 counties). Early north 5/9–10 Todd JSK, SID, BWF, 5/11 Wadena PJB.

PAINTED BUNTING — Adult male 5/29 **Pine** (Bruno) v.t. TB. Twelfth state record but the eighth since 1994!

Dickcissel — All reports: 5/25 Renville PME, 5/28 Yellow Medicine BJU, 5/31 Brown, Dakota, Rock.

Bobolink — Found in 32 south and 16 north counties. Early south (median 5/3) 4/29 Goodhue BRL, 5/3–5 in eight counties. Early north (median 5/6) 5/4 Todd JSK, SID, 5/9–10 in nine counties.

Red-winged Blackbird — Observed in 51 counties (71 last spring). Many winter reports south (please see winter report). Overwintered north in St. Louis; presumed migrants 3/15 Aitkin WEN, 3/17 Otter Tail, Pine, Todd.

Eastern Meadowlark — Reported from 27 south and 10 north counties. Early south 3/17 Houston FZL, 3/22 Fillmore, Hennepin, Watonwan. Early north 3/22 Aitkin WEN, 3/24 Pine JMP. Only reports from western regions: 5/7 Redwood JJS, 5/26 Becker BRK.

Western Meadowlark — Reported from 30 south and 11 north counties, and in all regions except the Northeast. Early south 3/14 Lac Qui Parle BJU, 3/15 Jackson PEJ, DFN. Early north 3/14 Traverse FVS, 3/17 Clay m.ob.

Yellow-headed Blackbird — Seen in 28 south and 15 north counties and in all regions, but only St. Louis in Northeast. Early south (median 3/30) 4/3 Big Stone KJB; peak migration 4/13–19 in nine counties. Early north (median 4/10) 4/12 Otter Tail HCT; peak migration 4/22–28 in five counties. Highest reported count 4/23 Nicollet (100) LWF.

Rusty Blackbird — Reported from 14 south and 7 north counties. Overwintered in three north counties including previously unreported bird in St. Louis JRN. Late south 4/21 Meeker BWF, 4/26 Sherburne REH. Late north (median 5/4) 4/14 Pine RBJ and St. Louis PHS.

Brewer's Blackbird — Seen in 19 south and 13 north counties and in all regions of the state, but only Jackson in the Southwest. Early south 3/24 Lac Qui Parle BJU, 3/27 Jackson and Martin JJS. Early north (median 4/1) 3/23 Cass MRN, 4/5 Todd JSK, SID.

Common Grackle — Observed in 51 counties. Migrants indistinguishable from overwintering birds (see winter report). Peak count 4/20 Polk (300) EEF.

GREAT-TAILED GRACKLE — Accepted records 4/17–19 **Mower** (adult male near Austin) ph. †JEM *et al.*, 4/18–23 **Brown** (2 adult males near Sleepy Eye lagoons) †BSm, m.ob., 4/26 **Dakota** (adult male by Vermilion, present since 4/22 according to local residents) †JR, †ADS, ph. DDM, 5/31+ **Rock** (3 males and 3 females at Hills) †KRE *et al.* Reported for the sixth consecutive year in Jackson (Grovers L.) but unfortunately without details.

Brown-headed Cowbird — Reported from 54 counties statewide. Early south (median 3/15, but see winter report) 3/16 Dakota SWe, Freeborn AEB and Murray NED. Early north (median 4/6) 4/12 Aitkin WEN, 4/14–15 in four counties.

Orchard Oriole — Reported from 17 south and 7 north counties, including unusual locations in Crow Wing (5/19 near Crosby JSB and 5/21 Fort Ripley ph. BiM) and **Lake** (5/23, male at Two Harbors) JWL. Early south 5/7 Freeborn AEB, 5/10 in four counties including **Waseca** JEZ. Early north **5/10** Polk JMJ, 5/14 Traverse KJB. Highest reported count 5/17 Rock (4 pair near Luverne) AXH, PHS.

Baltimore Oriole — Reported from 36 south and 18 north counties statewide. Overwintered north (see winter report) in Beltrami and Lake; the latter stayed through 4/20 (Silver Bay) BSN. Singing male **3/27** Hennepin (Minneapolis) SKS probably also overwintered, since earliest date on record 4/10 and early south migrants first reported 4/29 Rice TFB, 5/3–4 in six counties. Early north 5/4 Aitkin WEN and Pine KIM, BAP, 5/5 Becker BRK and Otter Tail SPM, DKM.

Pine Grosbeak — Late north 3/22 Clearwater JMP, also reported from Lake of the Woods, St. Louis.

Purple Finch — Observed in 10 south and 20 north counties. Late south 5/10 Anoka, Goodhue and Winona, 5/16 Anoka DCZ. Highest reported count 4/16 Polk (40) EEF.

House Finch — Reported statewide.

Red Crossbill — Reported in March from Carlton, Lake, St. Louis. No reports away from Northeast.

White-winged Crossbill — Reported from Aitkin (last seen 5/3, WEN), Cook (nested DAG, also seen 5/29, MCBS), Itasca, Lake (nested, JWL), Roseau, and St. Louis (last seen 5/17, m.ob.). No south reports.

Common Redpoll — Only reports: 3/1, 3/23 Lake JWL, 3/5 Otter Tail (1) *fide* JMJ.

Hoary Redpoll — None.

Pine Siskin — Only south report: 3/3 Big Stone NSp. Observed in ten counties in the north.

American Goldfinch — Statewide.

Evening Grosbeak — Reported from nine north counties including Roseau in the Northwest.

House Sparrow — Statewide.

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Abbreviations

C.P.	County Park
H.P.B.C.	Hastings-Prescott Bird Count
m.ob.	many observers
N.W.R.	National Wildlife Refuge
P.R.	Park Reserve
R.P.	Regional Park
S.N.A.	Scientific and Natural Area
S.P.	State Park
W.M.A.	Wildlife Management Area
W.S.H.C.	West Skyline Hawk Count

Summer Tanager / Scarlet Tanager Mixed-Species Nesting

Bruce A. Fall

On 14 June 2003, I found an adult (after-second-year) male Summer Tanager (*Piranga rubra*) at Murphy-Hanrehan Park Reserve near Savage, Scott County. Suspecting that he might be breeding (a potential first state record), I visited his territory frequently over the next month. Eventually I discovered that he was paired with a female Scarlet Tanager (*P. olivacea*), and that both were feeding a Brown-headed Cowbird (*Molothrus ater*) nestling, which later fledged. I last recorded the male on 9 August.

Territory

By plotting on a topographical map locations where he regularly sang or called, I determined that his large territory was 240 m in the longest dimension and had an area of 2.5 hectares (ha). Its location was about 0.6 km east-northeast of the junction of Blaylock Circle and Sunset

Female Scarlet Tanager, 23 July 2003, Murphy-Hanrehan Park Reserve, Savage, Scott County. Photo by Jim Mattsson.

Lake Road. Prior to mid-July I found him most frequently in the lower elevation in the central part of the territory, a 1 ha open grove of medium-sized (mostly 12–14 m) quaking aspen (*Populus tremuloides*). He often used some of the tallest aspens as song perches. West of the aspens was a small (0.3 ha) open grassy pond. The rest of the territory peripheral to the aspens and pond was upland oak forest, primarily white oak (*Quercus alba*) and northern pin oak (*Q. ellipsoidalis*) with a canopy height of 18–20 m and a shrub layer dominated by common buckthorn (*Rhamnus cathartica*). On 20 June, I observed him for two hours singing frequently from the oak woods east of the aspens and less than 50 m from the eventual location of the nest. Later, through mid-July, he usually sang and called in bouts of a few minutes duration, one to three bouts per hour. During extended observation periods on 3, 5, and 6 July (365 minutes total, early to mid morning), I recorded ten bouts of calling/singing. The two longest lasted seven and nine minutes, and he vocalized a total of 44 minutes (12% of the time). I later determined that the nest probably was in late egg-laying or very early incubation stages on those dates. From 14 June through 13 July I visited his territory on ten days (12 hours total observation time) without finding any evidence that he had a mate.

