The Loon

SPRING 1999

VOLUME 71 – NUMBER 1

The Loon, Minnesota's journal of birds, is published four times a year by the **Minnesota Ornithologists' Union**, the statewide bird club. Anyone interested may join. All members receive our two publications: ***The Loon*** and *Minnesota Birding.*

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ISSN 0024–645X

The Early History of the Minnesota Ornithologists' Union

George N. Rysgaard

As of this date, the Minnesota Ornithologists' Union and its predecessor organizations, the Upper Mississippi Bird Club and the Minnesota Bird Club celebrate seventy years of existence. There are so few members of the present organization who have a memory of its origin or of the original members who founded the organization, that it seemed appropriate to submit a history of the organization. It has become such a highly recognized regional bird club and has been lauded for its quality publication, ***The Loon***.

Inasmuch as I was not a charter member, I have had to rely upon the memory of those such as Dr. Charles Evans, Dr. Alden Risser, and the late Dr. Gustav A. Swanson for the information concerning the early events.

The first meeting of the group of young enthusiasts was held at the Walker Branch Library located at 29th Street and Hennepin Avenue on 15 March 1929 at 7:30 P.M. The original 13 members in attendance were Gustav A. Swanson, Alden Risser, Charles Evans, Samuel Grimes, Donald Fisher, Stanley Stein, Ole Fischer, Ralph Woolsey, Sterling Brackett, Ernest Stein, Marius Morse, Dr. E. D. Swedenborg and his wife, Minnie, who was the first, and for some years, the only woman member. Soon thereafter, Dr. Walter Breckenridge joined the newly organized group and is today, along with Dr. Risser and Dr. Evans, listed on the membership roll. To the best of my knowledge, they are the only survivors of the original nucleus.

The first order of business for the new group meeting at the library was the selection of a name for their organization, and it was agreed to name the infant club the Upper Mississippi Bird Club. Gustav Swanson was selected as the first president. It was also determined that the official publication would be named *The Flicker* and would be issued bi-monthly. Dues were established as one dollar per year. For reasons now unknown, the position of secretary-treasurer was not voted upon until the following meeting on 27 March 1929 despite the fact that he had been selected to collect the dues of the members at the first meeting. Perhaps, that was the prudent thinking of those days!

The first issue of *The Flicker* appeared without a date line, and for reasons unknown to me, displayed a mimeographed cover depicting a shrike. The second issue of *The Flicker* appeared in April, 1929 and presented a mimeographed cover now displaying a line drawing of a flicker accomplished by Walter J. Breckenridge. This cover design remained until 1936 when the format of the publication was changed and was commercially printed. It was at that time that Dr. Breckenridge produced another drawing of a flicker which was used as the cover illustration until the June, 1954 issue. Thereafter, the cover has utilized bird portraits of various species most appropriate for the issue, and the publication has remained much the same as to format and character. Under the editorship of Mr. Robert Janssen and the efforts of the contributors, the image of *The Flicker* has been polished to become one of the superior regional bird

The first issue of *The Flicker* published by the Minnesota Ornithologists' Union, May 1938.

periodicals. To the best of my knowledge, the first published photographs in *The Flicker* were those by Stanley Stein depicting a Great Horned Owl nest and young as well as the ladder which he designed and used to reach the nest for photography. The last issue of *The Flicker* to appear in mimeographed form was the October, 1936 issue. As editor at the time, I felt that the time had come when our periodical could and should appear in a commercial format. With the naivete of my age and the background of a tutorship on a high school paper, I stepped in "where angels fear to tread." Dr. Breckenridge prepared a new illustration for the cover, and I recruited help wherever I could find it. But we succeeded in our efforts. Dr. Arnold Erickson, now deceased, and I would take the manuscript to the Riverside Press where it was transformed into galleys of linotype. We then would load all that heavy lead type into his car and transport it to the St. Paul Vocational School, where the students, as part of their training, did the printing and assembling to produce the final magazine. In those early days the costs often exceeded our treasury balance, and on more than one occasion Dr. Roberts would slip me an extra $25 to pay our printing bills. Such was the financial status of the club in those days.

To step back in time a bit, by 1932 a number of new members had joined the club to include Dr. Arnold Erickson, Dana Struthers, Ken Carlander, myself, C. C. Prosser, Robert Upson, and others. And each became active in various aspects of the organization, although the original cadre still steered the course. In those days our meetings were small, and our trips afield were also small and most personal. But as a group we enjoyed trips to Linwood Lake in the spring, Sturgeon Lake in -30° weather with snow to our knees, Frontenac in May to see the warbler migration and to sleep in either the cemetery or on the hard sand beach of Frontenac Point. Memorable days!

It was in early 1938 that I had occasion to address the Duluth Bird Club and later visited for some while with Dr. Olga Lakela and Miss Mary Elwell who were most active in the Duluth Bird Club. They expressed interest in my plan to combine the Duluth, St. Cloud, and Minnesota bird clubs into a single entity. On my return from Duluth, I contacted Mr. George Friedrich of St. Cloud and other locally active birders such as Nestor Hiemenz and others, who in the previous year, had formed the Thomas S. Roberts Bird Club and had published a periodical, *The Journal of Minnesota Ornithology*. Each of the groups appeared to favor a consolidation and such occurred.

The organization now known as the Minnesota Ornithologists' Union evolved in 1938. The first issue of *The Flicker* under the auspices of the Minnesota Ornithologists' Union appeared in May, 1938 at the first annual meeting at St. Cloud, Minnesota. **913 E. 4th St., Northfield, MN 55057.**

Preliminary Research on Black-Throated Blue Warblers In Northeastern Minnesota

James W. Lind

Introduction

The Black-throated Blue Warbler (*Dendroica caerulescens*) is a Neotropical migrant that breeds primarily in the northeastern United States, southward through the Appalachian Mountains, and westward through the Great Lakes region. It reaches its highest relative abundance in the southern Appalachians and in New Hampshire (Graves 1997). The species is relatively rare in Minnesota and breeds regularly only along the North Shore of Lake Superior, which is the westernmost extension of its breeding range (Holmes 1994).

Black-throated Blue Warblers breed in large, relatively contiguous tracts of northern hardwood forests throughout its range (Holmes 1994). For the purposes of this paper, I will use the Minnesota DNR description of northern hardwood forests (Aaseng *et al.* 1993). These forests should not be confused with the maple-basswood forests found across central and southern Minnesota. Northern hardwood forests are late-successional communities characterized by sugar maple, basswood, yellow birch, and red oak. Conifers such as white pine, balsam fir, white spruce, and white cedar are also significant components. Northern hardwood forests are found primarily in areas with rich, loamy soil and low fire frequency. In Minnesota, northern hardwoods are restricted to a narrow band along Lake Superior and are also found at scattered locations across north-central portions of the state (Aaseng *et al.* 1993).

The forests in and around Tettegouche State Park are considered to be one of the most reliable locations in the state to find Black-throated Blue Warblers (S. Stucker, S. Wilson, pers. comm., Eckert 1994). However, the species' abundance, habitat requirements, and breeding ecology in Minnesota are virtually unknown. The objectives of this study were to: (1) determine the locations of singing male Black-throated Blue Warblers in Tettegouche and George H. Crosby-Manitou State Parks; (2) obtain a first approximation of Black-throated Blue Warbler habitat in the parks; and (3) estimate average territory sizes. As with most pilot studies, an underlying objective of this study was to determine future research needs.

Study Area and Methods

Field work was conducted at Tettegouche State Park and George H. Crosby-Manitou State Park in southern Lake County, Minnesota. A variety of hardwood, conifer, and mixed forest types exists in both parks. Elevations of survey areas range from approximately 275 m (900') to 490 m (1600'). The terrain in both parks is relatively rugged, with hiking, ski, and snowmobile trails traversing most areas.

An initial broad-based survey for singing males was conducted from 20 May to 15 June 1998 throughout both parks. Additional field work was conducted through the end of July. Almost all trails were surveyed, regardless of habitat type,

in order to identify areas with singing males. Areas away from trails were not surveyed due to time constraints. Surveys were conducted from approximately 4:30 A.M. to noon each day at a pace of about one km/hr. All trails were hiked at the same pace to reduce bias towards any habitat type. Surveys were not conducted in heavy rain or high winds. A general habitat description was noted for each bird detected and locations were plotted on topographic maps.

After surveying most trails in the parks, I focused on mapping territories in areas of Tettegouche with the greatest numbers of males. Territory mapping was conducted only at Tettegouche due to low numbers of singing males at Crosby-Manitou. Effort was concentrated on the ridgetops and slopes around Mt. Trudee and the four lakes in the northern portion of the park. Birds were followed from a distance of 10 to 30 m to minimize disturbance. After losing sight of a bird, I used small strips of flagging to mark individual locations for territory measurements. Locations of females, fledglings, and nests were also noted while territory mapping. During July, distances and bearings were measured between individual locations within territories. Polygons representing approximate territories were then plotted on grid paper and areas were calculated.

In the absence of gridded study plots, I wanted to get a rudimentary idea of densities along a few trails. I calculated "plot" areas for three frequently surveyed sections of trails by multiplying a 150-m-wide strip (75 m on each side) by the length of the trail section (obtained from topographic maps). The maximum distance from which a singing male could be heard was approximately 75 m. To be comparable to available density estimates from other regions, densities are based on the number of males 10 ha^{-1}. The three sections of trail are as follows (Fig. 1): (1) the trail around Tettegouche Lake, south from the service road (*a*) to the beginning of the east-west trail section

Black-throated Blue Warbler, 12 June 1998, Tettegouche State Park, Lake County. Photo by Jim Lind.

(*b*), south of the lake (~1400 m in length); (2) the trail running north of the service road (*c*) to Mt. Baldy, then southeast to Tettegouche Camp (*d*) (~1750 m in length); and (3) the Superior Hiking Trail from the Mt. Trudee overlook (*e*) south to the junction with the Red Dot Trail (*f*) (~1575 m in length).

Results

A total of 57 different singing males was detected, four at Crosby-Manitou and 53 at Tettegouche. Thirty-nine males were detected before 15 June, during the initial surveys, but we continued to detect "new" males along infrequently traveled trails through 16 July. Males continued to sing sporadically through 26 July and possibly longer. Often males did not sing during each visit to a known territory, but when males were heard, they were rarely far from a previously known

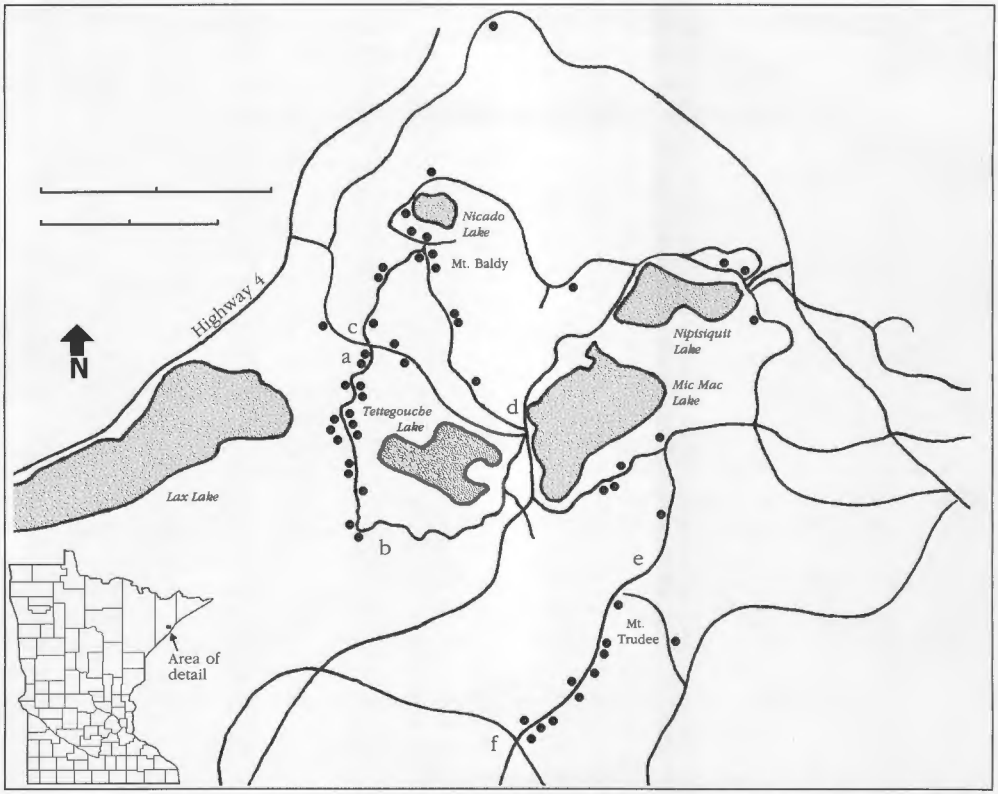

Figure 1. Locations of male Black-throated Blue Warblers (•) at Tettegouche State Park, summer of 1998.

location. Of the 53 males detected at Tettegouche, 39 were detected on two or more days. The remaining 14 males were found mainly in outlying areas infrequently visited. When a male was heard within a previously known territory, we assumed it was the same bird. Of course, without individually marked birds, it was impossible to be positive a bird seen on consecutive days was the same bird.

No quantitative habitat data was collected but a general impression of typical Black-throated Blue Warbler habitat can be given. Most birds were located on or near slopes in northern hardwood forests, with dense shrubs interspersed with varying degrees of open understory. Most birds were located in stands with a strong sugar maple and paper birch component, although some stands were dominated by oaks, especially on ridgetops. Balsam fir and white spruce were commonly found scattered throughout the canopy. Beaked hazel, mountain maple, and balsam fir were common understory plants. Large portions of the western section of Tettegouche and the southern section of Crosby-Manitou are comprised of even-aged hardwood stands with poorly developed understories. Very few Black-throated Blue Warblers were detected in these "park-like" areas. Elevations of singing males ranged from 320 m (1050') to 482 m (1580') and averaged 434 m (1425').

Two active nests were found, with strong evidence that both were second broods after successful first attempts. On

Territory #	Area (ha)	# of locations
1	0.73	14
2	0.49	16
3	0.27	7
4	0.48	19
5	0.51	14
6	0.77	10
7	0.35	12
8	0.61	19
9	0.49	9
10	0.25	12
11	0.32	14
12	0.23	6
13	0.21	7
14	0.59	14
15	0.54	12

Table 1. Area estimates for Black-throated Blue Warbler territories.

30 June, I found a female building a nearly complete nest ten minutes after seeing what was probably the same female 12 m away feeding a fledgling. This nest fledged three young on or about 26 July. On 29 June, at another territory approximately 3 km away, I found a nest containing one egg. The female was incubating on July 1. On 24 June, five days before I discovered the nest, a female was seen feeding a fledgling approximately 50 m away within the same territory. This nest with four eggs was depredated on or about 10 July. One nest was in a thimbleberry shrub and the other was in a bracken fern. An inactive nest from the current breeding season was found in a red oak sapling, and another inactive nest, probably from last year, was found in a small balsam fir. The average height of these four nests was 27 cm from the ground. Each nest was well concealed, but near small (25-50 m^2) areas of open understory within a dense understory.

Estimates of area are presented for 15 territories with six or more individual locations (Table 1). Territory areas ranged from 0.21 ha to 0.77 ha and averaged 0.46 ha (SD = 0.179 ha). Estimates of area are most likely low for territories with small numbers of individual locations (<10). Therefore, these data should be considered a rough estimate of average territory size at Tettegouche.

The highest concentrations of singing males were located along a north-south ridge between Tettegouche and Lax Lakes and another north-south ridge (Mt. Trudee) south of Mic Mac Lake. Density estimates for the three sections of trail described above (see Methods) are as follows: (1) 7.1 males 10 ha^{-1}, (2) 4.2 males 10 ha^{-1}, and (3) 4.2 males 10 ha^{-1}. Due to the lack of gridded study areas, these should be considered rough estimates.

Finally, it is important to note that 1998 was an "El Niño" year and the effects of the extremely mild winter and early spring on Black-throated Blue Warblers are unknown. Abundance, multiple brooding, territory size and other parameters may be affected by weather (Holmes *et al.* 1992, Rodenhouse and Holmes 1992, Holmes 1994, Graves 1997). Data collected this year may or may not be representative of a typical breeding season.

Discussion

Black-throated Blue Warblers appear to be much more abundant in Tettegouche State Park than previously thought. Prior to this study, the greatest number of Black-throated Blue Warblers reported at Tettegouche was 12 (J. Hines, MNDNR, pers. comm.). Large areas of potential habitat away from trails were not surveyed during this study, thus the number of territories within Tettegouche is probably greater than 53. Other areas along the North Shore, particularly northeast of Tettegouche, also have considerable numbers of singing Black-throated Blue Warblers (M. Steffes, pers. comm.). At the current time, it is unknown how these numbers compare to the preliminary estimates at Tettegouche. Regardless of absolute numbers, Black-throated Blue Warblers appear to be a significant component of the avifauna in northern hard-

wood forests along the North Shore.