Nest and Behavior

On my next visit, in the early morning of 18 July, I noted that the male's behavior had changed markedly. Instead of sporadically vocalizing, he was calling loudly and continuously at a high rate (30 calls per minute) from low and conspicuous perches in the upland oaks east of the aspen grove. Soon I heard and saw a female Scarlet Tanager which approached and then joined the Summer Tanager and remained with him for several minutes. The male continued calling at this high rate for over 1.5 hours, almost without interruption. Repeatedly the female joined him and they moved about close together for several minutes, behaving as a mated pair. Eventually I followed the female as she brought food to the nest, which was near the far east edge of the territory (100 m from the center of the aspen grove). Soon, the male also began making nest visits. The nest was about 17 m off the ground saddled on a horizontal branch of a large (20 m) white oak, and was well concealed from below and above by oak leaves. It contained one nestling about four days old, which I later confirmed was a Brown-headed Cowbird.

After finding the nest, I spent an additional ten hours (18–25 July) observing the adults' behavior. During this period the male sang and called frequently near the nest, usually within 25 m and often less than 5–10 m. The Summer Tanager was clearly the territory owner of the woodland around the nest site and was the social mate of the female Scarlet Tanager, but of course he may not have contributed genetically to the presumed tanager eggs. This situation was complicated by the occasional presence of an adult (after-

Male Summer Tanager, 23 July 2003, Murphy-Hanrehan Park Reserve, Savage, Scott County. Photo by Jim Mattsson.

second-year) male Scarlet Tanager, which made six brief visits with food near or (three times) to the nest. On three of these visits, he was discovered and chased or displaced by the larger Summer Tanager. During the other three, the Summer Tanager either failed to detect him or didn't respond aggressively. I observed the male Scarlet Tanager for a total of only a few minutes, and I heard Scarlet Tanager song only a few times from the surrounding woods, and never within 50 m of the nest. During the six brief appearances the male Scarlet Tanager was always silent and furtive. In contrast the Summer Tanager was usually conspicuous by calls, song, and bold behavior. He and the female frequently interacted, which involved close approach, remaining together for several minutes, flying together, and several instances of female "begging" (wing-quivering as if soliciting food). However, I did not observe copulation.

Although Scarlet Tanagers are a common breeding species in the park, territorial males were apparently absent from most if not all of the Summer Tanager's large territory, except for the infrequently intruding male at the nest whose breeding status was unknown. The core half of the Summer Tanager territory (aspen woods with grassy openings) seemed marginal habitat for Scarlet Tanager, but the peripheral part was mature upland oak forest, locally preferred habitat for that species. In that habitat there were at least two Scarlet Tanager territories adjacent to that of the Summer Tanager, but I could not determine if the boundaries were non-overlapping. Whether these two species are interspecifically territorial is equivocal. Shy (1984) reported they were, but another study (Robinson 1996) demonstrated that neither responded aggressively to songs of the other in controlled experiments.

Feeding Rates

During 2.75 hours of continuous nest monitoring on 19 July, I recorded the following nest visits: female Scarlet Tanager 19; male Summer Tanager 8; male Scarlet Tanager 2. On 23 July (two hours of monitoring), the visitation rate was lower: female Scarlet Tanager 6; male Summer Tanager 2. Combined totals (4.75 hours; 37 nest visits) were: female Scarlet Tanager 25 (68%); male Summer Tanager 10 (27%); male Scarlet Tanager 2 (5%). A visit involved a tanager entering the nest. On five occasions, one of the pair visited the nest almost immediately after the other had left. Due to nest height and concealment, I was not always able to document actual food delivery although I presume that most if not all visits were for that purpose. The only food items I identified were harvestmen (Opiliones); at least three of these distinctive arachnids were fed to the cowbird by the female.

Using spotting scopes, two other observers (Susan Fall, James P. Mattsson) and I never detected more than a single young in the nest, although the view was obstructed due to height and concealing leaves. On the day prior to fledging we were certain there was only one large and active nestling. The nest was too high to

check for the possible presence of unhatched eggs. The rate of nest visitation by the adults on 19 July (about ten trips per hour) seems high for only a single four-day-old nestling. However, feeding rates for Brown-headed Cowbird young generally exceed those for host young, and the observed rate is similar to those reported elsewhere for other cowbird hosts (Lowther 1993).

Identification

The tentative identification of the nestling as a cowbird was confirmed after it fledged. Early in the morning of 25 July, Susan Fall and I found the nest empty. Soon we discovered the fledgling about 5 m off the ground in a tree 30 m from the nest, where it was being fed by the female Scarlet Tanager. It probably reached this location by flying, and I believe that it fledged the previous day. The male continued to sing sporadically near the nest site, and did not approach the cowbird during two hours of observation.

We studied the cowbird at very close range with a spotting scope. Plumage and bill shape appeared the same as that of the many other cowbird nestlings and fledglings that I have seen, although I have little experience with similar-aged Scarlet Tanagers and none for Summer Tanager. The cowbird's secondaries, short primaries and rectrices, and coverts were dark grayish-brown fringed with paler grayish buff. Underpart and back feathers were mostly grayish-buff with darker gray-brown centers. There were no olive, yellowish, or greenish-yellow colors that are described for juvenal plumage of both tanagers (Mowbray 1999, Robinson 1996).

The female was identified as a Scarlet Tanager (see Kaufman 1988) by characteristic calls ("chik'-burr") which she gave frequently (even while in the nest); by plumage (olive-green body, darker olive-gray wings and tail); by bill structure and color (relatively small, brownish gray); and by general size (noticeably smaller than the Summer Tanager male). The two male tanagers were aged as after second year by plumage (Pyle 1997) — the Scarlet Tanager's flight feathers were all black and the Summer Tanager's head and body were uniformly red.

Nest History

I made some reasonable assumptions (based in part on Lowther 1993 and Mowbray 1999) in order to backdate the probable history of this nest: three days nest building; late season clutch of three tanager eggs; 11-day incubation period for cowbird egg; nestling cowbird fledged on 24 July at age ten days. Under these assumptions, the nest history would have been: nest building, 28–30 June; egg laying, 1–3 July; incubation, 3–14 July; nestling, 14–24 July. The late date suggests this was a renesting after a failed earlier nest; however another possibility is that the mixed-species pair bond was established late and this was the first and only nest. Lack of any evidence of a female in the territory prior to 18 July precludes distinction between these possibilities.

On 9 August (16 days after the cowbird fledged) I saw the Summer Tanager and heard him calling both in the aspen grove and in the oaks near the nest site. Close and extended observation indicated that he probably had not yet started prebasic molt as all his flight feathers appeared intact and worn. I could not locate the female Scarlet Tanager or the cowbird fledgling.

Breeding Status

Summer Tanager is rare but regular in Minnesota in spring, but there have been very few summer reports and no breeding records. Prior to 2003 there were only seven June–July records (***The Loon*** *Seasonal Reports*, Janssen 1987), one of which was a non-territorial second-year male I found at Murphy-Hanrehan on 24 June 2000. In 2003, there was another mixed pair involving a male Summer Tanager and female Scarlet Tanager at Lebanon Hills Park, Dakota County, about 18 km east-northeast of the Murphy-Hanrehan pair. The Lebanon Hills pair attempted at least two nests, neither of which was successful (see the accompanying article by

James P. Mattsson, ***The Loon*** 75:226–230). In Wisconsin, this species is also very rare in summer, with only three June–July records in the past century (R. Domagalski, pers. comm.). The only nesting records in Wisconsin are from over a century ago (Robbins 1991). In Iowa, the species is a rare summer resident; the few nesting records are all in the southern half of the state (Kent and Dinsmore 1996).

Hybrids

There are three specimens of hybrids for which one or both of these tanagers are the presumed parental species. These include a male Summer Tanager × Scarlet Tanager hybrid apparently from Nebraska (McCormick 1893) and two male Scarlet Tanager × Western Tanager (*P. ludoviciana*) hybrids, one from Minnesota (Tordoff 1950) and the other from Kentucky (Mengel 1963). Morse and Monson (1985) reported a nesting mixed pair in southeast Arizona involving a male Flame-colored Tanager (*P. bidentata*) and female Western Tanager that fledged young, and there have been more recent sightings of mixed pairs and purported hybrids between those two species in that same region (Hudon 1999, Rosenberg and Jones 2001). It is now recognized that hybridization does not necessarily indicate close evolutionary relationships between species; limited interbreeding merely represents the retention of an ancestral characteristic. In the case of these tanagers, molecular phylogenies show that Flame-colored and Western tanagers are sister species (i.e., most closely related to each other), but Scarlet and Summer tanagers are not, although all five U.S. *Piranga* tanager species are members of the same clade (Burns 1998).

Literature Cited

Burns, K. J. 1998. Molecular phylogenetics of the genus *Piranga*: implications for biogeography and the evolution of morphology and behavior. *Auk* 115:621–634.

Hudon, J. 1999. Western Tanager (*Piranga ludoviciana*). *In* The birds of North America, no. 432 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Janssen, R. B. 1987. Birds in Minnesota. Univ. of Minnesota Press, Minneapolis.

Kaufman, K. 1988. Notes on female tanagers. *American Birds* 42:3–5.

Kent, T. H., and J. J. Dinsmore. 1996. Birds in Iowa. Published by the authors, Iowa City and Ames, Iowa.

Lowther, P. E. 1993. Brown-headed Cowbird (*Molothrus ater*). *In* The birds of North America, no. 47 (A. Poole and F. Gill, eds.). Academy of Natural Sciences, Philadelphia, and American Ornithologists' Union, Washington, D.C.

McCormick, L. M. 1893. A hybrid tanager. *Auk* 10:302–303.

Mengel, R. M. 1963. A second probable hybrid between the Scarlet and Western tanagers. *Wilson Bulletin* 75:201–203.

Morse, R. J., and G. Monson. 1985. Flame-colored Tanager in Arizona. *American Birds* 39:843–844.

Mowbray, R. B. 1999. Scarlet Tanager (*Piranga olivacea*). *In* The birds of North America, no. 479 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Pyle, P. 1997. Identification Guide to North American Birds, Part I. Slate Creek Press, Bolinas, CA.

Robbins, S. D. 1991. Wisconsin Birdlife. Univ. of Wisconsin Press, Madison.

Robinson, W. D. 1996. Summer Tanager (*Piranga rubra*). *In* The birds of North America, no. 248 (A. Poole and F. Gill, eds.). Academy of Natural Sciences, Philadelphia, and American Ornithologists' Union, Washington, D.C.

Rosenberg, G. H., and R. M. Jones. 2001. The regional reports: Arizona. *North American Birds* 55:332–336.

Shy, E. 1984. Sympatry and allopatry of song in North American tanagers. *Behavioral Ecology and Sociobiology* 15:189–195.

Tordoff, H. B. 1950. A hybrid tanager from Minnesota. *Wilson Bulletin* 62:3–4.

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Summer Tanager and Scarlet Tanager: Interspecific Pairing in Minnesota

James P. Mattsson

From 21 May – 27 July 2003, in Dakota County, a male Summer Tanager (*Piranga olivacea*) maintained and defended a territory and paired with at least one female Scarlet Tanager (*P. rubra*) as evidenced by copulation, incubation, and feeding of a fledgling Brown-headed Cowbird (*Molothrus ater*) of unknown origin. Prior to 2003, there has been no evidence of attempted breeding by Summer Tanager, a regular but rare visitant, in Minnesota. Interspecific pairing between *Piranga* tanagers in North American apparently is very rare. This article provides the first documented field observations of Summer Tanager / Scarlet Tanager pairing for Minnesota. Amazingly, only 18 km away in Murphy-Hanrehan Park Reserve, Scott County, a second pairing between these two species was also documented in 2003 (see the accompanying article by Bruce Fall, ***The Loon*** 75:221–225).

Initial Encounter

On 21 May 2003, I pursued an odd sounding tanager-like song and located an adult male Summer Tanager. The bird was along a hiking and horse trail on the northwest side of an un-named lake located approximately 400 m southwest of Holland Lake in Lebanon Hills Regional Park, Dakota County. It foraged between 2–5 m above ground as close as 15–20 m and sang its burry song continuously (10–12/minute) for about 15 minutes before I left to take field notes and contact the birding community.

Nest 1

The Summer Tanager remained in the vicinity for the next eight days, singing regularly, and was observed on several occasions by myself and others chasing both male and female Scarlet Tanagers. Because he was behaving territorially, I decided to follow him for an extended period to determine if a female was present or to look for any other evidence of nesting. On the morning of 29 May, at 6:30 A.M., he was singing rather quietly near the trail that bisected what eventually I determined to be his territory. A second tanager, presumably a Scarlet, was singing along the west side of a small pond about 50 m from the trail. I walked to the east side of the pond and noticed the Summer Tanager perched on a branch 10 m directly over my head. After a few seconds, the Summer Tanager flew to the west side of the pond and perched at the forest edge near the singing Scarlet Tanager, who immediately stopped singing. At 6:45 A.M. I returned to the original spot where the Summer Tanager had been singing along the trail. Within a few seconds of arriving, I spotted a female Scarlet Tanager moving about in the mid canopy about 8–10 m directly overhead. She carried a piece of twig-like material in her bill and quickly flew off to the south toward the lake. I then noticed the male Summer Tanager in the vicinity where the female had flown. Within a minute or so, the female flew in overhead once again and was immediately joined by the male. On a bare branch about 8 m directly overhead, she immediately gave a brief solicitation characterized by extending her head forward and slightly upward, and fluttering her wingtips which were held slightly away from her body. At this point, I then saw the Summer Tanager chase away another bright red tanager-sized bird that I presumed to be a Scarlet. The Summer Tanager quickly returned and perched near the female who was again soliciting. The male responded similarly by leaning forward, lowering his head,

Summer Tanager, 28 June 2003, Lebanon Hills Regional Park, Dakota County. Photo by Jim Mattsson.

raising his crown feathers, raising his tail slightly, and vibrating his wings rapidly while raising them slightly over his back (described in Robinson 1996). After a few seconds, he hovered over her back and copulated with her for perhaps 4–5 seconds and then landed beside her. She immediately flew off in the same direction as previously and once again disappeared in the mid-canopy. This time I was able to see movement through my binoculars and realized I was seeing her turning her body in a nesting structure. I relocated and found a better vantage from which to observe the nest through my spotting scope. The female was in the nest busily positioning nest material with her bill and shaping the bowl with her body. After about one minute, she flew toward me and perched 15 m away and was immediately joined by the Summer Tanager. She quickly obtained another twig and returned to the nest where she placed it in the bowl. She then positioned her breast low in the nest and rotated 360 degrees as she formed the bowl. She then flew off and was not seen again during the next half hour. I returned to the site at 5:00 P.M. and saw the female briefly at the nest. At 5:15 P.M., I heard the call of a male Scarlet Tanager just to the west and immediately the Summer Tanager began calling sharply from the vicinity of the nest site, but out of view.