Although I collected no quantitative habitat data, I believe that shrub density is the most important determinant of Black-throated Blue Warbler abundance in northern hardwood forests along the North Shore. Several studies in New Hampshire have demonstrated the influence of shrub density on abundance as well as reproductive performance. Holmes *et al.* (1996) compared high shrub density plots to low shrub density plots and found that high shrub density plots had: (1) greater densities of individuals; (2) fewer unmated males; (3) greater proportions of older (ASY) individuals; (4) greater numbers of young fledged per season; (5) greater proportions of successfully double brooding females; and (6) greater annual return rates for yearling males. Holway (1991) and Steele (1993) compared nest sites with random points and found that shrubs were significantly denser at nest sites. Steele also experimentally removed the shrub foliage on a previously utilized plot and found that nesting was virtually eliminated.

It is my impression that most "park-like" even-aged stands of northern hardwoods at Tettegouche, especially in the western section, are currently unsuitable for nesting Black-throated Blue Warblers. I speculate that as these forests mature and canopy gaps become more widespread, shrub densities should increase, thus creating suitable nesting habitat. It is unclear whether this would increase the abundance of Black-throated Blue Warblers at Tettegouche or simply change the distribution of territories within the park.

It is likely that both active nests located during the course of this study represented second broods. Double brooding, defined as the initiation of a second nest after a successful first nest, greatly increases the reproductive output of Black-throated Blue Warblers (Holmes *et al.* 1992). Graves (1997) hypothesized that the occurrence of double brooding in an area may be associated with its frost-free period. He also suggested that the location of "source" and "sink" populations might be determined by the occurrence of successful double brooding. For Black-throated Blue Warblers, the minimum length of time from nest initiation to independence of young is approximately 53 days (Graves 1997). Hence, double brooding may be impossible in areas with fewer than 100 frost-free days. The average frost-free period for Two Harbors, Minnesota, which is approximately 72 km southwest along the Lake Superior shore, is 139 days (Midwestern Climate Center 1997). It is therefore possible that Black-throated Blue Warblers along the North Shore frequently double brood and the population could be self-sustaining. However, this is speculative in the absence of productivity data.

The first three weeks of the breeding season were spent on the broad-based surveys rather than on territory mapping, so it is my feeling that some territory sizes may be slightly underestimated due to low numbers of observations. Territory sizes in New Hampshire range from approximately one to four ha. Territories are smallest in areas with a dense, heterogeneous shrub layer (Holmes 1994). All of the 15 territories mapped at Tettegouche contained thick shrub layers, so a territory size of approximately 0.5 ha might not be extremely inaccurate.

Density estimates for breeding Black-throated Blue Warblers are only available from the White Mountains of New Hampshire. Under the assumption that each male represents a pair (a potentially invalid assumption), the density estimates at Tettegouche appear to be comparable to densities in Hew Hampshire. Estimates from New Hampshire range from 2–3 pairs 10 ha^{-1} in areas with poorly developed shrub layers to 8–9 pairs 10 ha^{-1} in areas with thick shrub layers. At Tettegouche, rough estimates of densities of singing males ranged from approximately four to seven males 10 ha^{-1}.

Female Black-throated Blue Warbler on nest, 12 June 1998, Tetegouche State Park, Lake County. Photo by Jim Lind.

Several aspects of Black-throated Blue Warbler breeding biology at Tettegouche appear to be similar to that of breeding populations in New Hampshire. However, due to the relative scarcity of northern hardwoods in Minnesota, the regional abundance of Black-throated Blue Warblers is definitely lower. Fortunately, most northern hardwood stands are located in relatively unfragmented portions of northeastern Minnesota (Green 1995). The negative effects of forest fragmentation observed in other regions, such as increased nest predation and Brown-headed Cowbird (*Molothrus ater*) brood parasitism, might not be as influential along the North Shore. According to Breeding Bird Survey data, the American Crow, a potential nest predator, is relatively scarce in heavily wooded sections of northeast Minnesota and Brown-headed Cowbirds are virtually absent (Green 1995, Hanski *et al.* 1996). These advantages may be important in sustaining this peripheral, though potentially important, population of Black-throated Blue Warblers.

Acknowledgments

This project was funded by the Minnesota Department of Natural Resources Division of Parks and Division of Nongame Wildlife. I would like to thank Jeff Hines, Dave Olfelt, and Phil Leversedge for the opportunity to work on this project. Kaisa Ireland and Sarah Oppelt provided invaluable assistance, especially considering the mosquitoes and the early hours spent in the field.

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917 – 9th Avenue, Two Harbors, MN 55616.

The Black-throated Blue Warbler Along the Superior Hiking Trail in Northeastern Minnesota

Michael W. Steffes

The Black-throated Blue Warbler (*Dendroica caerulescens*), is a Neotropic migrant and summer visitor, usually breeding in mature, mixed deciduous forest primarily of sugar maple with a well-developed understory (Holmes 1994, Holmes *et al.* 1996) — a habitat which currently constitutes a small proportion of the forests of northeast Minnesota (Eckert 1994).

The Superior Hiking Trail was initially constructed in the mid-1980s with sections continuously added until the present time. Its predominant location along the spine of the remnants of the Sawtooth Mountains just inland from Lake Superior yields views of the lake and the inland hills and valleys. It also traverses relatively mature, mixed deciduous forests predominantly of sugar maple. In walking the Superior Hiking Trail in the early 1990s I began to note the relatively frequent presence of singing Black-throated Blue Warblers. Following my initial observations I began to count them in a more systematic manner.

Sampling the habitat approximated a line transect (Bibby *et al.* 1992) but with the pattern of the transect dictated by the hiking trail — a method of sampling not too dissimilar from that used by Graves (1997) in his extensive assessment of the same species from the eastern United States and Canada to the Midwest (Michigan). During my survey, rarely were transects straight lines, and the habitats sampled within each section of the trail were varied. Nevertheless the variability permitted sampling of vegetation from those surrounding lakes, rivers and wetlands to newly logged and regenerating areas to maturing and relatively mature

Table 1. Singing male Black-throated Blue Warblers along different sections of the Superior Hiking Trail (all with woods — predominantly of maple trees — where the birds were found in greatest numbers); sampled between 15 May and 15 July, 1995–1998. The length estimates the kilometers (km) of trail for each section traversing woods where the birds were or could be found.

Section counted	Number of counts	Woods with maples	Mean (range) of singing warblers	Singing warblers per km
State 1 – Lake 6	7	8 km	5.3 (3–8)	0.7
Britton – Oberg	5	7 km	2.0 (0–4)	0.3
Oberg – Lutsen	4	8 km	6.8 (3–13)*	0.9
Lutsen – Caribou	3	7 km	3.3 (2–4)	0.5

*The Oberg-Lutsen section was surveyed once during a continuous rain storm with only one male Black-throated Blue Warbler heard.

mixed deciduous forests. Surveys occurred usually between 9:00 A.M. and noon while I walked the trail — with birds nearly always detected by their songs. When I first detected their song, I stopped and confirmed the song at least one more time. Frequently many repeats were heard. In approximately 20% of the instances I confirmed the aural identification by seeing the male Black-throated Blue Warbler. Although I attempted to count the birds from May 15 until the end of August, the data presented encompass the intervals from 15 May – 15 July, 1995-1998, when the male Black-throated Blue Warblers were most likely singing on territories (Holmes 1994). Overall I counted birds from Castle Danger (ten miles east of Two Harbors) in Lake County to Judge Magney State Park in Cook County. The distance of the Superior Hiking Trail sampled between these points is 150 miles (Slade 1998). Between 15 May and 15 July several sections were walked many times (Table 1).

Black-throated Blue Warblers were usually found in woods with some maples present; however, a nearly pure maple forest — especially with a more dense understory (Holmes *et al.* 1996) — produced most locations of the birds. Nevertheless they could be found in mixed deciduous woods of maple (with white birch, yellow birch and aspen) and mixed deciduous and conifer woods (maple, aspen, spruce and balsam — e.g., the top of Moose Mountain in the Lutsen Ski Area). Black-throated Blue Warblers were present in mixed deciduous woods inland from Castle Danger at one end of the area sampled to similar habitat along the Devils Track River ten miles west of Judge Magney State Park. The most frequently sampled locations of mature mixed forests with sugar maples predominating were the sections from Minnesota Highway 1 to Lake County Road 6 in Lake County and three contiguous sections from Britton Peak to Oberg Mountain to Lutsen Ski Area to Caribou Trail (Cook County Road 4) in Cook County. The numbers of Black-throated Blue Warblers are expressed per section and per length of trail walked in the section that traversed woods where the species was frequently found. Although extent of habitat is difficult to assess in an area where the mature mixed forest is fragmented, each of these sections traverses about seven or eight kms of mostly maple and mixed deciduous/conifer with maple, (i.e., habitat likely to con-

tain Black-throated Blue Warblers). In other sections with more fragmented maple and mixed-maple forest, I also occasionally heard singing Black-throated Blue Warblers. Of the well-studied sections the mean number of singing male Black-throated Blue Warblers per section varied from 2.0 to 5.3. Assuming seven or eight kms of contiguous woods, the mean number of male Black-throated Blue Warblers ranged from 0.3–0.7/km (Table 1).

It is somewhat difficult to compare the current survey with those summarized in the literature; yet the extensive survey of Graves (1997) used a similar transect technique to collect specimens. There are not sufficient details in his manuscript to compare our methods in detail; clearly he more assiduously determined how many birds had territories along his transects. However, one can conclude that the number of singing male Black-throated Blue Warblers in northeast Minnesota lies at the lower limit for those areas he surveyed for male birds. For example the highest value of my surveys (0.7 birds/km) is less than 1.04 birds/km in Michigan (Graves 1997). Nevertheless determining the maximal number of subjects may be the best estimate of the actual number of birds along a transect (Bibby *et al.* 1992). From the data on all four sections most frequently sampled, I estimate a "maximum" of 1.4 birds/km, a value twice as high as the highest mean value for any section. This value is consistent with the frequencies in Michigan and Ontario but lower than some areas along the Appalachian Mountains where the values sometimes exceeded five birds/km (Graves 1997).

Although the Black-throated Blue Warbler is relatively rare in northeast Minnesota, it can be found regularly from mid-May to late July in mature, mixed deciduous woods usually with a primary population of maples and a dense understory. The relatively sparse distribution of this bird requires an effort to visit enough habitat, i.e., by walking 2 – 3 kms of trails or exploring in depth 10 – 20 hectares.

The best known locations for Black-throated Blue Warblers (Tettegouche State Park, Oberg Mountain, and Heartbreak Hill — see Eckert 1994) are representative of such habitat. Yet one cannot simply visit these areas and expect to hear a singing Black-throated Blue Warbler, as the males do not sing continuously (Holmes 1994). Finally with the territories spread over a large area, a long-term goal to sustain the northeast Minnesota population will require careful management of the forests for contiguous, mature stands predominantly of maple with a well developed understory.

Acknowledgments

I thank Jim Lind for many insightful suggestions and my brother, Robert, for accommodating my studies while hiking together.

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1583 Fulham St., St. Paul, MN 55108.

The Summer Season
(1 June to 31 July 1998)

Terry Wiens

No fewer than 272 species were observed this summer, a near record high; these included four Accidentals, one Casual, and a number of species normally not seen in either June or July. An excellent shorebird migration was documented, and waterfowl sightings were plentiful. Passerine reports were in general similar to recent years.

The mild spring (excepting the tornadoes, of course!) was followed by very "typical" summer weather. June was perhaps a bit cooler than average statewide, but July was about as close to the norm as it can possibly be. For both months, precipitation was within one to three inches of the average.

Seasonal Highlights

A remarkable total of **272 species** was observed for the season, one short of the previous record set in 1991, and well above the previous ten-year average of 265 species. Seasonal reports and/or breeding information were submitted by 126 individuals, a slight decline from last year's record high. Contributors sent in 1145 nest or brood cards, and breeding data were collected for 172 species (well above average in both cases). Top contributors of breeding information included Jean Segerstrom & Mark Newstrom (173 nest/brood cards), Jim Lind (127), Jon Little & Jacob Langeslag (101), Michael North (79), Roger Schroeder (71), and Russell Hofstead (63). Special recognition goes to the members of the Hiawatha Valley Audubon for once again providing extensive breeding documentation from Winona County. A very hearty thanks to all contributors for your outstanding time and effort!

Among the many records of note in 1998, four Accidental species stand out. A single **Black-bellied Whistling-Duck**, initially discovered in mid-May, remained at a wetland in Steele County well into June. In part because of this well-documented record of an unbanded bird, the status of this species has been changed from A_o (Accidental, origin uncertain) to A (Accidental) on the Minnesota checklist. There is evidence nationwide that this species will likely be found again in the future (***The Loon*** 67:247–248). Also discovered in May, and staying well into June, was a **Bewick's Wren** in Sherburne County, representing the first record of this species in the state since it appeared in the same county (!) in 1990. Bewick's Wren was once considered a Casual species in Minnesota, but in 1992 the status was changed to Accidental, and the lack of records in recent years certainly suggests the change was appropriate. New to the summer checklist was the **Painted Bunting** discovered at a feeder in Scott County; all of the previous five records in the state had occurred in May. Another Accidental species appearing this summer was an **Eurasian Tree Sparrow** at a feeder in Clay County. Only the second record for the state, this bird was present for almost a month, proving more cooperative to birders than the first record in 1990 (see ***The Loon*** 62:175–177 and *Birders Journal* 1:298–307 for reviews of the North American status of this species).

Despite the large number of species reported, only one Casual species was discovered this summer. A **Mississippi Kite** was observed in northeastern Minnesota in late June, representing the first

summer record for this species. It is very possible that there were more; no fewer than six summer observations were initially reported, but only one was adequately documented! As always, observers are reminded to take careful notes when an unusual bird is encountered.

Of note this year were several species documented for the first time in the summer. In addition to the Black-bellied Whistling-Duck, Mississippi Kite, and Painted Bunting already mentioned, an extremely late **Thayer's Gull** was documented at Duluth, not only in early June but also on the 30th! Summer records may seem unlikely for a "winter" gull, but our understanding of the status of many gull species has changed quite dramatically in recent years — as an example, see ***The Loon*** 68:14–34. Another species making its first summer appearance was a singing male **Worm-eating Warbler** in Nicollet County; this species is more likely to be encountered in late April or May.

Other records of interest this summer included several reports of **Red-throated Loons** lingering well into June on Lake Superior; a single record of the now-regular **Clark's Grebe**; no fewer than seven separate observations of **Snow Geese**, primarily in the west; an immature **Tundra Swan** in northwestern Minnesota; a late **White-winged Scoter**, also found in the northwest region; a **Ferruginous Hawk** in western Minnesota; a **Carolina Wren** discovered at Fort Snelling State Park; two reports of **Hooded Warblers** at traditional sites in southeastern Minnesota; and a very late migrant **Harris's Sparrow** found, of all places, in Rock County.

Noteworthy was the better-than-average movement of shorebirds statewide. Thirty-two species were documented, including species not always seen in recent summers such as **American Avocet**, **Whimbrel**, **Red Knot**, **Long-billed Dowitcher**, and **Red-necked Phalarope**. Exceptionally large numbers of **Semipalmated Sandpipers**, **Ruddy Turnstones**, **Sanderlings**, and **Dunlins** were reported. On 5–8 June, Karl Bardon was able to find 22 species of shorebirds in northwestern Minnesota. Also making a good showing were the waterfowl; for example, **Trumpeter Swans** continued to breed successfully, the **Canada Goose** was as omnipresent as ever, and the **Hooded Merganser** was reported in a record number of counties. In contrast to the waterbirds just mentioned, several species within the heron family were scarce. **American Bittern**, **Least Bittern**, and **Black-crowned Night-Heron** were reported in fewer counties than normal. Only one sighting each of **Snowy Egret** and **Little Blue Heron** was reported, while reports of **Yellow-crowned Night-Herons** were limited to two. The exception was the above-average number of reports for **Great Blue Heron**.

Of special interest was the extraordinary 50+ singing **Black-throated Blue Warblers** found in Lake County this summer. Examples of other species reported more commonly than usual were **Wild Turkey, Sandhill Crane, Winter Wren**, **Blue-winged Warbler**, **Scarlet Tanager**, and **Nelson's Sharp-tailed Sparrow**. More than usual numbers of **Henslow's Sparrows** were found this year; see ***The Loon*** 70:153–154 for a review of this species' recent status. On the flip side, for some unknown reason there was a big drop in reports of **Western Grebes**; also showing declines were **Sora**, **Caspian Tern**, **Acadian Flycatcher**, **Warbling Vireo**, **Vesper Sparrow**, and **Dickcissel**.