The following morning (30 May) at 6:45 A.M., Drew Smith, Bruce Fall, and I arrived at the site and we immediately saw a male Scarlet Tanager along the trail about 30 m from the nest. A minute later, the Summer Tanager arrived and chased the Scarlet Tanager to the west, away from the nest. The Summer Tanager sang and called steadily during the next several minutes, during which time he was twice seen chasing other unidentified birds. Between 7:00–7:45 A.M., the female Scarlet Tanager made several visits to the nest, providing views sufficient to make positive identification. We noted the following characteristics: bill grayish/tan and relatively small (compared to Summer Tanager); body feathers olive green above and olive dull yellow below; wings dark brownish-green and contrasting with body. During this period, the Summer Tanager remained near the nest, occasionally giving a "pi-tuk" call. At one point, both birds perched close to us, briefly exhibited solicitation behavior, but did not copulate. However, at 8:05 A.M., Drew Smith and Karol Gresser observed the pair copulating.

On 1 June at 8:45 A.M., the female was on the nest and very alert. She changed position about every minute or so, and occasionally probed her bill deep into the bowl as if possibly turning eggs. On 2 June, she was settled deep in the nest when, at 6:08 A.M., the Summer Tanager landed on the nest edge and presented an insect to the female who remained in incubation posture.

On 3 June, I visited the site in the morning and again in the late afternoon. There was no sign of the female at the nest, which appeared to be intact, but apparently was abandoned. The Summer Tanager was not heard to vocalize that

day until 5:15 A.M., at which time he sang at very low volume from a high perch at the edge of the lake, about 50 m from the nest.

The nest was located on a horizontal branch in a large white oak (*Quercus alba*), about 12 m from the ground and about 25 m from the trail. It was relatively flat and loosely constructed and was placed within a small clump of leaves mid-way out from the trunk. The site appeared quite open with no leaf canopy immediately above to provide protective concealment from predators. Viewed from the side through a scope, light could easily be seen through the flimsy nest as is typical of Scarlet Tanager (Robinson 1996).

Nest 2

A second nest was found on 12 June, although the paternity of the nest was not certain. I found this nest by following the Summer Tanager as he sang in the canopy and on one occasion chased a tanager-sized bird from his territory. A minute later he reappeared high overhead in the canopy. After a few seconds he flew down and landed about 10 m above the ground at the edge of the trail. I then noticed a female Scarlet Tanager with him and she descended to a dense tangle of wild grape (*Vitis sp.*) in a northern red oak (*Quercus rubra*). I could see her on a nest that was very well concealed by oak and grape leaves. I checked on her occasionally on 13, 14, and 15 June during which time she appeared to be incubating. However, on 17 June, she was not seen at the nest nor subsequently. The nest was checked on 18 June with a telescoping pole rigged with a mirror and it contained no eggs or fragments. The nest otherwise appeared intact. It was 9 m from the ground and, like the first nest, was loosely constructed and rather transparent from below. Nest 2 was approximately 50 m from Nest 1. To complicate interpretation of paternity at this nest, a male Scarlet Tanager was seen and heard calling about 20 m away. The Summer Tanager was seen and heard in the general area during the monitoring of Nest 2; however, I did not see him again interact with the female at this site following nest failure.

Feeding Fledgling Cowbird

On 27 June, I saw a female Scarlet Tanager foraging near the Summer Tanager who was singing quietly about 30 m west of Nest 2. At 7:00 A.M., she had what appeared to be Odonate (dragonfly or damselfly) wings protruding from her bill, which she carried to a dense cluster of leaves in an oak tree directly over the trail. I could see fluttering activity but no birds. Suspecting that she was feeding young, I returned the next day (28 June) and immediately spotted a female perched near the singing male Summer Tanager. Again she had a large Odonate in her bill and was beating it vigorously against the branch. She flew northwest out of sight followed by the male. She repeated this three more times during the next 20 minutes until I finally saw her deliver food to what appeared to be a fledgling cowbird, which I estimated to be about 14–16 days old based on partially developed tail and obvious cream-colored gape (Baicich and Harrison 1997). The fledgling was perched amid dense oak leaves about 8 m above the ground. It was about the same size as the female Scarlet Tanager and had a rather conical bill shape, uniform gray-brown body feathers edged with buff, and dull but distinct breast streaks. At one point, the Summer Tanager arrived and presented a food item to the young bird. Unfortunately, at this point I was interrupted by some hikers on the trail, and subsequently was never able to relocate the feeding group. It is impossible to know the parental origin of this young cowbird. Only ten days had lapsed since the failure of Nest 2, insufficient time for that female to renest and produce a two-week old cowbird. One possible scenario is that the cowbird was hatched and raised by the same male Summer Tanager but with a different female Scarlet Tanager. This scenario is unlikely because Summer Tanager is considered to be serially monogamous, i.e. mating with one female each breeding season (Robinson 1996). Of course, this

accepted mating system may not apply to mixed-species pairings. Young cowbirds use exaggerated food begging signals (Dearborn 1998); thus, another possible scenario is that the cowbird belonged to neither of these tanagers, but was simple being fed by them as has been noted for other species (Klein and Rosenberg 1986, Scott 1987).

Territory Size

I last saw and heard the Summer Tanager on 27 July despite several subsequent visits to the area during the next week or so. I conservatively estimated the size of his "territory", which I define here to include both foraging and defended areas, by plotting all of the locations in which I had detected him during the 68 day period. It was approximately 6 ha in size (250 m long by 250 m wide). Two sides of his territory bordered grassy clearings, one side a lake, and one side continuous forest.

Breeding Range and Territoriality

Summer Tanager breeds in deciduous and pine-oak forests across the southern United States from California to Florida and in the eastern U.S. to 40° N (Robinson 1996), which approximately is delineated by a line drawn from east-central Nebraska eastward to southern New Jersey. The breeding range of Scarlet Tanager closely corresponds to the boundaries of the Eastern Deciduous Forest Biome (Mowbray 1999). It breeds north to southern Canada (49° N) delineated by a line drawn approximately from southeastern Manitoba eastward to Nova Scotia. Breeding ranges of the two species are sympatric in the east-central portion of United States. The Lebanon Hills Summer Tanager clearly responded aggressively toward Scarlet Tanager within its territory. Mowbray (1999) states that Scarlet Tanager establishes non-overlapping territories with Summer Tanager in areas of sympatry. However, separate experiments conducted at the same site by two different researchers using playback resulted in contrary findings, i.e., Shy (1984) found the two congeners to respond aggressively to each other's song, whereas Robinson (1996) found no such aggressive response.

Interspecific Pairing

There is a paucity of published accounts of hybridization and interspecific pairings involving *Piranga* tanagers in North America (summarized in Fall op. cit.). Apparently, evidence of hybridization involving Summer, Scarlet, and Western tanagers is provided by specimens only. I could find no published accounts of field observations of intraspecific pairing involving these species. However, beginning in 1996, both pure and purported hybrid Flame-colored Tanagers (*P. bidentata*), a Mexican species, have been recorded nearly annually in southeast Arizona paired with Western Tanager (see Fall op. cit.). Additionally, in 1997, a female Flame-colored Tanager was observed copulating with a male Hepatic Tanager (*P. flava*) in Arizona (*Field Notes* Vol. 51, No. 4).

Observed copulation provides the clearest evidence that genetic material potentially is being shared by interspecific pairings. Robinson (1996) states that copulation by Summer Tanager is rarely observed even within its primary range. Copulation twice was observed between the male Summer Tanager and female Scarlet Tanager at Nest 1, thus indicating the potential for production of hybrid young. The presence of a second Summer / Scarlet Tanager mixed-species pair in Scott County in 2003 may not be coincidental and warrants close scrutiny in the future to determine the significance of these extra-limital breeding attempts by Summer Tanager in Minnesota, should they occur.

Acknowledgments

I wish to thank Bruce Fall who reviewed the manuscript and provided useful comments which improved this paper.

Literature Cited

Baicich, P. J, and C. J. O. Harrison. 1997. A Guide to the Nests, Eggs, and Nestlings of North American Birds. Aca-

demic Press. 347 pp.
Dearborn, D. C. 1998. Begging behavior and food acquisition by Brown-headed Cowbird nestlings. *Behavioral Ecology and Sociobiology* 43:259–270.
Friedmann, H. 1929. The Cowbirds: A Study in the Biology of Social Parasitism: C. Thomas, Publ., Springfield, IL.
Klein, N. K. and K. V. Rosenberg. 1986. Feeding of Brown-headed Cowbird (*Molothrus ater*) fledglings by more than one "host" species. *Auk* 103:213–214.
Mowbray, T. B. 1999. Scarlet Tanager. *In* The Birds of North America, No. 479 (A. Poole and F. Gill, Eds.). The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists' Union, Washington, D.C.
Robinson, W. D. 1996. Summer Tanager (*Piranga rubra*). *In* The Birds of North America, No. 248 (A. Poole and F. Gill, Eds.). The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists' Union, Washington, D.C.
Scott. D. M. 1987. House Sparrow and Chipping Sparrow feed the same fledgling Brown-headed Cowbird. *The Wilson Bulletin* 100:323–324.
Shy, E. 1984. Sympatry and allopathy of song in North American tanagers. *Behavioral Ecology and Sociobiology* 15:189–195.

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BIRDING BY HINDSIGHT

A Second Look at Swans

Kim R. Eckert

So, what seems to be the problem? What could be easier to identify than that big white bird swimming around in front of you, perhaps begging for bread scraps — in flagrant violation of the Atkins Diet? This is no cryptically colored or furtive bird hidden in the underbrush with hard-to-see, subtle, or highly variable plumage features. It's just a swan!

Perhaps the problem is you're still distracted after being roundly criticized last October for leaving your hummingbird feeder out and, in the process, for heartlessly helping hummers get hypothermia, (why don't these same critics object to the handouts the Trumpeters are getting in Monticello and Fergus Falls?) Or maybe your concentration is clouded by listening to those defending the ill-advised introduction of Trumpeters into Eastern states (where there is no good evidence they ever occurred in the first place).

OK, if there's an ID problem, just get out the field guides and other references. Besides the Sibley and Geographic guides, I could recommend the book *Waterfowl:*

An Identification Guide to the Ducks, Geese and Swans of the World by Madge and Burn. In addition, there have been three widely read articles: "Distinguishing Tundra and Trumpeter Swans" (*Birding* 20:223–226), "Immature Swans" (*Birding* 23:88–91), and "Identifying Trumpeter and Tundra Swans" (*Birding* 26:306–318). This last article, by the way, is the most valuable of the six references.

Now, having read all these, it's easy to see why it's hard. For example: Geographic says the Tundra's feathering "cuts straight across forehead" where it meets the bill (other references say it's U-shaped). Sibley suggests the shape of the feathering at the bill's gape is diagnostic (only one other reference mentions this). Madge and Burn in *Waterfowl* claim the reddish line at the cutting edges of the bill is a useful distinction (no one else does). And one of those *Birding* articles stands suspiciously alone in suggesting you consider a swan's neck shape at take-off, the angle of its body with the ground when standing, where its neck meets the body when swimming, and that a Trumpeter "bobs" its head while a Tundra only "nods."

At this point, it's time for "Hindsight" to step in, take a second look at swans, and clear up the confusion — or perhaps add to it. Before examining individual field marks which allegedly distinguish the swans, one place to start is to consider the season. No matter what month it is (or what county you're in, for that matter), a Trumpeter Swan is a possibility in Minnesota, since it now locally but regularly breeds and winters, (and also migrates), in the state.

But there are times when the Tundra Swan is unlikely. After mid-May, all Tundras have normally departed for the Arctic, and none are likely to return here until mid-October. So, any Minnesota swan from June through September is probably a Trumpeter, but not certainly so: there are several records of migrating Tundras lingering into June and of non-breeding Tundras summering here. And, while all Tundras have normally left the state before the end of December, practically any species of waterfowl can and does overwinter at times.

Another initial consideration, and one more important than the season, is to make sure you note the swan's age, since some field marks are valid on adults but not immatures, or vice versa. A swan with all-white plumage is an adult (generally at least one-and-a-half years old), and one with some dusky grayish or brownish feathering is an immature (less than one-and-a-half years).

The field marks listed below are the ones birders have most often used — with varying credibility — to tell a Tundra Swan from a Trumpeter. Almost none of these marks on its own is diagnostic, virtually all involve caveats and qualifications, many may be useful (but, again, not diagnostic), some work on adults but not immatures, while others are misleading or even useless. Correct identification of a swan is generally possible only when the birder uses a combination of several field marks.

The comments below are intentionally brief and not to be considered thorough analyses: be sure to consult the references cited above for more complete information. These field marks are listed more or less by their validity; those near the beginning of the list are generally those with the most merit, while those further down tend to be less credible:

Vocalizations. Adults can be told apart by their calls, but only if the birder is familiar with them and is aware that individuals can vary their pitch and quality. Either listen to them in the field or on recordings — it is not enough to simply read the written descriptions. It is important as well to know that immature swans can sound different than adults of the same species. Thus, if a flock of swans includes both adults and immatures and you can hear two different calls, don't assume both species are present. One problem is, of course, that swans are mute much of the time — no pun intended!

Overall size. It's well known that Trumpeter Swans are larger than Tundras overall, but it's hardly that simple. Even

if you have direct comparison with some swans in a flock looking larger than others, the problem is that male swans average larger than females in both length and weight. Additionally, adults might look bigger than some immatures. Therefore, use size only with caution and within context.

Yellow loral spot. Most birders are aware that some — but not all — adult Tundra Swans have a yellow spot on the lores, which Trumpeters never show. So, an adult swan with yellow lores is a Tundra; one with no yellow can be either species. Few birders, however, are aware of this caveat: a few adult Trumpeters might show a pale "wear patch" on or near the lores, though reportedly this spot is never yellow.

Feathering at the gape. One of the least-known but best distinctions between adult Tundras and Trumpeters was first publicized by Sibley, but it was apparently first mentioned in the third *Birding* article cited earlier. Look at the shape of the feathering where it meets the bill between the gape and the eye. If this edge is relatively straight or shallowly curved, it should be a Trumpeter; if this edge looks more angled or abruptly curved, it is likely a Tundra. This feature probably needs more field study to test its reliability, and it does not apply to immatures.

Forehead feathering. The shape of the feathering on the forehead where it meets the top of the bill is another good mark on adult swans — be sure to note, however, this feature does not apply to immatures. Note as well that this mark is usually difficult to see (you have to wait until the swan is facing you and looks down), and most ID references are misleading and overly simplify this feature. If this edge is U-shaped, this indicates a Tundra; if it is more of a shallow V-shape, it is a Trumpeter. But this difference is usually subtle, with the tip of the Trumpeter's "V" often looking somewhat rounded rather than sharply pointed.