Format, Maps, and Acknowledgments

The format for the species accounts is similar to that of recent years. The key to the seasonal reports is located on page 16. Breeding records are classified based on the criteria found in ***The Loon*** 58:22 or in *Minnesota Birds*, p.7 (Green and Janssen 1975). Each species having at least one **positive** nesting record in 1998 has an accompanying map indicating the counties in which the records occurred. Suspected or probable nesting reports are not mapped. Counties for which positive

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).

A final thanks to all of the summer season reporters who make it possible to document avian distribution and migration. Thanks also to Anthony Hertzel for compiling the Minnesota Rare Bird Hotline reports and preparing the breeding maps, and to Peder Svingen and Kim Eckert for their assistance in preparing this report.

3230 Strand Rd., Duluth, MN 55803.

KEY TO SEASONAL REPORTS

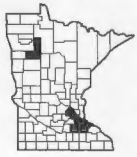
1. Species listed in upper case **(LEAST TERN)** indicate a Casual or Accidental occurrence in the state.
2. Dates listed in bold **(10/9)** indicate an occurrence either earlier, later or within the earliest or latest dates on file.
3. Counties listed in bold **(Aitkin)** indicate an unusual occurrence for that county.
4. Counties listed in underline **(Aitkin)** indicate a first county record.
5. Counties listed in italics *(Aitkin)* indicate a first county breeding record.
6. Brackets [ ] indicate a species for which there is reasonable doubt as to its origin or wildness.

The Season publishes reports 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.

Red-throated Loon — Several reports of late migrants, all at Duluth in St. Louis County; 6/4 (2) KB, 6/15 (3) *fide* KE, 6/25–26 LF, 6/30 KB.

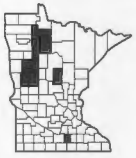
Common Loon — Observed in 30 counties as far south as a line through Wilkin, Kandiyohi, McLeod, Ramsey; plus 6/15 Olmsted. Probable nesting in Beltrami, Todd, Anoka.

Pied-billed Grebe — Seen in 36 counties throughout the state. New nesting record in *Dakota* TT; probable nesting in seven counties.



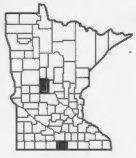
Horned Grebe — Only reports: 6/10 Clay (Hotsie L.) NWi *et al.*; 6/6 and 7/12 Roseau (up to 3 at Roseau River WMA) KB, PS; 6/28 Roseau (Roseau sewage ponds) PS.

Red-necked Grebe — Nested in six counties including Waseca JSe; probable nesting in Marshall, Todd, Lincoln, Hennepin. Seen in eight additional northwest and west central counties.



Eared Grebe — Probable breeding in Waseca. Also observed in Roseau, Marshall, Polk, Pennington, Clay, Wilkin, Hennepin; plus 6/4 Olmsted.

Western Grebe — Remarkably few reports (less than one-half the previous ten-year average). Seen in Roseau, Marshall, Big Stone, Faribault, Freeborn; probable nesting in Douglas.

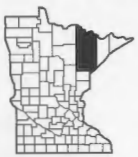


CLARK'S GREBE — Single adult observed among many Westerns on 6/15 and 7/11 at L. Osakis in Todd Co. PS, AH.

American White Pelican — Probable nesting in Faribault; seen in 31 additional counties statewide. Peak 7/5 Marshall (600) PS, JJ.

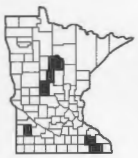
Double-crested Cormorant — Probable nesting in Big Stone, Yellow Medicine, Cook; observed in 38 additional counties throughout state.

American Bittern — Seen in 11 northern counties plus Anoka, Freeborn; probable nesting in Aitkin.

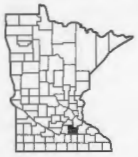


Least Bittern — Fewest reports in 18+ years. Probable nesting in Hennepin; also observed in Kittson, Clay.

Great Blue Heron — Many reports, similar to previous two years. Reported in 65 counties statewide. New nesting record in *Lyon* RgS; probable breeding in seven counties.



Great Egret — Seen in 29 counties as far north as Otter Tail, Kanabec; probable nesting in Otter Tail.

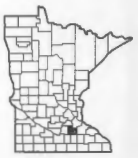


Snowy Egret — Only report: 6/10 Marshall (Agassiz NWR) BK, BBe.

Little Blue Heron — Calico immature observed 6/17–20 at Minnesota Valley NWR Headquarters, Hennepin (JEl, mob).

Cattle Egret — All reports: 6/7 Houston AH, PS; 7/7 Clay (20 near Downer) RK; 7/12 Scott *fide* AH; 7/15 Freeborn ABa; 7/29–30 Rice (3) CMa, TBo, JL.

Green Heron — Seen in 38 counties as far north as Marshall, Beltrami, St. Louis; probable nesting in Olmsted.



Black-crowned Night-Heron — Seen in nine counties south plus Otter Tail, Clay, Marshall, 7/4 Aitkin WN, 7/11 Beltrami PS; probable nesting in Otter Tail, Ramsey.

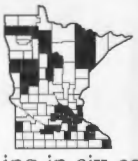
Yellow-crowned Night-Heron — Holdover from spring reported through 6/6 on Minnesota R. near New Ulm in Nicollet Co. BBo; also 6/7 Dakota PS, AH.

Turkey Vulture — Reported in 44 counties statewide.

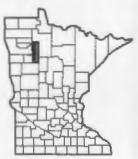
BLACK-BELLIED WHISTLING-DUCK — Single bird discovered in spring (***The Loon*** 70:244) reported through 6/22 in a wetland within Summit Township in **Steele Co**. AH, PS. This represents the 5th state record and the first summer record.

Snow Goose — Most reports since 1989: 6/2 Cottonwood (4) ED, 6/4 St. Louis KB, 6/6 Redwood DBS, 6/6 Roseau (6) KB, 6/9 Wilkin KB, 6/23 Big Stone KB, 7/19 Pennington PS.

Canada Goose — Many reports, similar to previous two years. Seen in 64 counties statewide. New nesting records in *Beltrami* DJo, *Lincoln* RgS, *Wright* RbS, *Houston* KK, *St. Louis* JLi, JN; probable nesting in six counties.

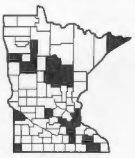


[Trumpeter Swan] — New nesting record in *Clearwater* ABo; probable breeding in Norman, Mahnomen, Becker, Wright, Le Sueur, Rice. Also observed in Wadena, Aitkin, Meeker, Cottonwood.



Tundra Swan — Immature observed on **6/7** at Warren sewage ponds in Marshall Co. KB.

Wood Duck — Seen in 55 counties statewide. New nesting record in *Steele* CH; probable nesting in ten counties.

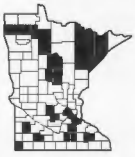


Gadwall — Many reports, similar to last year. Observed in nine western counties plus Koochiching, St. Louis, Hennepin, Waseca, Olmsted, Mower.

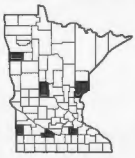
American Wigeon — Seen in eight northern counties plus Big Stone, Dakota, Olmsted.

American Black Duck — Reported in Pennington, Koochiching, St. Louis, Lake; plus 6/8 Big Stone (2) RJ.

Mallard — Observed in 61 counties throughout state. New nesting record in *Steele* FKS; probable nesting in ten counties.



Blue-winged Teal — Seen in 45 counties statewide. New nesting records in *Norman* GN, *Brown* MRN, *Lincoln* RgS, MRN; probable nesting in Hennepin, Dakota, Freeborn.



Northern Shoveler — Most reports since 1992. Observed in 19 counties statewide, including St. Louis in northeast.

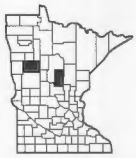
Northern Pintail — Probable nesting in Beltrami; also seen in Roseau, Koochiching, Clay, Traverse, Big Stone.

Green-winged Teal — Reported in 18 counties scattered throughout the state.

Canvasback — Seen in seven western counties plus Hennepin, Dakota.

Redhead — New nesting record in *Becker* AJ; observed in 12 additional western counties plus St. Louis, Meeker, Hennepin, Waseca.

Ring-necked Duck — Reported in 21 counties as far south as Redwood, Steele; probable nesting in Beltrami.

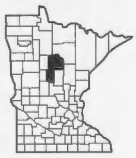


Lesser Scaup — Seen in five northwestern counties plus Beltrami, Koochiching; also June sightings in Hennepin, Cottonwood, Freeborn, Olmsted.

White-winged Scoter — Immature male observed on **6/6** at Roseau Sewage Ponds in Roseau Co. KB. This represents only the second summer record in 13 years.

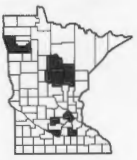
Bufflehead — Many reports: 6/5 Koochiching KB, 6/6 Roseau KB, 6/7 Pennington KB, 6/17 Sherburne RJ, 7/18 Becker BSe.

Common Goldeneye — Many reports, similar to last year. Probable breeding in Koochiching, Beltrami, Clearwater, Hubbard, Lake; also observed in Roseau, Lake of the Woods, Becker, Cass, Aitkin, St.



Louis, Cook.

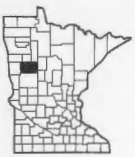
Hooded Merganser — Record high number of reports; seen in 33 counties statewide. New nesting record in *Cass* DZ; Probable nesting in Becker, Todd, Chisago, Washington, Lincoln, Lyon.



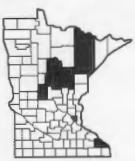
Common Merganser — Probable breeding in Aitkin; also observed in Hubbard, St. Louis, Cook.

Red-breasted Merganser — Unusual report 7/15 Beltrami/Clearwater (Lower Red L.) ABo; also recorded in St. Louis, Cook.

Ruddy Duck — Seen in 12 western counties plus Hennepin, Waseca, Freeborn, Olmsted; new nesting record in *Becker* AJ.

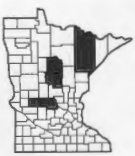


Osprey — Observed in 23 counties as far south as Brown, Jackson, Olmsted, Winona; probable nesting in Becker, Wright, Carver.



MISSISSIPPI KITE — First summer record for this species: adult on **6/29** near Duluth in St. Louis Co. PS (***The Loon*** 71:50–51).

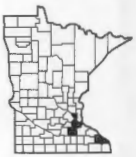
Bald Eagle — Many reports, for third consecutive year; seen in 38 counties in all regions except southwest. New nesting records in *Pope* SDM, *Stearns* SWi; probable nesting in Marshall, Aitkin, Lake, Sherburne, Kanabec, Freeborn, Olmsted.



Northern Harrier — Probable nesting in Wilkin; seen in 33 other counties statewide.

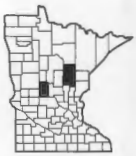
Sharp-shinned Hawk — Probable nesting in Lake. Seen in six other north central and northeast counties plus Otter Tail, Kanabec, Pine.

Cooper's Hawk — Observed in 29 counties throughout state, including St. Louis in northeast. New nesting record in *Rice* JL, JLa; probable nesting in Lyon.



Northern Goshawk — Only reports from Kittson, Roseau; none reported in northeast.

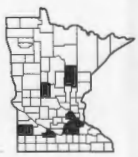
Red-shouldered Hawk — Observed in 14 counties roughly along a line from Cass to Houston; new nesting record in *Todd* SDu, JSK.



Broad-winged Hawk — Seen in 21 counties as far west and south as a line through Roseau, Todd, Fillmore; probable nesting in Hennepin.

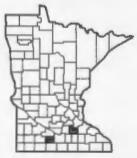
Swainson's Hawk — Recorded in Big Stone, Pipestone, Rock, Lyon, Cottonwood, Washington, Dakota, Rice, Goodhue, Olmsted; plus new nesting record in *Brown* JSc, CS.

Red-tailed Hawk — Observed in 60 counties statewide. New nesting records in *Lincoln* RgS, *Lyon* RgS; probable nesting in McLeod, Goodhue, Freeborn.



Ferruginous Hawk — Adult carefully identified on 7/6 at Felton Prairie in Clay Co. PS.

American Kestrel — Seen in 57 counties throughout state; probable nesting in Lincoln, Lyon, Freeborn, Winona.

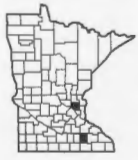


Merlin — More reports than usual. New nesting record in *Kittson* (PS, JJ) involving at least one "Richardson's" Merlin; probable nesting in St. Louis. Also observed in Lake of the Woods, Beltrami, Aitkin, Lake, and Cook counties; plus 7/19 Grant BSe.

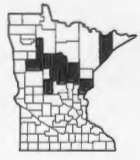
Peregrine Falcon — Similar breeding distribution as in previous few years. Confirmed nesting in 12 counties, probable nesting in Olmsted (Midwest Peregrine Restoration Project); also observed in Aitkin.

Gray Partridge — Probable breeding in seven southern counties; also observed in Brown, Martin, Cottonwood, Wilkin, Clay, Mahnomen, Polk.

Ring-necked Pheasant — Observed in 33 counties as far north as Wilkin, Todd, Isanti, Chisago; plus 6/28 Roseau (escapee?) PS. Probable nesting in McLeod, Hennepin, Ramsey, Rice, Freeborn.



Ruffed Grouse — Nested in nine counties including *Todd* JSK; probable nesting in Beltrami, Kanabec. Also observed in Wadena, St. Louis, Cook, Stearns, Fillmore, Houston.

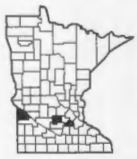


Spruce Grouse — Reported in Itasca, Lake, Cook.

Sharp-tailed Grouse — Probable nesting in Beltrami, Carlton; also observed in Kittson, Roseau, Aitkin, St. Louis.

Greater Prairie-Chicken — All reports: Polk (Pembina Prairie), Clay (Felton Prairie), Wilkin.

Wild Turkey — Record high number of reports. New nesting records in *Lac Qui Parle* FE, *Scott* ABo; probable breeding in Stearns, Rice, Waseca, Olmsted, Fillmore, Houston. Additional probable nesting recorded in Becker (wild?) BBe. Observed in Big Stone, McLeod, Nicollet, Chisago, Dakota, Goodhue, Freeborn, Mower.



Northern Bobwhite — Two reported on 7/20 near Spring Grove in Houston Co. AH, PS.

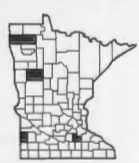
Yellow Rail — All reports: Kittson, Marshall, Aitkin.

Virginia Rail — Observed in 14 counties in all regions except southwest and south central.

Sora — Very few reports for second consecutive year. Observed in 18 counties in all regions except south central; new nesting records in *Lincoln* RgS, *Lyon* RgS.

Common Moorhen — Only report: possible nesting in Wabasha.

American Coot — Seen in 28 counties in all regions except northeast; probable nesting in Beltrami, Steele.



Sandhill Crane — Many reports, for fourth consecutive year. Observed in 22 counties as far northeast as St. Louis, and as far southwest as a line through Polk, Stearns, Freeborn. New nesting records in *Crow Wing* WN, *Dodge* DA, BE; probable nesting in St. Louis, Todd, Anoka, Rice, Freeborn. No fewer than **188** (168 at one location!) were counted on 6/29 during a breeding bird survey in Kittson Co. PS.

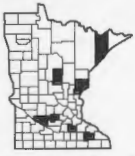
Black-bellied Plover — Many late spring reports: 6/3 Roseau, 6/3–5 Olmsted, 6/4 St. Louis, **6/7** Swift, **6/17** St. Louis. Only fall report 7/26 Marshall.

American Golden-Plover — All reports: 6/4 St. Louis, 6/7 Swift, 7/30 Dakota.

Semipalmated Plover — Migrants observed in ten counties; late spring 6/10 Marshall, early fall 7/19 Big Stone.

Piping Plover — Only report: nested in Lake of the Woods.

Killdeer — Seen in 69 counties statewide. New nesting records in *Pine* SWe, *Renville* RgS; probable nesting in eight counties. Post-breeding concentration of 79 observed on 7/29 near Lino Lakes in Anoka Co. KB.



American Avocet — First summer reports in three years: 6/3 Roseau (2) BSi, 6/5 Olmsted DA, BE, 6/11–15 Kanabec CM, 6/8 Big Stone (total of three at two different locations) RJ, 7/19, 25 Big Stone (up to five at Barry) KB.

Greater Yellowlegs — Migrants reported in 16 counties statewide. Late migrant 6/19 Lyon, early migrant 7/3 Jackson; fall peak 7/19 Big Stone (**96**) KB.

Lesser Yellowlegs — Migrants reported in 26 counties throughout state. Late migrant 6/10 Olmsted; early migrants 6/26 Dakota, 6/27 Big Stone.

Solitary Sandpiper — Reported in Koochiching, St. Louis, Aitkin, Carlton, Lake, and Cook; plus July migrants seen in ten additional counties statewide. Spring migrant dates include 6/2 Hennepin SC, **6/14** Kittson (summer status in this county?) PS.

Willet — Many reports, similar to last year. Spring migrants observed in five counties; late migrant **6/7** Marshall KB. Fall migrants 7/25 Big Stone, 7/30 Becker.

Spotted Sandpiper — Probable nesting in Pine; seen in 35 additional counties statewide.

Upland Sandpiper — Reported in 13 western counties plus Beltrami, Clearwater, Dakota, Rice, Waseca, Fillmore.

Whimbrel — First summer reports in six years. First county record on 6/8 in **Lac Qui Parle** (13) RJ; three observed on 6/2 at Duluth in St. Louis Co. CB.

Hudsonian Godwit — All reports: 6/4 St. Louis (holdover from late spring) KB, **6/9** Big Stone (3) RJ.

Marbled Godwit — Observed in ten northwest and west central counties; plus 6/2–4 St. Louis PS, CB.

Ruddy Turnstone — Record number of late spring reports; seen in eight counties. Late migrant **6/9** Wilkin KB.

Red Knot — Only report: **6/5** Lake of the Woods (two at Morris Point) KB.

Sanderling — Record number of reports; spring and fall migrants observed in nine counties. Late migrant **6/10** Big Stone, early migrant **7/12** Marshall.

Semipalmated Sandpiper — Record number of reports, almost twice the previous ten-year average; spring and fall migrants seen in 21 counties statewide. Late migrants **6/16** Jackson KB, **6/17** St. Louis; early migrant 7/5 Big Stone. Fall peak 7/25 Big Stone (**375**) KB.

Least Sandpiper — Spring and fall migrants reported in 16 counties statewide; late migrant **6/10** Marshall, early migrant 6/30 St. Louis. Fall peak 7/12 Marshall (30) PS.

White-rumped Sandpiper — Spring migrants seen in seven counties; late migrant 6/17 St. Louis. Only fall migrant reported **7/8** St. Louis PS. Spring peak 6/7 Pennington (25) KB.

Baird's Sandpiper — Spring and fall migrants observed in nine counties; late migrant **6/7** Big Stone and Pennington; early migrant 7/12 Marshall.

Pectoral Sandpiper — All spring records: 6/2 Renville, Watonwan, and St. Louis. Fall migrants seen in 15 counties; early migrant 7/1 Dakota. Fall peaks 7/5 Big Stone (40+) LE, 7/25 Big Stone (36) KB.

Dunlin — Record high number of reports. Spring migrants observed in eight counties; late migrant 6/9 Big Stone. Only fall record 7/27 St. Louis. Spring peak 6/2 Renville (40) AH.

Stilt Sandpiper — Fall migrants seen in Rice, Faribault, Becker, Clay, Big Stone (peak of 43 on 7/19 KB), Marshall (peak of 85 on 7/12 PS); plus early migrant **7/4** Jackson KB.

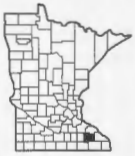
Buff-breasted Sandpiper — Only report: 7/25–26 Hennepin (International Airport) SC, mob.

Short-billed Dowitcher — All spring records: **6/7** Marshall KB, **6/9** Wilkin KB. Fall migrants seen in eight counties; early migrant 7/3 Jackson. Fall peak 7/12 Marshall (60) PS.

Long-billed Dowitcher — First summer reports in six years: 7/28 Becker (2) BBe, 7/30 Clay (3) AH, 7/30 Marshall JJ.

Common Snipe — Most reports since 1989. Observed in 26 counties as far south as a line through Traverse, Stearns, Rice, Washington.

American Woodcock — Very few reports, almost half the previous ten-year average. Reported in Cook, Aitkin, Wilkin, Stearns, Anoka, Brown, Olmsted.



Wilson's Phalarope — Seen in nine western counties as far south as Jackson; plus Renville and fall migrant 7/26 Rice. Peak concentrations: 6/5 Roseau (113) KB, 7/25 Big Stone (312) KB.

Red-necked Phalarope — First summer reports in three years: 6/6 Kittson and Roseau, 7/25 Big Stone, 7/26 Polk, 7/30 Clay.

Franklin's Gull — Observed in eight western counties plus Lake of the Woods, Beltrami, Meeker, Renville, Carver, Sibley.

Bonaparte's Gull — June and July observations in six northern counties plus 6/23 Big Stone KB, Olmsted (no date) DA, BE. Peak of 30 counted on 6/26 in Todd Co. RJ.

Ring-billed Gull — Seen in 40 counties statewide. New nesting record in *Beltrami* DJo; also nested at traditional Interstate Island site in Duluth (about 3500–4000 adults) PS.

Herring Gull — Probable nesting in Cook; seen in ten other counties scattered statewide.

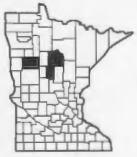
Thayer's Gull — First summer record for this species in the state. First-year immature photographed and carefully identified on **6/4** and **6/30** at Duluth in St. Louis Co. KB.

Caspian Tern — Very few reports (one-third of the previous ten-year average). Observed on several June dates in St. Louis County; also seen 7/3 Steele FKS, 7/8 Dakota DBS, Olmsted (no date) DA, BE.

Common Tern — Probable nesting in St. Louis; also seen in Roseau, Lake of the Woods, Marshall, Pennington, Aitkin. Late migrant **6/2,4** Hennepin SC.

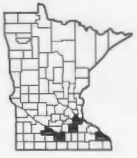
Forster's Tern — Observed in 29 counties in all regions, including St. Louis in the northeast and Olmsted in the southeast.

Black Tern — Seen in 43 counties statewide, including St. Louis in the northeast; probable nesting in Kittson, Beltrami, Wilkin.



Rock Dove — Many reports, for third consecutive year. Observed in 55 counties throughout state; probable nesting in Lincoln, Lyon, Dakota, Freeborn.

Mourning Dove — Record high number of reports. Recorded in 72 counties statewide; probable nesting in six counties.

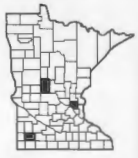


Black-billed Cuckoo — Observed in 32 counties throughout state; probable nesting in Kittson, Dodge.

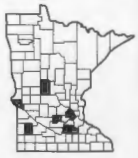
Yellow-billed Cuckoo — Reported in 13 counties as far north as Aitkin; unusual was only one (Jackson County) record from all western regions.

Young Eastern Screech-Owls in nest box, 4 May 1998, Anoka, Anoka County. Photo by Ruth Andberg.

Eastern Screech-Owl — Probable nesting in Hennepin, Freeborn; also observed in Clay, Todd, Murray, Rice, Olmsted.



Great Horned Owl — Seen in 25 counties statewide. New nesting record in *Todd* JSK; probable nesting in Cass, McLeod.



Young Barred Owl, 7 June 1998, Fillmore County. Photograph by Anthony Hertzel.

Barred Owl — Probable nesting in Fillmore; seen in 17 additional counties in all regions except northwest, west central, and southwest.

Great Gray Owl — New nesting record in *Lake* DV; also reported in St. Louis, Aitkin, Pine.

Long-eared Owl — Only report from Aitkin County.

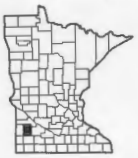
Short-eared Owl — Only reports: Kittson, Roseau.

Northern Saw-whet Owl — Only report from Itasca.

Common Nighthawk — Seen in 32 counties statewide; new nesting record in *Lyon* RgS.

Whip-poor-will — Observed in Kittson, Roseau, Marshall, St. Louis, Cook, Pine, Anoka, Washington, Dakota, Olmsted, Houston.

Chimney Swift — Seen in 46 counties throughout state. New nesting record in *Lyon* RgS; probable breeding in Todd.



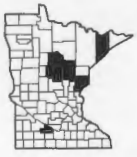
Ruby-throated Hummingbird — Reported in 39 counties statewide. New nesting record in *Lake* JLi; probable nesting in Hubbard, Aitkin, St. Louis, Olmsted.

Belted Kingfisher — Most reports since 1988. Observed in 53 counties throughout state; probable nesting in Lincoln.

Red-headed Woodpecker — Seen in 41 counties in all regions, including St. Louis in northeast; probable nesting in Pennington, Cass, Sherburne, Renville, Yellow Medicine, Lyon, Freeborn.

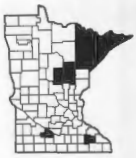
Red-bellied Woodpecker — Observed in 28 counties as far north as Clay, Aitkin; probable breeding in eight counties.

Yellow-bellied Sapsucker — Most reports since 1988; seen in 39 counties statewide. New nesting record in *Pine* JSD; probable nesting in Murray, McLeod, Nicollet, Goodhue, Fillmore.



Downy Woodpecker — Reported in 51 counties throughout state. New nesting record in *McLeod* RbS; probable nesting in 12 counties.

Hairy Woodpecker — Observed in 45 counties statewide; probable nesting in eight counties.



Three-toed Woodpecker — All reports: 6/23 Lake (two males along Spruce Rd.) DBe, KE; 7/10 Cook (male near Twin L. on Gunflint Trail) SL.

Black-backed Woodpecker — Probable breeding in Roseau; also observed in Hubbard, Lake, Cook.

Northern Flicker — Seen in 54 counties statewide. New nesting records *in Yellow Medicine* RgS, *Lyon* RgS; probable nesting in Lake, Cook, Aitkin, McLeod, Freeborn.

Pileated Woodpecker — Probable nesting in Becker, Crow Wing; seen in 32 additional counties in all regions except southwest.

Olive-sided Flycatcher — More reports than usual, with many late spring migrants. Observed in Roseau, Koochiching, Aitkin, St. Louis, Cook; plus June migrants in 14 other counties scattered statewide. Late migrant **6/19** Ramsey.

Eastern Wood-Pewee — Seen in 49 counties in all regions except southwest; probable nesting in Otter Tail, Lake, Pine, Fillmore.

Yellow-bellied Flycatcher — Observed in nine north central and northeast counties plus Marshall; late migrants 6/2 Rice, 6/9 Hennepin.

Acadian Flycatcher — Few reports, less than half as many as last year. Recorded in Hennepin, Scott, Rice, Houston.

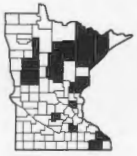
Alder Flycatcher — Seen in 18 northern

counties plus Sherburne, Isanti, Chisago, Anoka, Hennepin (7/3–30 KB, SC). Spring migrants observed in Washington, Dakota, Rice, Waseca; late migrant **6/24** Brown JSp. Probable nesting in Polk.

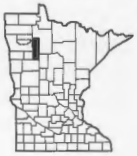
Willow Flycatcher — Recorded in 21 southern counties plus Wilkin, Clay, Lake of the Woods (7/27 PS); probable nesting in Lyon.

Least Flycatcher — Seen in 38 counties statewide; probable breeding in Beltrami, Lake, Pine.

Eastern Phoebe — Observed in 44 counties statewide. New nesting record in *McLeod* RbS; probable nesting in Beltrami, Clay.

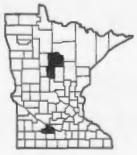


Great Crested Flycatcher — Reported in 51 counties throughout state; probable nesting in Crow Wing, Lyon.



Western Kingbird — Seen in 11 western counties plus Lake of the Woods, Hennepin, 6/1 Rice. New nesting record in *Lake of the Woods* PS; probable breeding in Wilkin.

Eastern Kingbird — Observed in 60 counties throughout state; probable nesting in Aitkin, Dakota, Freeborn.



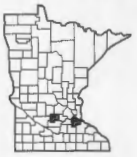
Loggerhead Shrike — Probable breeding in Dakota, Waseca, Dodge, Freeborn; also seen in Clay, Sherburne, Rice, Blue Earth.

Bell's Vireo — All reports: 6/13 Blue Earth (Minneopa S. P.) MF; 6/13 and 7/4 Waseca (Otisco Township) JSe; 6/15,20 Wabasha (McCarthy L.) DBe, BBr; 7/3 Dakota (Black Dog L.) TT; Winona (Great River Bluffs S. P., no date) AH, PS.

Yellow-throated Vireo — Observed in 33 counties in all regions except northeast and southwest; probable nesting in Kandiyohi.

Blue-headed Vireo — Reported in Koochiching, Hubbard, Aitkin, St. Louis, Lake, Cook, Carlton; plus **6/8** Brown JSp.

Warbling Vireo — Fewest reports in 15+ years. Seen in 31 counties in all regions, including St. Louis in northeast; new nesting record in *McLeod* RbS.

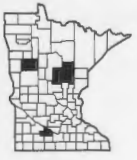


Philadelphia Vireo — Probable nesting in Lake; also observed in St. Louis, Cook. Late migrant **6/5** Dakota TT.

Red-eyed Vireo — Seen in 47 counties in all regions except southwest. New nesting record in *Washington* RJ; probable nesting in Becker, Aitkin, Pine, Houston.

Gray Jay — Probable nesting in St. Louis, Hubbard; also observed in Roseau, Beltrami, Koochiching, Aitkin, Lake, Cook.

Blue Jay — Seen in 62 counties statewide. New nesting record in *Becker* BBe; probable nesting in six counties.

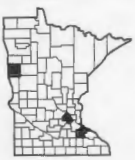


Black-billed Magpie — Reported in six northwest counties plus Lake of the Woods, Beltrami, Clearwater, Aitkin; probable nesting in St. Louis.

American Crow — Most reports in 15+ years; seen in 72 counties throughout state. New nesting records in *Lake* JLi, *Murray* ND; probable nesting in Ramsey, Nicollet, Freeborn.

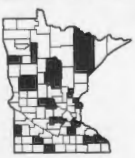
Common Raven — Probable breeding reported in Lake and Aitkin counties; seen in an additional eight northeast and north central counties. Also reported from Kittson, Roseau, Marshall, and Pine counties

Horned Lark — Observed in 32 counties as far north and east as a line through Roseau, Wadena, Morrison, Washington. New nesting record in *Goodhue* CH, JHo; probable nesting in Freeborn.



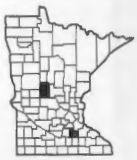
Purple Martin — Reported in 44 counties statewide; probable nesting in 11 counties.

Tree Swallow — Seen in 60 counties throughout state. New nesting records in *Norman* GN, *Otter Tail* DST, *Lincoln* RgS, *Chisago* RH, *McLeod* RbS, *Martin* BBo; probable breeding in six counties.

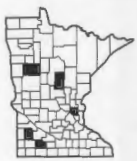


Northern Rough-winged Swallow — Probable nesting in Freeborn, Houston; seen in 26 other counties in all regions except northwest.

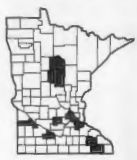
Bank Swallow — Reported in 31 counties statewide. New nesting record in *Todd* JSK; probable nesting in Norman, St. Louis, Lincoln, Anoka, Freeborn.



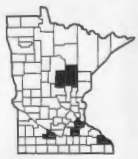
Cliff Swallow — Seen in 49 counties throughout state. New nesting records in *Becker* AJ, *Cottonwood* MRN, *Lyon* RgS, MRN; probable nesting in nine counties.



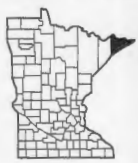
Barn Swallow — Observed in 65 counties statewide. New nesting records in *Yellow Medicine* RgS, *McLeod* RbS, *Fillmore* NO; probable nesting in eight counties.



Black-capped Chickadee — Recorded in 51 counties throughout state; probable breeding in eight counties.



Boreal Chickadee — Probable nesting in Lake; also seen in Koochiching, Aitkin, St. Louis, Cook.

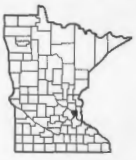


Tufted Titmouse — Probable nesting in Winona, Fillmore; also observed in Houston.

Red-breasted Nuthatch — Seen in ten northeast and north central counties plus Roseau, Marshall, Morrison, Kanabec, Pine, Anoka, Washington, and Ramsey; probable nesting in St. Louis, Lake, Ramsey. Unusual report **7/12** Freeborn (2) ABa.

White-breasted Nuthatch — Reported in 48 counties statewide. New nesting record in *Rice* JLa; probable nesting in Pennington, Norman, Otter Tail, Todd, Aitkin, McLeod, Brown.

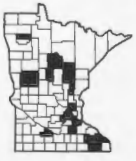
Brown Creeper — More reports than usual. Observed in eight northeast and north central counties plus Roseau, Hennepin, Ramsey, Brown; unusual record 7/1 **Freeborn** ABa. New nesting record in *Ramsey* JSe, probable nesting in Lake.