As I write this, there are some photos from another state posted on a birding listserve of what look like a perfectly normal adult Trumpeter Swan (www2.msstate.edu/~sd122/Mississippi%20swan). Assistance with its ID was being sought because it was being called a Tundra Swan by some, with one photo clearly showing its "V" looking more like a Tundra's "U."

Extent of black in front of eye. On an adult Trumpter Swan, there is typically more black between the eye and the bill, making the eye appear less obvious and more a part of the bill. This appearance results from the top edge of this black area forming a line which is tangent to the top of the eye; in some cases, the lower black edge is also tangent to the bottom of the eye. A narrower area of black, with the eye appearing more evident and distinct, is typical of Tundra Swan. There are times when this difference is harder to judge, especially on immatures, but it is usually apparent and useful on adults.

Bill length. If the length of the swan's bill, from its gape to the tip, appears to be twice the distance from its eye to the back of its head, it's probably a Trumpeter; this gape-to-tip distance is typically only 1.5 times longer on a Tundra Swan. There is overlap, though, in this feature, especially when immatures are involved.

Immature plumage. Here, for a change, is an ID feature which only applies to immatures. By mid-winter, the overall plumage of Tundra Swans is normally whiter than that of young Trumpeters. Indeed, any immature swan that generally appears almost as white overall as an adult in late winter or spring would be a Tundra. The overall plumage of immature Trumpeter Swans at this time is still dusky. There is no real plumage difference between immatures earlier in the winter or in fall, however, nor is there any magic date when this plumage difference becomes reliable.

Immature bill color. On the other hand, there is something useful to distinguish immature swans in fall, and perhaps into early winter. Immatures of both species show a mix of pink and black on the bill, with the bills generally becoming all-black by spring. However, young Tundra Swans in fall tend to have more pink on

the bill, with this color often meeting the feathering at the base of the bill. A young Trumpeter Swan always shows black at the base of its bill. Accordingly, an immature swan with black on its bill's base could be either species, but one where the pink reaches the feathering at its base would be a Tundra.

(Note: From here on down, the reliability of field marks to safely distinguish between the two swans rapidly deteriorates.)

Nostril placement. It is stated in some credible references that the position of the nostril on the bill is a useful field mark: i.e., on a Trumpeter it is about half-way between the eye and the bill tip, while on a Tundra it is closer to the tip. I have to seriously doubt this, though. In every photo I have seen, no consistent difference is apparent, with the nostril on both species closer to the tip than the eye.

Culmen shape. An oft-mentioned difference between Tundra and Trumpeter swans of any age is the shape of the culmen (i.e., the top edge of the upper mandible). Supposedly, it is concave on a Tundra and relatively straight on a Trumpeter. While there is a tendency for this to be true on adults, this feature simply does not work on any immatures — or even on many adults. Photographs clearly show there are some adult Trumpeters with a somewhat concave shape to the culmen, and conversely some adult Tundras with a relatively straight culmen.

Crown shape. Some references suggest that a flatter or lower crown profile indicates a Trumpeter Swan, while a swan with a rounder or higher profile would be a Tundra. On the average this may be true, but it's hardly a reliable difference.

Reddish tomium. For decades, some birders have been under the impression that a swan showing pink or reddish on its tomium (i.e., the cutting edges of the bill) would be a Trumpeter. Though this may be more obvious on some Trumpeters, many Tundras share this feature, and many Trumpeters do not.

Back profile. It is sometimes alleged that the highest point of a Tundra Swan's back is near the center, while on a Trumpeter it is closer to the rear. On the average, maybe this is true. In reality, it's unreliable.

Foot size & color. It has been reliably reported that there is no overlap in the foot measurements of swans, with the Trumpeter's always longer. Perhaps this might be useful information if you carefully measured the tracks of a swan walking through the mud. And foot color would not be useful in most cases, since adult swans of both species have black legs and feet, and the feet/legs on immature swans are variable in color and not consistently different.

Body major axis. This is something I read about on Joe Morlan's website (http://fog.ccsf.org/~jmorlan/trswid.htm). Given Joe's experience and ability, this feature is probably accurate and useful, but its explanation left me somewhat confused. You'll also find on the same website an equally long and complex analysis of the difference in the head/bill profiles and proportions of the two swans.

Body posture. It is sometimes suggested that a Trumpeter typically stands on land with its body angled up a bit, while a Tundra stands with its body parallel to the ground. However, most references fail to mention this, and I would be surprised if this were a valid distinction.

Neck/chest position. Is it true, as claimed by some references, that a Trumpeter Swan swims with the base of its neck set back from its chest, while a Tundra's neck goes straight up from its chest? No, this is hardly a consistent difference: both swans can assume either neck position.

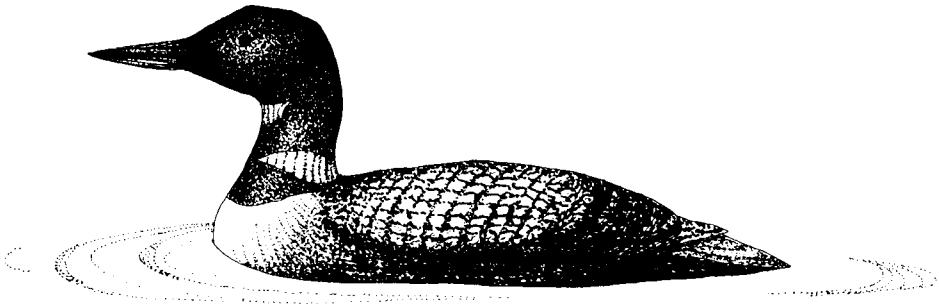
Neck shape. Or is it true, as claimed by one reference, that a Trumpeter briefly holds its neck into a "shallow S-curve" upon take-off, while a Tundra never does? If so, why has no one else ever written about this?

Head bobbing. Or, what about this same reference's claim that Trumpeters sometimes "bob" their heads, while Tundra Swans do not — that Tundras can only "nod" their heads? Don't ask.

Still confused? Good. Then we're finally getting somewhere if birders come to realize that swan identification is an underappreciated problem, that we should be skeptical of — or even ignore — some of the field marks promoted in the references, and that an accurate ID of any swan should rely on more than just one characteristic.

So, now that we have this Tundra vs. Trumpeter ID problem under control, perhaps we can devote our energy to what really matters these days. It's high time to jump on the Atkins low-carb bandwagon, and feed fewer bread scraps to swans and less sugar water to hummingbirds.

1921 W. Kent Rd., Duluth, MN 55812.



NOTES OF INTEREST

FIRST CATTLE EGRET IN MAHNOMEN COUNTY — On 22 and 24 April 2003, Lisa Zluticky observed a Cattle Egret (*Bubulcus ibis*) within the city limits of Waubun, Mahnomen County. While on a morning walk at 6:30 A.M. on 22 April, Lisa noticed a long-legged, white bird that was no taller than a Canada Goose (*Branta canadensis*), approximately 0.75 m tall. A patch of slight rust color on the back of its head, slightly rusty breast feathers, and the odd shape of its yellowish bill and mouth area were immediately obvious. The legs were a light brown-tan color and it was a rather plump bird.

It was clearly an egret from this initial contact, and Lisa immediately went home and confirmed the bird's identity with the *National Geographic Field Guide to the Birds of North America*, 3rd edition. At 4:45 P.M. the same day, the bird was observed walking in Lisa's neighbor's yard, eating flying insects. Photographs were taken. The bird tolerated a nearby barking dog and human approach to less than 15 feet. No vocalizations were heard. The bird was seen again on 24 April at 7:50 A.M. perched on a parked vehicle. White Earth Reservation Tribal biologist Doug McArthur confirmed the identity in the field on 22 April and John P. Loegering concurred, based on descriptions and photographs.