Carolina Wren — Third summer record in seven years. Observed 7/18–19 at Fort Snelling S. P. in Hennepin Co. BF, mob.

BEWICK'S WREN — Holdover from spring (***The Loon*** 70:219) present through at least 7/17 at Sherburne NWR in Sherburne Co. mob; this is only the second summer record in the past 15 years.

House Wren — Seen in 55 counties statewide; probable nesting in seven counties.



Winter Wren — Most reports ever for this species. Observed in 14 counties as far south and west as a line through Marshall, Becker, Anoka, Washington; plus 6/7 and 7/20 Houston (Beaver Creek S. P.) AH, PS. Probable nesting in Cook.

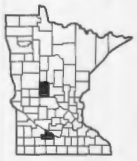
Sedge Wren — Seen in 44 counties throughout state. New nesting record in *Polk* RgS, probable nesting in Murray.

Marsh Wren — Reported in 34 counties in all regions except northeast.

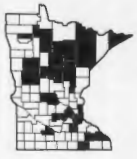
Golden-crowned Kinglet — Most reports since 1992. Probable breeding in St. Louis; also seen in Marshall, Beltrami, Koochiching, Aitkin, Carlton, Lake, Cook.

Ruby-crowned Kinglet — Observed in Marshall, Beltrami, Hubbard, Koochiching, St. Louis.

Blue-gray Gnatcatcher — Probable nesting in Todd, Lyon, Nicollet, Rice, Olmsted. Seen in nine additional southeast and east central counties as far north as Chisago; plus Brown, Scott, Big Stone, Stearns, Aitkin.



Eastern Bluebird — Observed in 59 counties statewide; probable nesting in seven counties.



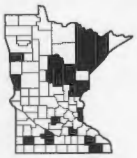
Veery — Seen in 33 counties as far south and west as a line through Clay, Douglas, Nicollet, Rice, Houston; probable nesting in Lake, Crow Wing.

Swainson's Thrush — New nesting record in *Lake* JLi. Also reported in Roseau, Koochiching, St. Louis, Cook; plus 6/6 Wilkin, **6/6** Olmsted.

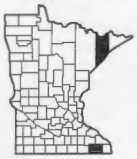
Hermit Thrush — Observed in Roseau, Lake of the Woods, Beltrami, Clearwater, Aitkin, Hubbard, Koochiching, St. Louis, Lake, Cook.

Wood Thrush — Reported in 22 counties in the state as far west as Lake of the Woods, Clearwater, Douglas, Swift, Brown.

American Robin — Most reports in 15+ years; seen in 72 counties statewide. New nesting record in *Norman* GN, *Wilkin* GN; probable nesting in 11 counties.

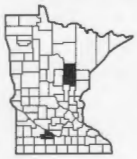


Gray Catbird — Observed in 51 counties statewide. New nesting record in *Fillmore* NO; probable nesting in Becker, Crow Wing, Washington, Lyon, Freeborn.

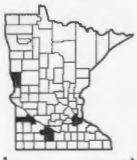


Northern Mockingbird — Total of three reports: 6/6 Aitkin AH; 6/3–12 **Kanabec** (first county record) CM, mob; mid-May through 7/22 Pipestone ND, mob.

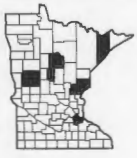
Brown Thrasher — Seen in 41 counties throughout state; probable nesting in Norman, Crow Wing, St. Louis, Lyon, Ramsey, Watonwan, Freeborn.



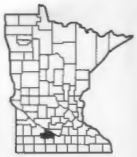
European Starling — Observed in 53 counties across the state. New nesting records for *Wilkin* GN, and *Yellow Medicine* RgS; probable nesting in Chisago, Hennepin, McLeod, Rice, and Freeborn counties.



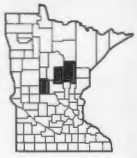
Cedar Waxwing — Reported in 49 counties throughout state. New nesting record in *Pine* JSD; probable breeding in 12 counties.



Blue-winged Warbler — New nesting in *Brown* JSp; probable nesting in Rice, Houston. Seen in ten additional east central and southeast counties plus Scott, Nicollet; also 6/19 **Cass** DZ, 6/26 **Douglas** RJ (both first county records, the latter was first found in May). Of interest was a partial albino observed in Winona AH.



Golden-winged Warbler — Reported in 15 counties as far west and south as a line through Roseau, Todd, Washington. New nesting record in *Todd* SDu, JSK; probable nesting in Beltrami.

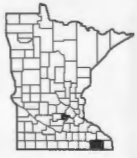


Tennessee Warbler — Fewest reports since 1991. Seen in Marshall, Pennington, Beltrami, Clearwater, St. Louis, Cook; plus late migrant 6/7 Hennepin, early migrant 7/16 Hennepin.

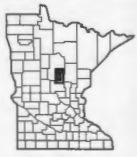
Nashville Warbler — Fewest reports since 1990. Observed in ten northeast and north central counties plus Marshall, Chisago, Anoka; probable nesting in Crow Wing, Aitkin, Anoka.

Northern Parula — Recorded in Beltrami, Koochiching, Clearwater, Hubbard, Aitkin, St. Louis, Lake, Cook.

Yellow Warbler — Seen in 52 counties statewide. New nesting records in *Carver* JS/MN, *Fillmore* NO; probable nesting in Becker, Aitkin, Kanabec, McLeod, Dakota.



Chestnut-sided Warbler — Observed in 21 counties as far west and south as Pennington, Otter Tail, Hennepin; plus late migrants **6/8** Rice, **6/9** Brown. Probable nesting in Aitkin, Lake.



Magnolia Warbler — Seen in Koochiching, Aitkin, St. Louis, Lake, Cook; plus late migrants 6/2 Rock, **6/9** Hennepin.

Cape May Warbler — Recorded in Beltrami, Clearwater, Aitkin, St. Louis, Lake, Cook.

Black-throated Blue Warbler — A remarkable **53** singing males located during research study at Tettegouche S. P. in Lake Co. JLi; also reported in Cook.

Yellow-rumped Warbler — Seen in ten northeast and north central counties plus Kittson, Marshall; probable nesting in Crow Wing, Cook.

Black-throated Green Warbler — Observed in eight northeast and north central counties plus Roseau; late migrants 6/1 Sherburne and Wright, **6/9** Hennepin.

Blackburnian Warbler — Seen in nine northeast and north central counties plus Pennington; late migrant **6/6** Hennepin SC. Probable nesting in Lake.

Pine Warbler — Recorded in seven north central counties plus St. Louis, Pine, Chisago, Anoka, Washington.

Palm Warbler — Observed in Beltrami, Koochiching, Aitkin, Lake, Cook; plus late migrant **6/10** Hennepin DBo.

Bay-breasted Warbler — Only reports from St. Louis, Cook.

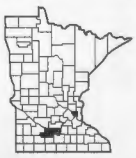
Blackpoll Warbler — All reports: 6/1 Wright, 6/2 Rock, 6/4 Otter Tail.

Cerulean Warbler — Observed in Anoka, Washington, Brown, Nicollet, Rice, Houston.

Black-and-white Warbler — Seen in 17 counties as far west and south as a line through Kittson, Hubbard, Hennepin; plus 6/1 Wright, 7/18 Clay. Probable nesting in Lake.

American Redstart — Reported in 44 counties in all regions except southwest. New nesting record in *Fillmore* NO; probable nesting in Becker, Aitkin, Rice.

Prothonotary Warbler — Probable nesting in Dakota; also observed in Anoka, Hennepin, Ramsey, Washington, Scott, Nicollet, Brown, Houston.



Worm-eating Warbler — First summer record for this species in the state. Single male singing on **6/2** at Seven Mile Creek County Park in **Nicollet** PB, AH.

Ovenbird — Most reports ever for this species; seen in 40 counties as far southwest as a line through Clay, Pope, Brown, Fillmore. New nesting record in *Todd* SDu, JSK; probable nesting in Aitkin.

Northern Waterthrush — Probable breeding in Lake; also observed in Kittson, Aitkin, St. Louis, Cook. Late migrant **6/2** Brown.

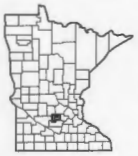
Louisiana Waterthrush — Probable nesting in Houston; also reported in

Washington (Falls Creek SNA) KB.

Connecticut Warbler — Seen in Marshall, Beltrami, Hubbard, Koochiching, Itasca, Aitkin, St. Louis; plus late migrants 6/2 Hennepin, 6/5 Clay.

Mourning Warbler — Observed in 11 northeast and north central counties plus Marshall, Hennepin, Dakota; late migrants 6/4 Otter Tail, 6/6 Clay, **6/10** Brown. Probable nesting in Beltrami.

Common Yellowthroat — Reported in 60 counties statewide. New nesting record in *McLeod* RbS; probable nesting in Crow Wing, Dakota, Freeborn, Fillmore.



Hooded Warbler — All reports: 6/1,6 Scott (Murphy-Hanrahan Park) PS, PBu; 6/4 Dakota (holdover from late May in Lebanon Hills Regional Park) DBS.

Wilson's Warbler — Recorded in Lake, Cook; plus late migrants 6/3 McLeod, 6/4 Fillmore, **6/7, 9, 10** Hennepin.

Canada Warbler — Seen in Clearwater, St. Louis, Lake, Cook; plus Anoka (two males on territory during June at Boot Lake SNA) KB. New nesting record, and first for southern Minnesota, in ***Washington*** (near Falls Creek SNA) KB (***The Loon*** 70:169–170). Late migrants 6/6 Clay and Rice, 6/9 Brown.

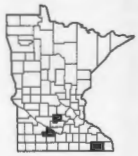
Yellow-breasted Chat — Single bird discovered on 6/15 at Great River Bluffs S. P. in Winona mob; last reported on 7/15.

Scarlet Tanager — Most reports in 17+ years; seen in 40 counties in all regions. New nesting record in *Lake* JLi; probable nesting in Todd, Lyon.

Eastern Towhee — Probable nesting in Anoka, Rice, Winona; observed in 15 additional counties along a line roughly from Kittson to Houston.

Chipping Sparrow — Seen in 56 counties statewide. New nesting record in *Big Stone* LE; probable nesting in 18 counties.

Clay-colored Sparrow — Reported in 40 counties including Jackson and Fillmore. New nesting records in *McLeod* RbS, ***Fillmore*** (farthest south nesting record for the state) CH, JHo.

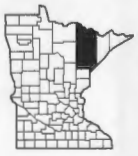


Field Sparrow — Observed in 25 southern counties plus Todd, Otter Tail, Clay. New nesting record in *Rice* JL, JLa; probable nesting in Todd, Fillmore.

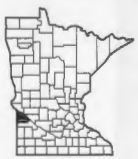
Vesper Sparrow — Fewest reports since 1985. Probable nesting in Freeborn; seen in 37 additional counties in all regions.

Lark Sparrow — Reported in Kittson, Clay, Renville, Sherburne, Anoka, Chisago, Scott, Wabasha.

Savannah Sparrow — Observed in 39 counties statewide.



Grasshopper Sparrow — Reported in 26 counties throughout the southern half of the state and in western counties as far north as Kittson; plus Lake of the Woods. A singing bird was also present

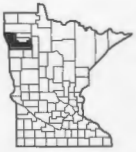


Henslow's Sparrow, 27 July 1998, Beaver Creek WMA, Fillmore County. Photo by Anthony Hertzel.

through 6/21 near Hoyt Lakes in St. Louis Co. (probably the same as one discovered there in late May) AE. New nesting record in *Lac Qui Parle* RJ; probable breeding in Murray.

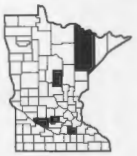
Henslow's Sparrow — All reports: 5/10–7/2 **Olmsted** (four at Chester Woods Park) CH *et al.*; 6/8,13 Clay (Bicentennial Prairie) KB, PS; 6/9,21 Wilkin (Rothsay WMA) KB, PS; 6/11 **Brown** (Stately Township) MCBS; 6/13 Dodge (Milton Township) DA, BE; 6/22 and 7/27 Fillmore (two at Beaver Creek WMA) AH, PS, RJ; 6/23 and 7/19 Swift (Appleton) KB.

LeConte's Sparrow — New nesting record in *Polk* RgS; also observed in Kittson, Roseau, Clay, Wilkin, Otter Tail, Big Stone, Swift, Lake of the Woods, Aitkin, St. Louis.



Nelson's Sharp-tailed Sparrow — Most reports ever for this species. Recorded in Kittson, Roseau, Lake of the Woods, Marshall, Polk, Clay, Wilkin, Otter Tail, Aitkin.

Song Sparrow — Seen in 58 counties statewide. New nesting records in *Renville* SWe, *McLeod* RbS; probable nesting in Beltrami, Becker, Ramsey, Fillmore.



Lincoln's Sparrow — Reported in Beltrami, Aitkin, St. Louis, Lake, and Cook counties.

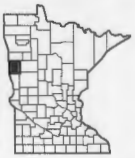
Swamp Sparrow — Observed in 37 counties throughout state; probable nesting in Crow Wing, Cook, Olmsted.

White-throated Sparrow — Seen in 11 northeastern and north central counties plus Kittson, Marshall, Becker, Pine, Anoka. New nesting record in *Becker* BK; probable nesting in Lake.

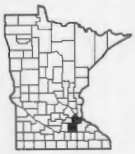
Harris's Sparrow — Only the third summer record in at least 19 years; late migrant **6/2** Rock AH.

Dark-eyed Junco — Only observation from Lake.

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



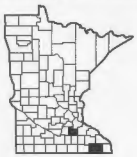
Northern Cardinal — Seen in 26 southern counties (although none in southwest) plus Becker, Todd, Aitkin, Kanabec, St. Louis; probable nesting in Todd, Ramsey, Freeborn, Winona.



Rose-breasted Grosbeak — Observed in 50 counties statewide; probable nesting in Otter Tail, Rice, Freeborn, Olmsted, Winona.

Blue Grosbeak — Recorded in Pipestone, Murray, and Rock. Also observed 7/21 **Renville** JC; plus 6/10, 15 **Lac Qui Parle** (pair gathering nest materials) RJ, PS.

Indigo Bunting — Observed in 44 counties statewide. New nesting record in *Fillmore* NO; probable nesting in Beltrami, Freeborn.

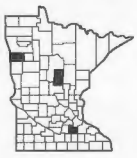


PAINTED BUNTING — First summer record for this species; single male seen on 6/2 at a Shakopee residence feeder in **Scott** Co.

Dickcissel — Relatively few reports; three consecutive years of decline since the most recent peak in 1995. Reported in 24 southern counties plus Becker in the northwest.

Bobolink — Seen in 49 counties statewide. New nesting record in *Todd* JSK; probable nesting in Otter Tail, Chisago.

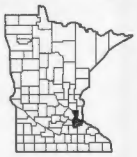
Red-winged Blackbird — Largest number of reports in more than 16 years; observed in 72 counties statewide. New nesting record in *Norman* GN; probable nesting in Otter Tail, Lincoln, Lyon, Ramsey, and Freeborn.



Eastern Meadowlark — Reported in 26 counties as far west as a line through Beltrami, Wright, Blue Earth.

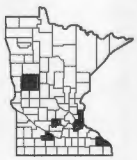
Western Meadowlark — Seen in 42 counties statewide, including St. Louis in the northeast; probable nesting in Lyon County.

Yellow-headed Blackbird — Observed in 47 counties statewide, including St. Louis in northeast. New nesting record in *Dakota* DBS; probable nesting in Wilkin, McLeod, Hennepin.

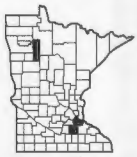


Brewer's Blackbird — Seen in 27 counties as far south as a line through Lac Qui Parle, Wright, Dakota; plus late migrant 6/7 Houston PS. Probable nesting in Aitkin.

Common Grackle — More reports than usual; recorded in 68 counties statewide. Probable breeding in seven counties.



Brown-headed Cowbird — Observed in 55 counties throughout state; probable breeding in Crow Wing, Ramsey, Freeborn. Parasitized species included Red-eyed Vireo, Tree Swallow, Ovenbird, Chipping Sparrow, Song Sparrow, Northern Cardinal, and House Finch.

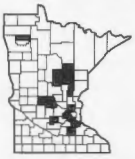


Orchard Oriole — Probable nesting in Renville; seen in 16 additional southern counties plus Traverse, Clay.

Baltimore Oriole — Recorded in 53 counties statewide. New nesting record in Rice JLa; probable nesting in 11 counties.

Purple Finch — Fewest reports since 1984. Observed in nine northeast and north central counties plus Kittson, Becker, Kanabec.

House Finch — Seen in 46 counties statewide. New nesting records in *Stearns* SWi, *Crow Wing* JS/MN; probable nesting in seven counties.

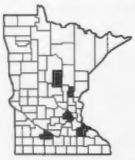


Red Crossbill — Only report: 7/29 St. Louis (near Ely) SS.

White-winged Crossbill — More reports than usual; many flocks seen throughout the northeast in July. Observed in Aitkin, St. Louis, Lake, Cook; plus a pair on 7/14–16 in Clay GKC.

Pine Siskin — Probable nesting in Polk, Clay, St. Louis; seen in seven additional northern counties plus 6/6 Rice, 6/16 Brown, 6/18–7/3 Olmsted.

American Goldfinch — Observed in 60 counties statewide. New nesting records in *Hennepin* BSe, *Goodhue* HP; probable nesting in Dakota, Freeborn.



Evening Grosbeak — Seen in Beltrami, Clearwater, Cass, Aitkin, St. Louis, Lake, Cook; migrants observed throughout July along North Shore of L. Superior.

House Sparrow — Observed in 55 counties throughout state; probable nesting in seven counties.

Eurasian Tree Sparrow, 27 June 1998, Rollag, Clay County. Photo by Dennis Martin.

EURASIAN TREE SPARROW — Second state record. Single bird first identified on 6/6 and observed through 7/2 at a feeder near Rollag in **Clay** PaS, mob.

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TW	Terry P. Wiens
SWi	Sylvia Winkelman
NWi	Ned Winters
DZ	Dave C. Zumeta
mob	many observers
HVA	Hiawatha Valley Audubon
MCBS	Minnesota County Biological Survey
MDNR	Minnesota Department of Natural Resources

Proceedings of the Minnesota Ornithological Records Committee

Kim R. Eckert, MORC Chairman

There was a meeting of the Comittee on 6 December 1998, and the agenda consisted of items related to the new edition of the Checklist of the Birds of Minnesota, published in January 1999.

Species for which there have been Acceptable records in eight of the past ten years were discussed and classified as either Regular or Casual. By majority vote, these were classified as follows:

Cinnamon Teal — Regular (no change). Gyrfalcon — Regular (changed from Casual). Iceland Gull — Regular (changed from Casual). Great Black-backed Gull — Regular (changed from Casual). Worm-eating Warbler — Regular (no change). Summer Tanager — Regular (no change). Smith's Longspur — Regular (no change).

Species for which there have been Acceptable records in three of the past ten years were discussed and classified as either Casual or Accidental. By majority vote, these were classified as follows:

White-faced Ibis — Casual (no change). King Rail — Casual (no change). Long-billed Curlew — Accidental (changed from Casual). Least Tern — Casual (no change). Rock Wren — Casual (no change). Green-tailed Towhee — Accidental (no change). Baird's Sparrow — Casual (no change). Lazuli Bunting — Casual (no change). Painted Bunting — Accidental (no change).

Including those species whose status changed automatically without a vote (i.e, seen in nine or ten of the past ten years), the following changed from Casual to Regular status:

Pacific Loon. Clark's Grebe. Gyrfalcon. Iceland Gull. Lesser Black-backed Gull. Great Black-backed Gull. Western Tanager.

There was also one Accidental species (Trumpeter Swan; see below) whose status changed to Regular.

Including those species whose status changed automatically without a vote (i.e, seen in seven, six, five or four of the past ten years):

Lark Bunting changed from Regular to Casual status; King Eider, Red Phalarope, and Prairie Warbler changed from Accidental to Casual status.

Including those species whose status changed automatically without a vote (i.e, seen in two or fewer of the past ten years), the following changed from Casual to Accidental status:

Brant, Long-billed Curlew, Western Sandpiper, Barn Owl, Rufous Hummingbird, Western Wood-Pewee, and Sage Thrasher.

The following species are new to the Checklist since the previous edition (December 1993); all but one (Spotted Tow-

hee) are Accidental in status:

White Ibis, Crested Caracara, Rock Ptarmigan, Curlew Sandpiper, Glaucous-winged Gull, Eurasian Collared-Dove, Calliope Hummingbird, Pygmy Nuthatch, Spotted Towhee (Regular; split from Eastern Towhee), and Bullock's Oriole (split from Baltimore Oriole; see below).

By majority vote (8–2), it was decided to list the Trumpeter Swan as a Regular species. In effect, this means the population of this species in Minnesota is now considered established and stable as a result of reintroductions in recent years.

By consensus, it was decided to include Clark's Grebe on the state's list of species with a confirmed breeding record; there had been reservations that hybridization with Western Grebe was involved. (Other species added to the list with confirmed breeding records since the previous Checklist are Tundra Swan and White-winged Crossbill.)

By unanimous votes, it was decided to list Eurasian Collared-Dove and Great-tailed Grackle as Accidental species with no "s" subscripts. The Collared-Dove decision was the result of considering recent photos of Eurasian Collared-Doves (see record #99–07 below) to be identifiable on their own. The decision on the grackle resulted from considering a 1993 audio tape of a Great-tailed Grackle (see ***The Loon*** 65:148–150) to be identifiable on its own. (Other Accidental species whose "s" subscripts were removed since the previous Checklist are Northern Wheatear, Townsend's Warbler, and Eurasian Tree-Sparrow.)

By majority vote (6–4), it was decided to list Black-bellied Whistling-Duck as an Accidental species with no "o" subscript. This decision resulted from the majority of the Committee considering a recent Whistling-Duck individual (see ***The Loon*** 70:244) to be more likely a naturally occurring vagrant than an escape from captivity.

By consensus, it was decided to maintain Extirpated status for Eskimo Curlew. There had been reservations about continuing to include this species on the Checklist given the ambiguity of the records, but recent research uncovered some previously unpublished records which were more definite. (An article detailing what is known of the Eskimo Curlew's occurrence in Minnesota will appear in a future issue of ***The Loon***.)

By consensus, it was decided to reinstate Bullock's Oriole on the Checklist as an Accidental species (as it had been before it had been lumped with Baltimore Oriole). There had been reservations that the only record (see ***The Loon*** 41:41–42) may have involved a hybrid, but examination of the photos of the individual revealed nothing anomalous about its plumage.

The following records were voted on by mail August–December 1998 and found to be Acceptable:

- Chipping Sparrow, December 1997, Detroit Lakes, Becker Co. (record #98–66, vote 5–2).
- Marsh Wren, 20 December 1997, Excelsior C.B.C., Hennepin Co. (location?) (record #98–67, vote 7–0).
- Forster's Tern, 28 March 1998, La Crescent, Houston Co. (record #98–68, vote 6–1).
- Scissor-tailed Flycatcher, 24 May 1998, near Cromwell, Carlton Co. (record #98–69, vote 6–1).
- Pacific Loon, 30 May 1998, Duluth, St. Louis Co. (record #98–70, vote 7–0).
- Painted Bunting, 2 June 1998, Shakopee, Scott Co. (record #98–71, vote 7–0).
- Clark's Grebe, 16 August 1998, Thielke L., Big Stone Co. (record #98–76, vote 7–0).
- Black-legged Kittiwake, 24–26 September 1998, Duluth, St. Louis Co. (record #98–82, vote 7–0).
- Sabine's Gull, 24 September 1998, Duluth, St. Louis Co. (record #98–83, vote 7–0).
- Scissor-tailed Flycatcher, 29 September 1998, Tofte, Cook Co. (record #98–84,

vote 7–0).

• Pacific Loon, 5–20 October 1998, Mille Lacs L., Mille Lacs Co. (record #98–85, vote 7–0).

• Pacific Loon, 11 October 1998, Garrison, Crow Wing Co. (record #98–86, vote 6–1).

• Red Phalarope, 23–24 October 1998, Crookston, Polk Co. (record #98–87, vote 7–0).

• Sprague's Pipit, 24–25 October 1998, Rothsay W.M.A., Wilkin Co. (record #98–88, vote 7–0, ***The Loon*** 71:53–54).

• Pacific Loon (3), 18 October 1998, Duluth, St. Louis Co. (record #98–89, vote 7–0).

• Black-headed Gull, 29 October 1998, Spirit L., Jackson Co. (record #98–91, vote 7–0).

• Pacific Loon, 31 October – November 1998, Two Harbors, Lake Co. (record #98–92, vote 7–0).

• Say's Phoebe, 3 September 1998, Mendota Heights, Dakota Co. (record #98–94, vote 7–0.

• Pacific Loon, 8 November 1998, L. Winnibigoshish, Itasca Co. (record #98–95, vote 7–0).

• Great Black-backed Gull, 9 November 1998, Minneapolis, Hennepin Co. (record #98–96, vote 7–0).

• *Plegadis*, sp., 18–25 October 1998, Lac Qui Parle W.M.A., Swift/Chippewa/Lac Qui Parle counties (record #98–97, vote 7–0).

• Iceland Gull, 14 November 1998, Duluth, St. Louis Co. (record #98–98, vote 7–0).

• Iceland Gull, 16 November 1998, Grand Marais, Cook Co. (record #98–99, vote 7–0).

The following records were voted on by mail August–December 1998 and found to be Unacceptable:

• Broad-tailed Hummingbird, 30 May 1998, Winona, Winona Co. (record #98–60, vote 0–10). Although this bird was photographed, most felt the quality of the photos is not sufficient to permit positive identification; one authority on hummingbirds (Nancy Newfield) also viewed the photos and felt they are identifiable as a Ruby-throated. The written description is also inconclusive since it only mentions a "bright rosy throat when it turned certain ways" and a "loud noise with its wings"; however, hummingbird throat colors vary depending on lighting angles, and all hummingbirds can make noise with their wings.

Clay-colored Sparrow, 18 November 1997, near Detroit Lakes, Becker Co. (record #98–65, vote 2–5). The description, apparently written from memory eight months after the sighting, does not consider or preclude the more likely possibility of Chipping Sparrow. No mention is made of the presence/absence of a malar stripe, the color of the lores, or the rump color, which are the primary features to separate these two species in fall/winter.

Say's Phoebe, 26 June 1998, Rice Lake N.W.R., Aitkin Co. (record #98–72, vote 2–5). The overall description is suggestive of this species, since it includes mention of a phoebe-like bird with orangish color on the underparts. However, the possibilities of juvenile Eastern Phoebe or Eastern Bluebird were apparently not considered, and the light conditions at the time of the identification are unclear. Also, the bird is described as having "one white wing bar and several bold white vertical stripes on upper tail coverts," and neither of these features is found on the Say's Phoebe.

Bullock's Oriole, 8–17 July 1998, Faribault, Rice Co. (record #98–73, vote 0–7). For a potential second state record of a relatively difficult species to identify (this was a female/immature oriole), it was unanimously felt a much more complete description was needed. The original description only mentions a greenish yellow head and chest, white underparts below the chest, a dark bill and two white wing bars. Parts of the documentation are also contradictory, since two versions were submitted, and it is unclear how soon

after the observation the bird was identified and when the description was written.

Mississippi Kite, 11 July 1998, Vadnais Heights, Ramsey Co. (record #98–74, vote 2–5). The identification of this flying bird was made by an observer who was driving 70 m.p.h. at the time, who had only a five-second view of the bird, and who was not using any optics. Accordingly, the description is very sketchy, and the majority felt that under these conditions a positive identification would be very difficult, if not impossible.

Mississippi Kite, 21 July 1998, Bloomington, Hennepin Co. (record #98–75, vote 2–5). The entire description only includes mention of a falcon-shaped bird slightly smaller than a Peregrine with a forked black tail. While these features are consistent with this species, the majority felt a more complete description was needed for such an unusual species.

Mississippi Kite, 17 August 1998, near Wyoming, Chisago Co. (location?) (record #98–77, vote 3–4). The incomplete description may be consistent with this species, but it includes no mention of the perched bird's wings, tail or back. Light conditions at the time were also unfavorable, since the observer was looking directly into the sun at the time.

Mississippi Kite (2), 12 June 1998, Winnebago Twp., Houston Co. (record #98–78, vote 0–7). The identification of these flying birds seems to be primarily based on wing shape and flight style, since the plumage description only includes mention of dark gray forewings, lighter hindwings, and an absence of "spots, highlights, windows, etc." on the wings. It was unanimously felt more complete documentation was needed for such an unusual sighting, especially considering two individuals were reported. It was also suggested the birds may have actually been Cooper's Hawks doing a courtship flight, during which this species' wing shape and flight style can look quite atypical.

Willow Flycatcher, 25–26 June 1998, near Tofte, Cook Co. (record #98–79, vote 1–6). The described vocalization heard is apparently consistent with this species, but the observer never actually saw the bird he heard singing, and he was unaware the species is unusual in this part of the state. A tape recording would have been helpful, since some verbal descriptions in field guides of Alder and Willow flycatchers calls are misleading, and since these species give atypical vocalizations which are unfamiliar to many observers.

Prairie Falcon, 18 July 1998, Waubun W.M.A., Mahnomen Co. (record #98–80, vote 3–4). The majority felt the description is too vague to preclude other species of raptors: there is no indication of why the bird was a falcon; the size is unclear, since nothing was present for comparison; mention of the "dark markings under the wings" is not specific enough to indicate whether this refers to the Prairie Falcon's dark axillaries and under wing coverts; and the rest of the description of the head, breast, back and tail could also fit a female kestrel, Merlin (*richardsoni* race) or immature Peregrine Falcon (*tundrius* race).

The efforts of all those observers who document their 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, Betsy Beneke (two records), Al Bolduc, Paul Budde, Mark Citsay, Kim Eckert (four records), Jesse Ellis, Barb Galambos, Anthony Hertzel (four records), Paul Jantscher, Jonathan Johnson, Jeanie Joppru, Fred Lesher, Sue Levy (two records), Jim Lind, Steve Morrison, Kay Shaw, Dory Spence, Karen Steinert, Forest Strnad, Peder Svingen (nine records), Tom Tustison.

Summary: 33 records voted on; 23 Acceptable (70%), 10 Unacceptable (30%).

8255 Congdon Blvd., Duluth, MN 55804.

BOOK REVIEWS

Skuas and Jaegers: A Guide to the Skuas and Jaegers of the World, by Klaus Malling Olsen and Hans Larsson (Yale University Press, New Haven and London, 1997), 192 pages, 100 b/w illustrations, 12 color plates, $35 cloth. Reviewed by Dave Benson.

One might wonder whether it's worth buying a bird book that covers only seven species in two genera, particularly when only three of the species have occurred in Minnesota, and only one of those is regular. Can it really be necessary to have that much information about so few species?

Perhaps not necessary, but certainly helpful. The identification of jaegers can be so complex that the present volume includes reference to a journal article entitled, "Is identification in the field hopeless?" It's not hopeless anymore, given the information available in this book.

Skuas and Jaegers was written by Klaus Malling Olsen, a Dane, and illustrated by Hans Larsson, a twenty-one-year-old Swede. Olsen wrote a landmark article on jaeger identification for *British Birds* in 1989, and this book represents an expansion of that project. The book covers "our" three jaegers, as well as Great Skua and South Polar Skua, which are rare, but possible, on the North American coasts, and two species that are endemic to the southern hemisphere.

As an example of the quantity of information provided, the section on Parasitic Jaeger (Arctic Skua) begins with nine pages on field identification, and *then* comes the section headed, "Detailed Description." The black-and-white photographs are interspersed in the text, which makes them much easier to use than if they were in a separate section. The color plates are in a separate section, but unfortunately, they are not cross-referenced with the pages in the species accounts–not an enormous problem in a book on seven species, but any book like this, that is bound to be used mostly as a reference book, should have relentless cross-referencing. The book concludes with a small section of color photos and a full bibliography.

The biggest advantage of this book is that we get the benefit of information from experienced birders who actually get to see a lot of jaegers. If one spends a lot of time in Duluth, one has the chance of seeing one or a few jaegers every year, and that is by no means guaranteed. That's as good as jaeger-watching gets in Minnesota, so it is difficult to develop the kind of experience necessary to make complex identifications, let alone accurate age determinations, which makes this sort of guide all the more welcome.

The photographs are outstanding, the plates are well-done and well-organized, and the text, in spite of the sheer quantity of detail, is quite readable. The authors' experience in the field shines through frequently. The book also includes considerable information about jaeger biology and conservation: for example, Pomarine Jaegers spend the summer eating lemmings, and they are much more likely than Parasitics to attack a gull directly, rather than simply stealing its food ("Pommies go for the player; Arctics [Parasitics] for the ball." p. 110). The authors highlight some of the interesting similarities between jaegers and raptors,

and they even hazard a few theories about why jaegers exhibit such a bewildering array of plumages.