All three observations were made without optics and totaled approximately 25 minutes. The weather was clear to partly sunny with light winds. To our knowledge, this is the first observation of a Cattle Egret in Mahnomen County (Janssen, R. B., and A. X. Hertzel. 1996. *Occurrences of Minnesota Birds*. Minnesota Ornithologists' Union Occasional Papers No. 1). **Lisa Zluticky, P.O. Box 14, Waubun, MN 56589, and John P. Loegering, University of Minnesota, Crookston, MN 56716.**

Common Moorhens, 2 June 2003, Hamden Slough, Becker County. Photo by Roland Jordahl.

COMMON MOORHENS AT HAMDEN SLOUGH, BECKER COUNTY — On 31 May 2003, I headed to Hamden Slough N.W.R. in Becker County to complete a shorebird survey. At my third shorebird observation site, I was surprised to see a very clearly marked Common Moorhen, a bird I knew well from other parts of the country but had never encountered so far west. It was swimming with the same pumping motion as the two or three American Coots in the same pond, but its orange head shield and orange bill thinning to a yellow tip set it strikingly apart from its companions. Its body was slighter slimmer than the bodies of the coots, its slate plumage a bit lighter than theirs, especially on the sides, and it showed a scalloped white line — more like a series of lines — along its flanks. Finally, the white areas on the sides of the pointed, dark tail were more extensive than the corresponding areas in the tails of the coots. The bird swam about 80 feet from me in the open part of the pond for a minute or so and then swam in and out of the reeds at the far side of the pond about 50 feet farther away.

Roland Jordahl, a wildlife/nature photographer, visited this spot, 0.7 miles northeast of the first intersection east of the refuge headquarters, on 2 June and photographed a pair of Common Moorhens here. The two birds continued to be seen at least through 16 June. **Bob O'Connor, 1625 – 3rd Street St., Moorhead, MN 56560.**

HOODED WARBLER NEST IN ANOKA COUNTY — Hooded Warblers have been occupying a territory at Linwood Lake, Anoka County, in summer since 1999, and in 2003 I was finally able to find a nest in this area and confirm the first breeding of this species for the county. Prior to 1999, the only published sightings of Hooded Warblers in Anoka County were singing males at Cedar Creek Natural History Area on 16 June 1980 (***The Loon*** 53:144) and 10 June 1993 (***The Loon*** 66:29), plus my observation of a singing male at Boot Lake SNA on 21 June 1997 (***The Loon*** 70:36). In 1999, I found singing males at Carlos Avery WMA on 19 June and then at the Linwood Lake territory on 26 June (***The Loon*** 72:32). Since these two locations are only two miles apart, the possibility exists that they were the same bird. It is interesting that singing males were found within a few miles of the eventual territory and successful nesting at Linwood Lake in the years 1993, 1997, and 1999.

During 2000, two males occupied adjacent territories at Linwood Lake from 24 May – 18 June, and a female was seen on the primary territory on 9 June (***The Loon*** 72:225, 73:30). Although one male had returned to this primary territory by 29 May 2001, I was out of state for the summer and don't know the status of these birds during 2001. During 2002, I saw a female at the primary territory on 23 May and 13 August, and heard the male sing on 29 July, but again, my absence during most of June and July prevented further investigation. Interestingly, during visits to Linwood Lake during May and June 2003, I assumed the Hooded Warblers had finally left the area since I did not see or hear any evidence of their presence at the primary territory. Nevertheless, while driving through this area on 22 July 2003, I heard the distinctive chip of a Hooded Warbler, and was subsequently surprised to find female calling loudly and later a male singing, only a few hundred yards from where I had seen them in the past. On the evening of the same day, I found the nest with one large chick, probably a Brown-headed Cowbird chick. The nest was empty by 26 July, but the female was still present and calling on that date, and the male was still present and calling on 6 August, suggesting that the chick fledged successfully. The nest was located only a few inches above the ground in a blackberry tangle at the edge of the forest (along a road). The habitat here is mature oak forest mixed with maple, basswood and white pine.

Although Hooded Warblers were first found breeding at Murphy-Hanrehan Park Reserve, Dakota and Scott counties in 1984 and have been seen there nearly every summer since, numbers had remained relatively stable (1–5 territories) until a dramatic increase occurred during the last four years (14–35 territories per year). Since 1984, Hooded Warblers have also been recorded in summer in Pine (2002), Carver (1999, 2002), Washington (1995), Rice (1994), and Fillmore (1989) counties, and they nested at Camp Ripley, Morrison County in 1996 (***The Loon*** 68:245–246), the only other location they have been found breeding in the state. Hopefully this Anoka County nesting is a sign of continued range expansion for this species, and with the large numbers currently nesting at Murphy-Hanrehan, additional individuals will continue to explore new areas of the state. Hooded Warbler is certainly a welcome addition to the exceptional breeding warbler diversity of Anoka County (currently 16 species). Sadly, Hooded Warbler may have replaced Cerulean Warbler as a breeding species in Anoka County, since Linwood Lake was home to several Cerulean territories until 1998, but this species has not been reported from Anoka County in summer since that time. Interestingly, the first Minnesota nest of Cerulean Warbler was found at Linwood Lake, Anoka County in June 1934 (***The Loon*** 6:63–65). **Karl Bardon, 13073 Hastings St. NE, Blaine, MN 55449.**

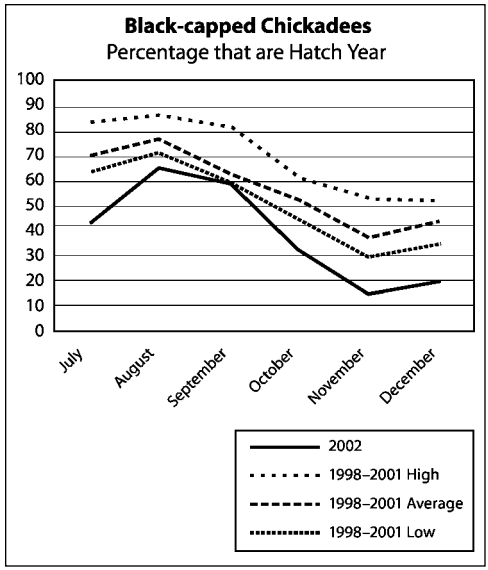
RUFF IN ANOKA COUNTY — On the evening of 17 May 2003, Greg Pietila called me to say he was watching a Ruff in the horse pasture at Bunker Hills Regional Park, Anoka County. I arrived a few minutes later and observed the bird with him for over an hour. The typical Ruff shape was obvious with just binoculars: large bodied, pot-bellied, small-headed, and relatively thicker-necked and shorter-legged than a yellowlegs. We decided the bird must be a first-spring male since it was an inch or two larger than both a Lesser Yellowlegs and a Killdeer (a Reeve would appear the same size as these other two species), and since it postured towards the Lesser Yellowlegs with its neck "ruffed" out and its bill pointed at a 45° angle downward. There was an apparently bare patch of skin on the side of the neck where the ruff would appear on an adult male, but otherwise the bird appeared more like a female in plumage.