Standing on the beach at Park Point in Duluth on a day with strong off-lake winds, while your hands ache from the cold, and the wind scours your glasses with sand, you might be happy for a brief glimpse of any jaeger. With the information available now, and with a good look, you might actually be able to tell what you're looking at. **427 N. 16th Ave. E., Duluth, MN 55812.**

Traveler's Guide to Wildlife in Minnesota, by Carrol L. Henderson, Andrea Lee Lambrecht, and others, 1998, published by the Minnesota Department of Natural Resources, 326 pages, wire-coil bound. Reviewed by Jim Williams.

Intent on filling our bookshelves with volumes essential to our enjoyment of birds and the outdoors in Minnesota, the Department of Natural Resources now gives us its latest can't-live-without book. Joining three previous books by Mr. Henderson, focused on attracting and feeding birds and other wild creatures, he and Andrea Lee Lambrecht and many other members of the DNR have created an extremely useful guide to finding wildlife throughout the state.

Quality of information, clarity, and ease of use are the currency we count to measure value in this kind of book, and this is a million-dollar effort.

The book opens with several pages of basic information on land, finding wildlife, binoculars, weather, and potential problems (bugs, bears, etc.). It briefly describes the state's varied landscapes. It takes us quickly through the seasons, giving an overview of what and when.

Next comes the section "Minnesota's Featured Species," where a dozen of our best known and most sought-after animals — ten of them birds — are given special discussion. If you can't find Bald Eagles, Peregrine Falcons, migrating hawks, winter owls, Sharp-tailed Grouse, Greater Prairie-Chickens, swans, and warblers after reading this book, well, there is little hope for you.

The heart of the book follows, 120 places to find wildlife — parks, wildlife management areas, national wildlife refuges, scientific and natural areas, waterfowl production areas, and some lands privately held, such as those of The Nature Conservancy. Each place is presented in a two-page spread including insightful text, photos, marvelous maps, and clear answers to the basic question: "How do I get there?"

If you seek additional information on a particular area, names, addresses, and telephone numbers are included for management personnel.

If you've been there and done that, this book still has value. Your maps aren't as good as these, your file information not this complete. And, beside, if you don't add this book to your library and buy copies for all of your friends and neighbors, you and they will be denied the pleasure of owning, holding and using a truly fine piece of work. **5239 Cranberry Lane, Webster, WI 54893.**

Everything You Need to Know About Birding and Backyard Bird Attraction, by Alan Pistorius, 1998, Houghton Mifflin Co., 275 pages, color photographs throughout. List softcover $20. Reviewed by Jim Williams.

Books that purport to tell you everything you need to know about anything to do with birds either are very, very long or a bit off the mark. However, consider this effort a useful survey of highlights, the hook for an interested beginner. Mr. Pistorius discusses feeders, Christmas counts, backyard habitat improvement possibilities, Big Days, nest boxes, water, migration, and, interestingly enough, breeding-bird atlas projects. He covers all of these topics in a clear conversational tone that includes personal experience and anecdotes, quite enough to give the book a very friendly demeanor.

This book would make a good gift for someone who has a birding interest that could be sharpened. **5239 Cranberry Lane, Webster, WI 54893.**

BIRDING BY HINDSIGHT

A Second Look at Songs (Part 4)

Kim R. Eckert

Now that spring is definitely here, what better time to present the fourth (and final?) Hindsight installment on bird vocalizations. (The previous three articles on this subject appeared in the last three Spring issues of ***The Loon*** — 68:62–66, 69:32–37, and 70:52–57.) While it is difficult to discuss on paper what birds have to say for themselves, it is hoped there is some value in these articles, since there is no greater favor a birder can do for himself or herself than to learn some songs and calls. This skill is of enormous benefit not only in identifying a wide range of birds, but also in simply finding them in the first place.

As was the case in the three earlier discussions of this subject, there would be little value here in repeating what one can hear on recordings and describing a species' primary song. Instead, the following comments will address some atypical vocalizations which might be unfamiliar to birders, and those which have the most potential for aural misidentifications.

A Chip off the Old Sparrow

Probably — no, make that definitely — the best place to begin learning bird songs is with the sparrows. Why? The best reason is that many birders find visual identification of sparrows relatively difficult, but their songs are almost always more distinctive than their plumages. For example, beginners often struggle with telling Song, Savannah and Lincoln's apart visually, while the songs of these three differ quite a bit from each other.

In addition, even birders who know how to distinguish sparrow plumages can't identify what they can't see, and sparrows usually seem to be lurking under cover. But when sparrows sing — even the more secretive ones like Henslow's, Le Conte's and Swamp — they tend to sit up in plain sight for the benefit of those birders who hear and recognize the song, locate the bird, and who can then study the bird at leisure.

Of course, it's not all that easy. While sparrow songs are typically easy enough to tell apart, their call notes or chips are not. With a little practice one can recognize that loud and sharp chip coming from the marsh as a Swamp Sparrow. The hollower "chimp" note of the Song Sparrow is pretty distinctive; so is the "ssssst" of the Fox Sparrow, which sounds longer and thinner than the "ssst" of the American Tree / Savannah / White-throated sparrows. But I admit I have trouble distinguishing the call notes of these last three sparrows from each other — and, for all I can tell, pretty much every Minnesota sparrow can say "ssst" if

it wants to.

I know the good old Song Sparrow does: more than once have I heard a "ssst" coming from a thicket which I assumed was going to be a White-throated, only to have a Song Sparrow emerge into view. I even once heard a Song Sparrow give a loud "squeak!" call note — if I had not seen it, I probably would have marked down a heard Rose-breasted Grosbeak on the day's list.

More importantly, the Song Sparrow even fails at times to deliver its familiar and ubiquitous song: instead, it comes out with an atypical song which is longer, more complex, and hard to describe other than to say it doesn't sound like a Song Sparrow. I have noticed this especially in late summer or early fall and suspect it is coming from a juvenile who is just learning to sing and practicing — and who definitely needs the practice!

As mentioned in the third part of this series on songs (***The Loon*** 70:52–57), the sparrow songs with the most potential for confusion involve the trills of the Chipping and Swamp sparrows and Dark-eyed Juncos — and how similar they can be to the songs of the Pine, Orange-crowned, Palm, Worm-eating and Wilson's warblers. There is no need here to repeat the similarities and differences of all these trills, but the reader does need to refer to that article before claiming to have mastered the songs of those two sparrows and the junco.

Even more disconcerting is that more than one observer has heard Chipping Sparrows give a slow series of buzzes just like a Clay-colored, while others have heard Clay-coloreds sound the same as a Chipping. In addition, I have sometimes heard Dark-eyed Juncos with atypical songs: I have field notes on one which sounded somewhat like a Clay-colored Sparrow, and on another junco with a song vaguely similar to a Blue-winged Warbler's.

On occasion, I have heard another sparrow which could have been mistaken for a Clay-colored. It seems the Harris's Sparrow often varies its slow series of clear whistles by mixing some buzzes into its song. When it does so, the song then resembles that of the White-crowned Sparrow, and sometimes it can also sound quite like a Clay-colored when all the whistled notes are replaced by buzzes.

Two final caveats on sparrow songs. First, be sure to take note of the Sprague's Pipit comment in the second installment on song identification (***The Loon*** 69:32–37): the Grasshopper Sparrow's long, spiraling alternate song, which is unfamiliar to many birders, bears enough of a similarity to the pipit's aerial song to create potential confusion. And second, when you're out listening for that highly local and highly sought Henslow's Sparrow, beware of distant Eastern Meadowlark call notes and of the end of the Savannah Sparrow's song: both strongly resemble the Henslow's "tslick".

Long (and Not-so-long) spurs

The four longspurs and Snow Bunting are essentially sparrows since they're all classified in the family *Emberizidae*, so you're not quite done with your sparrow lesson. Songs are not the problem here, since four of these five species don't breed — or normally sing — anywhere near Minnesota, and the Chestnut-collared's beautiful little meadowlark-like song is typically heard only within a few square miles near Felton in Clay County. But Lapland and Smith's longspurs and Snow Buntings are regularly occurring migrants, so a few comments on their call notes might be helpful, especially considering these birds are often detected only by their call notes as they fly high overhead.

First of all, both Lapland Longspur and Snow Bunting give a plain whistled "tew" call note, usually in flight, and to my ear this note sounds the same in both species. (By the way, none of the other three longspurs ever says "tew" to my knowledge.) These two species also have a rattle or twitter flight call, but these are noticeably different: the longspur's call is

a drier and relatively unmusical rattle, unlike the bunting's higher-pitched and more musical twittering.

More challenging is to learn the difference between the rattles of the Smith's and Lapland longspurs, but it is definitely worth the effort considering how highly sought the Smith's is. With practice (and probably your best opportunity for this is in mid-October at Rothsay W.M.A. in Wilkin County), you'll be able to hear how the Smith's rattle is more of a ticking: it's especially slower, usually longer in duration, and in a way lower-pitched than the Lapland's somewhat cricket-like rattle.

Speaking of rattles, both the Chestnut-collared and McCown's also have one, but I haven't paid enough attention to these two to say whether they sound more like a Lapland or a Smith's. But if you're ever at Felton listening to Chestnut-collareds, note that they also give a note which has been transcribed as "queedle". And, if you are ever lucky enough to find the third Minnesota record in this century of the McCown's, try to hear its curious metallic "woink" call note. (By the way, you still have another year and a half to come up with that third record: contrary to popular belief, this century doesn't end until the end of next year.)

One final comment on the Lapland Longspur. Besides its "tew" and rattle, it often gives another call note which is harder to describe and sounds somewhat similar to a Horned Lark or American Pipit. And a final comment on the Snow Bunting. In addition to its "tew", it sometimes gives a clear single buzz in flight. This call is distinctive but not quite unique: the Dickcissel actually has a quite similar flight note, which has been likened to the buzz of an electric shaver.

Icterids, With the Accent on "Ick"

I suppose if blackbirds are all you think of when you come to the family group *Icteridae* in your bird book, perhaps "ick" might be an appropriate reaction. After all, who has any use for grackles or cowbirds? Yet, keep in mind this family also includes such fancier birds as Bobolinks, meadowlarks and orioles — and, even if it didn't, there are still some pretty cool blackbirds out there, along with some grackle and cowbird species which listers have been known to pursue.

Let's begin, then, with the Bobolink and a misconception many birders have with its "ink" (not "ick") call note. While this metallic note is distinctive once you're used to it and is a good way to locate a Bobolink migrating overhead, some caution is in order since I hesitate to consider this note all that unique. American Goldfinches, Baltimore Orioles and even Rose-breasted Grosbeaks can give very similar calls which I would also transcribe as "ink". Also note that when the Rose-breasted Grosbeak does this call (and they do it a lot), it catches many birders off guard: that truly unique and easily recognized grosbeak "squeak!", mentioned earlier in this article, is only part of its repertoire.

More importantly, perhaps, is the issue of meadowlark vocalizations, since these are often the only safe way to determine whether or not you've got an Eastern or Western. As far as their primary territorial songs go, the difference between the two species is obvious enough, but at times there are meadowlarks (hybrids?) which sing intermediate songs and might defy identification.

Meadowlark call notes are also worth paying attention to. The most typical call of the Eastern is a loud and raspy "dzert" (which at a distance can sound like a Henslow's Sparrow); the Western's corresponding call is a simple but full-toned "chuck". As far as I know, these two notes are respectively diagnostic, with one meadowlark "never" giving the other's call. However, both species also give similar rattling flight calls, which to my ear are not separable. And there is yet another meadowlark call note, which I describe as a soft "wick" or "wink": I know Westerns do this for sure, but so far I'm unsure whether or not Easterns do

(I suspect they do, however).

Moving on to those icky blackbirds, I'm fond of telling other birders how the Rusty Blackbird happens to be one of my favorite birds of any family. This is partly due to its name, which is appropriate for two reasons (most birds seem to have no useful or readily apparent reason for their names!). With this blackbird the "Rusty" part applies both to its fall/winter plumage and to its song, which consists of a high-pitched "rusty-hinge" note preceded by a softer chattering series. Be aware, however, that the Brewer's Blackbird ends its song with a very similar note: the difference is this blackbird's song starts with a single "kshh" note rather than a chatter.

With practice, one can typically distinguish both the Rusty's and the Brewer's call notes from those of the other blackbirds. The Rusty's metallic "chack" is often noticeably higher-pitched than a grackle's or Red-winged's note; the Brewer's call note is even more recognizable: it's a distinctively short and very dry "chk".

The Winter Finches of Our Discontent

It seems I had also made an allusion to the same John Steinbeck novel in an earlier article in this Hindsight series, but, considering I'm a former English major, there is this irresistible urge to put my college education to some sort of use here. And indeed there is undoubtedly some discontent and frustration encountered as birders struggle with the difficulties of learning the songs and calls of those so-called winter finches.

One species' vocalizations which certainly involve more than the usual amount of confusion are those of the Purple Finch. While its most distinctive call note is an easily recognized metallic "tink", this finch also gives a two- or three-syllabled whistle which sounds very much like a Pine Grosbeak. I have been aware of this call most often in September and October, and I suspect it may be the cause of some erroneous reports of earlier-than-normal and heard-only Pine Grosbeaks.

Another potentially confusing Purple Finch call note was mentioned in the second article in this series on songs (***The Loon*** 69:32–37). This call sounds a lot like a Red-eyed Vireo, and it probably has resulted in some incorrect reports of that vireo being around earlier or later than it should be.

The warbling and rambling song of the Purple Finch is a problem which even causes discontent on my part. I have to admit I cannot always tell if the song I'm hearing is a Purple or House Finch. Usually the latter species ends its song with a diagnostic down-slurred "cheew", but when it doesn't do this I'm often left guessing. Usually, however, the Purple's song seems longer, higher-pitched, richer and more complex than the House Finch's.

It also helps if the House Finch starts giving some simple call notes. While there are some notes which both these finches seem to give, I have never heard a House Finch give the Purple's diagnostic "tink" note, and typically its calls sound much like a House Sparrow's. House Finches, however, also give "jib" or "jib jib" calls which could easily mislead one into thinking there are some Red Crossbills around.

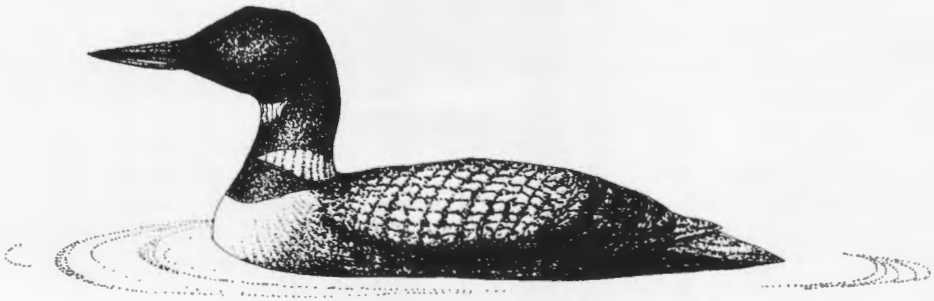
And this definitely adds to the difficulties birders have as they work on trying to distinguish the calls of the two crossbills. While the soft redpoll-like chattering of the White-winged is something not heard from the Red Crossbill, the White-winged also has single notes which birders who have seen lots of crossbills still have trouble telling from the Red's calls. The key is that this White-winged note has a rising inflection lacking in the Red's repertoire: to my ear, it is a querying "wink?", as opposed to the flatter "jib" or "jeep" of the Red Crossbill.

In case some readers still think it is too much of a stretch to use the word discontent to introduce this section, just wait until the Red Crossbill gets split into a half dozen or so separate species! These splits are more than just a rumor,

since for years some researchers have proposed separating these crossbills according to range, habitat/conifer preference and call notes. The hint here should be obvious: start carefully listening to — and tape recording! — any Red Crossbills you hear from now on. I have heard what sounds like three distinct Red Crossbill call notes — and species? — in Minnesota.

A few final, fascinating and frustrating facts on finches follow. (Alliteration is something else I learned as an English major). First and foremost: be aware of how varied the vocalizations of a flock of Pine Siskins can be and how they might lead you into a misidentification. When siskins sing vigorously, they include notes which clearly sound like they are coming from Boreal Chickadees, Evening Grosbeaks, crossbills, redpolls or goldfinches — or all of the above nearly simultaneously. On more than one occasion I momentarily thought I was hearing one of these birds, only to realize it was just siskins.

Secondly, after having watched and listened to American Goldfinches for decades, just last summer I discovered a call note of this familiar species which I somehow had never noticed before. This was in Newfoundland, where I have been many times before, and twice I heard what I was sure were American Pipits flying overhead — and later they proved to be goldfinches. Discontent, indeed! **8255 Congdon Blvd., Duluth, MN 55804.**



NOTES OF INTEREST

BRAMBLING IN ST. LOUIS COUNTY — On 23 October 1998 at 8:30 A.M. I was watching the feeders outside my kitchen window when an unusual bird landed on the ground beneath the sunflower feeder. It was junco-sized and had a heavy finch-type bill. I called Nancy Jackson, who came right over and we both observed the bird from the window, about 15 feet from the feeder. We both used binoculars and had great looks in good light.