The underparts were whitish with fairly prominent dark marks on the center of the breast, extending down onto the flanks in a general U-shape. The lower belly, rear flanks, and undertail were clean white, while the head and neck were mottled very

light gray-brown. The scapulars and adjacent feathers had prominent U- or V-shaped gold marks near the base, broad, dark subterminal bands, and narrow, pale whitish fringes. On the mantle and greater coverts, these markings were reduced to just dark crescent shapes with no gold base and no pale edging. The long tertials overlapping the folded primaries were banded with gold, dark and pale whitish. In flight, and occasionally when preening or posturing, the conspicuous white ovals on either side of the tail were seen. A narrow dark center separated these two ovals, and the dark tip of the tail was barely visible beyond these white ovals. The base of the tail was dark. In flight, the underwing coverts were clean white with only slightly darker flight feathers. The bright "carrot" orange legs were slightly brighter than the adjacent Lesser Yellowlegs. The bill was nearly as long as the head, thicker at the base, tapered towards the tip, and slightly decurved. This bird fed by walking slowly about in the water, picking in the manner of a yellowlegs. I took several recognizable photographs. The Ruff was not present the following day. Of the 38 total Ruff records for the state, there is only one previous Anoka County record (31 July 1991 at Carlos Avery WMA, ***The Loon*** 63:280), but there is a total of 23 spring records, occurring from 19 April – 4 June, with an average date of 11 May. **Karl Bardon, 13073 Hastings St. NE, Blaine, MN 55449.**

DECREASED PERCENTAGE OF YOUNG CHICKADEES IN 2002 AT SPRINGBROOK NATURE CENTER — 

In the autumn of 2002, during routine bird banding operations at Springbrook Nature Center in Fridley, Anoka County, we noticed unusually low numbers of Hatch Year (HY) Black-capped Chickadees. We subsequently reviewed our chickadee age data for the period 1998–2002, during which capture efforts and methods were very similar from year to year. That analysis shows that the HY percentage of captured and aged Black-capped Chickadees was lower throughout the last six months of 2002 than it was during the corresponding months of 1998–2001.



Black-capped Chickadees were aged as either HY or after hatch year (AHY) based on accepted aging techniques. Skull ossification was the primary method used; the shape and amount of white on the outer tail feathers (6th retrices) were used to age some birds having ossified skulls in late autumn.

We have no data that provide any insight into the cause of this decline in recruitment to the local chickadee population. However, the widespread incidence of West Nile Virus in Minnesota in 2002 certainly is a possibility that might be considered. Nor can we do more than speculate on the possible long-term impact this decline might have on the local Black-capped Chickadee population; however, a December 2002 HY percentage that is less than half of the prior four-year average is cause for concern.

Routine bird banding will continue at Springbrook Nature Center, and we intend to review Black-capped Chickadee demography and populations more closely in 2003. **Ron Refsnider, P.O. Box 32722, Fridley, MN 55432.**

BAND-TAILED PIGEON IN DAKOTA COUNTY — Another Band-tailed Pigeon (*Columba fasciata*) sighting was added to the Minnesota ornithological records during the fall of 2002. This is the ninth record documented for our state.

The home range of the Band-tailed Pigeon is in mountainous areas from the northwest to the southwest United States. This species normally migrates south for the winter, but this wanderer stayed in Minnesota.

This bird was identified by Hank and Carol Tressel, when the bird showed up at their feeders and water sources on 20 November 2002. The Tressels live in Ravenna Township, Dakota County. Hank Tressel called my wife, Elizabeth, and me after the bird returned to their yard during the next few days. Elizabeth and I observed the bird on 24 November and received permission to post the find to the Rare Bird Alert. Following the posting, many observers have seen the bird and noted the distinguishing characteristics of the adult bird including the yellow bill with black tip, yellow legs, white band at nape, light gray terminal tail band, and size slightly larger than our common Rock Dove. At the time of this writing, 20 January 2003, the Band-tailed Pigeon is still coming to the Tressel yard for food and water and over 100 people have seen the bird there.

The first documented record of the Band-tailed Pigeon in Minnesota was in July 1969, just east of Morris in Stevens County. The second record was on 12 June 1971 in Sherburne County and the third was on 23 June 1975 in Stearns County. Another sighting occurred 8–19 September 1996 in Itasca County. There are three documented records from Hawk Ridge Nature Reserve in Duluth: 18 September 1982, 24 August 1997, and 4 October 1997 (an additional record from Hawk Ridge on 25 October 1999 was never documented). The eighth record was seen by many observers from 18–20 October 2001 in Golden Valley, Hennepin County. These records were taken from ***The Loon***, the journal of the Minnesota Ornithologists' Union.

South Dakota has six records of the Band-tailed Pigeon, all occurring from spring to mid-summer in the western half of the state. The species has not been documented in South Dakota since 1983 (*Birds of South Dakota* by Tallman, Swanson and Palmer). There is one record from Wisconsin and none from Iowa. There are two records each for Kansas, Illinois, and Missouri. Ontario has ten records. **Tom Bell, 5868 Pioneer Road South, St. Paul Park, MN 55071.**

Band-tailed Pigeon, 29 December 2002, Ravenna Township, Dakota County. Photo by Dave Cahlander.

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Compiled by Nancy Weber, Ann M. Hertzel, and Anthony X. Hertzel

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Corrections to *The Loon*

Volume 68

Page 196: Delete **Surf Scoter** 5/16 Dakota.

Volume 74

Page 200: Add **White-faced Ibis** 5/5 Kandiyohi †RSF.

Page 204: Change date to 4/19 for **Ferruginous Hawk** in Duluth. The correct date is shown in Table 1 on the same page.

Page 222: Insert **Lark Bunting** 5/23 Lac Qui Parle (near Dawson) †Beth Dillon following Black-throated Sparrow.

Page 223: Add single male **Lazuli Buntings** 5/26 Kandiyohi (Willmar, different location than 5/23+) †RSF, 5/30–31 **Crow Wing** (Nisswa) ph. JSB. The latter bird was found on the 30th by Marie and Charles Boudrye, and photographed on the 30th.

Page 225: Change date to 5/9–20 and change species name from **Great-tailed Grackle** to **Boat-tailed/Great-tailed Grackle** for the observation in Nicollet County.

Volume 75

Page 82: Add ***Plegadis*, sp?** 9/4 Lincoln (Tyler W.M.A.) †RJS, 9/5 Lyon (2 at Island L.) †RJS.

Page 83: Add specific location for **Surf Scoter** 10/26–29 **Dakota** (Gun Club L.) PEJ.

Page 28700: Change date from 8/15 to 9/15 for the **Greater Yellowlegs** count at Agassiz N.W.R., Marshall County.

Page 97: Delete **Wood Thrush** 10/13 Cass.

Page 98: Add **Orange-crowned Warbler** banded 11/3 Cass MRN.

Page 160: Change county to Murray for the **Red-throated Loon** 7 June 2003 (record #2003-32).

Page 160: Change date to 5 September 2002 for the two ***Plegadis* ibis**, sp. in Lyon County (record #2003-18).

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Photo by Jeff Morrison ..... Front Cover

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Purpose of the M.O.U.

The Minnesota Ornithologists' Union is an organization of both professionals and amateurs interested in birds. We foster the study of birds. We aim to create and increase public interest in birds, and to promote the preservation of birdlife and its natural habitat.

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Suggestions to Authors

The editors of ***The Loon*** welcome submissions of articles, Notes of Interest, color slides, and color or black & white photographs. Submissions should be typed, double-spaced and single-sided. Notes of Interest should be less than two pages. Photographs should be 5"x7". Whenever possible, please include a copy of your submission in any standard format on any size computer disk.

Club information and other announcements of general interest should be sent to the Newsletter editors. See inside front cover. Bird sighting reports for each season should be sent promptly at the end of February, May, July and November to Peder Svingen. See key to the "Seasonal Report."

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