Neither of us could identify the bird, so I made a quick sketch and noted all the field marks, as follows: The upper breast was a bright orange, extending into the upper part of the wing. The belly and under-tail coverts were white. The head was mottled black. When seen from the back, there were darker black stripes running above the eye and all the way across the top of each side of the head to the nape. With 10X binoculars, it was easy to see that the feathers were

black, edged with a grayish-brown. The lower back and rump were white. The tail and wings were mostly black with some grayish-brown on the edges of the feathers. There was one white wing bar. The bill was yellow-gold at the base with some black at the tip. The legs were dark.

After checking the National Geographic field guide, I was still not able to identify it. I rushed to get to work at the library by 10:00 A.M., where I started checking other field guides, and when I opened the Peterson *Field Guide to the Birds of Britain and Europe*, and turned to the finches, it jumped right out at me. It was a Brambling! After checking the MOU home page and finding that there were indeed three previous records of Brambling in Minnesota, I started telephoning people in Duluth. After calling Kim Eckert, Dave Benson, and Mike Hendrickson and getting their answering machines, I finally reached Cathy Nelson, who left immediately. A short time later, I had a call from Anthony Hertzel, to whom I gave directions. He met me at the library and about 2:30 P.M., and he and Cathy both had good looks at the bird.

Brambling, 24 October 1998, Hoyt Lakes, St. Louis County. Photo by Anthony Hertzel.

The Brambling was still there about 3:45 P.M., when I returned to work. There was no weather coming in and plenty of feeders in the neighborhood. The area is heavily wooded with little disturbance. I felt sure it would stay overnight. However, the next morning, it could not be relocated. This was the fourth time a Brambling has been recorded in Minnesota. **Audrey Evers, 502 Partridge Rd., Hoyt Lakes, MN 55750.**

PHILADELPHIA VIREOS BREEDING AT TETTEGOUCHE STATE PARK — During the summer of 1998, I detected an unexpected number of Philadelphia Vireos at Tettegouche State Park in Lake County. I was conducting a park-wide survey for singing male Black-throated Blue Warblers and saw at least 12 different singing Philadelphia Vireos. Because the focus of the research was on Black-throated Blues, I did not attempt to see each vireo that I heard. Nonetheless, on one day in particular, 28 May, I made an effort to see each "odd-sounding" vireo and managed to locate five different singing males in about three hours. That same day, I found a Philadelphia Vireo gathering small strips of bark off a dead aspen, and on 11 June, I found a pair building a nest in a paper birch.

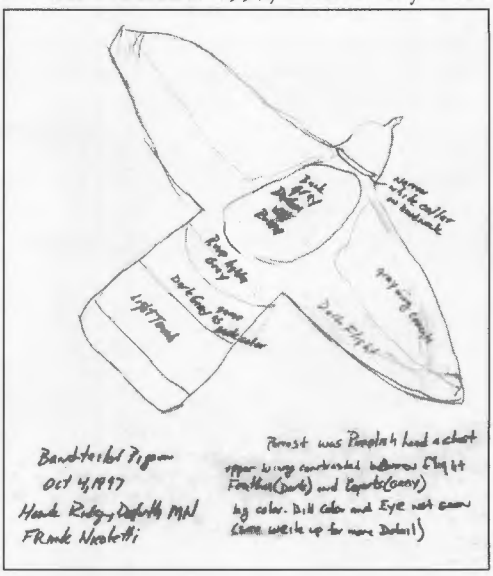
The nearly completed nest was 14 m high and located in a stand of almost pure birch. Unfortunately, the vireo nest was never checked again and no other vireo nests were located. Although the vireos were scattered throughout Tettegouche, the highest concentration seemed to be in the western portion of the park, south of Bean and Bear Lakes. No quantitative habitat measurements were made, but most of the vireos were found in stands of paper birch, sometimes mixed with aspen and sugar maple, typically situated in low wet spots within hilly terrain. During the summer months, Philadelphia Vireos usually can be found in very small numbers in northeastern

Minnesota, but I suspect Tettegouche State Park may actually have a substantial breeding population. **Jim Lind, 917 – 9th Ave., Two Harbors, MN 55616.**

BAND-TAILED PIGEON AT HAWK RIDGE — On 4 October 1997, I was at my usual post counting raptors at Hawk Ridge when I saw a larger pigeon approaching at eye-level from about 100 yards away. I identified this as a Band-tailed Pigeon and called out to nearby birders to take notice.

The field marks I observed were: narrow white band on hind neck, indicating the bird was an adult; purplish head and chest were both observed as the bird came closer; the neck was dark gray, and the rump slightly lighter; the tail and wing coverts were gray, contrasting with blackish primaries and secondaries. I did not see the typical yellow bill with its distinctive black tip.

This bird was also seen and documented by Kim Eckert. **Frank Nicoletti, 3128 Valet, Duluth MN 55804.**



LITTLE BLUE HERON IN BELTRAMI COUNTY — On 7 October 1998, during my lunch hour, I made one of my weekly visits to the partly paved, abandoned rail line/bike trail on the east side of Lake Bemidji, Beltrami County. After the heavy rains of 5 October and drizzle on the 6th, the skies began to clear, but the weather was still quite cool with a strong westerly wind. Few birds were present. Directly out from the old wooden railroad bridge which crosses the Mississippi River, however, I spotted a small white heron hunkered down against the strong wind. When a Ring-billed Gull alighted next to the bird, it was obvious that the bird was not a Great Egret, as the gull was as long from head to tail as the body of the heron.

At first, I thought it might be a Cattle Egret, but then it stretched its neck out, which was far too long for a Cattle Egret. Also, the bird turned so that I could see a long darkish bill, which also precluded it being a Cattle Egret. Since it was a couple hundred yards out on a point, it was difficult to see bill and leg color, so I had to retrieve my scope. When I returned about 15 minutes later, now about 1:00 P.M., the bird had moved to a sand bar much closer to the bridge and was now only 30 or so yards away. With the scope, I was able to observe a small white heron or egret with yellow-green legs and feet, a long bluish bill with a dark tip (about the outer third). The bill appeared twice the length of the gulls' bills nearby. The bluish color on the bill extended onto the head, up to the eye. The bill also was somewhat decurved. The eyes were yellowish. The legs lacked any black or yellow on the lores, as would be found in an immature Snowy Egret.

When I got my scope, I also grabbed my *National Geographic Field Guide*. Thus, I was able to consult the guide while watching the bird. The bird was clearly a first-

year or summer-hatched Little Blue Heron. The only feature which I did not observe as illustrated in the field guide were any dark tips to the primaries, as the bird appeared all white on the feathered areas except for the bluish lores. However, the photos in the Audubon Society *Master Guide to Birding* and Kenn Kaufman's article on Little Blue Heron identification in *American Birds* 45:33–333, show how the long white tertials can completely obscure the dark primary tips, so that the feathering appears all white, as in a Snowy Egret. The Dewenters who observed the bird later, noted dark primary tips.

I returned about 5:00 P.M. and the bird was still present. The weather had warmed and the bird was much more active. It appeared healthy and was actively feeding on minnows, wading out into the water off a reedy point. Despite searching by several others the next day, the bird was not seen again. This is the first report of a Little Blue Heron for Beltrami County and the first record for north central Minnesota. According to Janssen's *Birds in Minnesota* (1986) and ***The Loon***, this is also the latest date for the state, as the previous late date was 4 October. **Douglas P. Johnson, 7203 Tall Pines Rd. NE, Bemidji, MN 56601.**

BALD EAGLE PREYS ON HERRING GULL — At approximately 8:15 A.M. on 29 July 1998, Erik Acker and I were canoeing on Kekekabic Lake when we observed an adult Bald Eagle kill an immature Herring Gull. The young gull apparently was not mature enough to fly and escape the attack.

Initially, three adult gulls were harassing an eagle while it flew in the vicinity of their nest and rearing area, a small rock island off the north shore in the eastern part of the lake. The eagle, perhaps to escape the adult gulls and to rest, perched on a dead pine about 100 feet over the water on a cliff north of the small island. The gulls continued to harass the eagle on its perch. After about five minutes, the eagle leaped from its perch and made a long, fast dive toward the island and the immature gull, undeterred by the pursuing gulls. With its talons, the eagle held the gull against the ledge rock and rapidly plucked many of the gull's feathers as it prepared to eat the bird. As we canoed by the island, the eagle began flying off with the bird dangling from the talons of its left leg. The eagle, however, dropped the gull in the water while the adult gulls, flying above, continued to harass and cry out. **Gary D. Siesennop, 262 County Rd. 6, Grand Marais, MN 55604.**

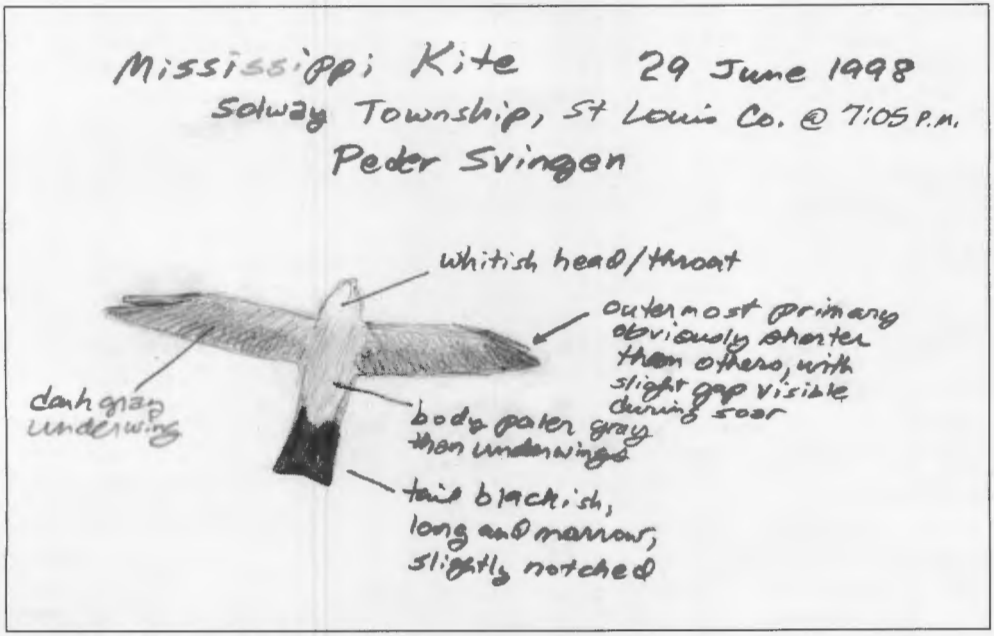
RED-SHAFTED/YELLOW-SHAFTED FLICKER INTERGRADE — On 2 October 1998, having just finished with business in Onamia, I decided to take the short drive up to Mille Lacs Lake to see what might be on the lake on this beautiful warm sunny day. Taking Mille Lacs County Road 26, I stopped at the boat landing on Lake Shakopee to check out the waterfowl. As I drove in I startled a Northern Flicker feeding on the ground in the grass by the landing. It surprised me when it flashed salmon red wing and tail linings. I had never seen a "Red-shafted" Flicker *(Colaptes auratus cafer)* before. I also had never realized that the tail linings were also colored.

After studying the bird for several minutes, I checked my field guide and realized that I had an intergrade between the "Red-shafted" and "Yellow-shafted" *(C. auratus auratus)* subspecies. While the wing and tail linings were a rich pink/red of the "Red-shafted" group, the head more closely resembled a "Yellow-shafted". The head and nape were gray while the face was buffy. The red crescent on the nape was about half the width of the usual "Yellow-shafted" form and was somewhat asymmetric and

irregular. The bird was female and lacked a mustache or malar stripe. Other more subtle differences between the two groups include back and breast coloring (grayer in the "Red-shafted") and the amount of black on the tail tip and chest patch (slightly more in the "Red-shafted"). Lacking this information at the time of observation, these subtle differences were not observed. A good article on the variation produced by the interbreeding of Northern Flicker subgroups is "A Flicker of Recognition" by Kenn Kaufman in *American Birds*, 45:1172 (Winter, 1991). **Steve Weston, 1205 Carlson Lake Lane, Eagan, MN 55123.**

A SUMMER RECORD OF THE MISSISSIPPI KITE IN NORTHEASTERN MINNESOTA

— At approximately 7:05 P.M. on 29 June 1998, I spotted an adult Mississippi Kite (*Ictinia mississippiensis*) in a lilting soar over Highway 194 in Solway Township, near its intersection with St. Louis County Road 859. I immediately recognized it as a kite, pulled over and watched it through binoculars for about 20 seconds before it glided north just above tree top level and disappeared. It never flapped its wings during the observation and rarely banked but when it did so, its whitish secondaries were visible on the upper wing surface. The rest of the upperparts except for its whitish head appeared dark. From below, its wings had the characteristic shape of this species, long and narrow with pointed tips as shown in the sketch. Its outermost primary was obviously shorter than the others. The underwings were dark gray with the flight feathers slightly darker than the wing linings. Its body was paler than the underwings, gray but becoming whitish on the throat. I had excellent views of its long and narrow tail, which appeared entirely blackish and slightly notched (see sketch). Although I drove several roads in this vicinity until 7:30 P.M. it could not be relocated. There have been no acceptable summer records in Minnesota prior to 1998. This species has recently nested in central Iowa



Mississippi Kite sketch by Peder Svingen.

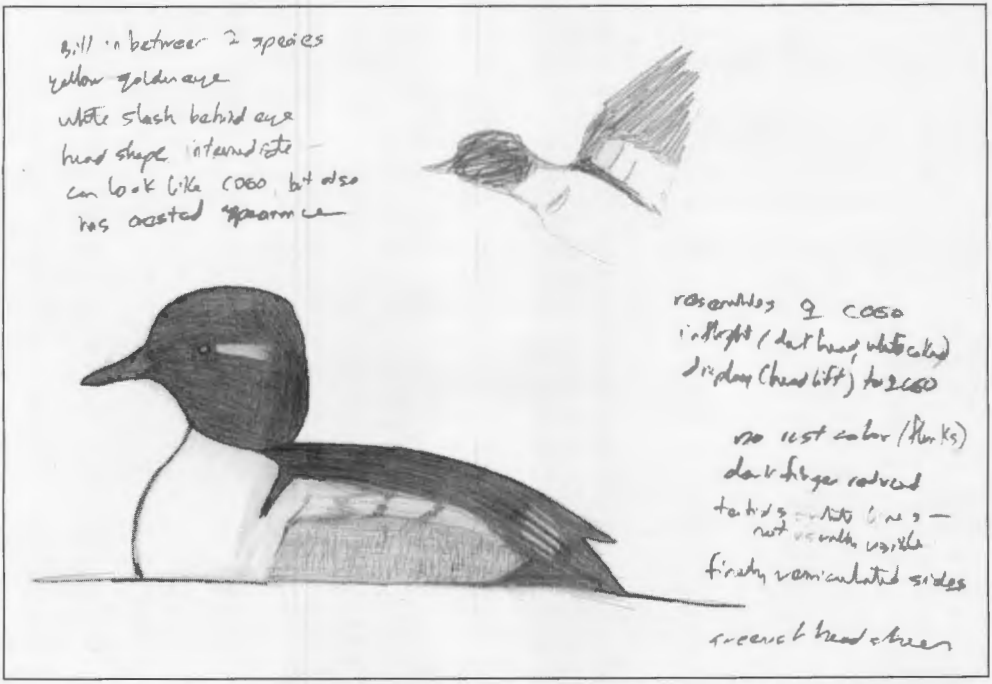
(Kent, T. H., and J. J. Dinsmore, 1996, Birds in Iowa, pp. 105–106) and is likely to do so in Minnesota if recent trends continue. An interesting 1993 article by D. S. Evered and L. R. Messick (Spring extralimital Mississippi Kites: chance or necessity? *Birders Journal* 2:81–89) reviewed these trends and also showed that the vast majority of spring extralimital records in the Midwest were from late May and early June, with a smattering of records into the first week of July. **Peder Svingen, 2602 E. Fourth St., Duluth, MN 55812–1533.**

EURASIAN COLLARED-DOVE NESTING ATTEMPT — In a phone call with Bob Janssen, he suggested that I send the information I have on the attempted nesting of a pair of Eurasian Collared-Doves in Ortonville. I searched for the dove on 26 May 1998 in Ortonville and was successful in the morning. The bird was drinking at a puddle one block west of the post office. The following morning, I found the bird again in the same spot.

On 29 May at about 3:00 P.M., I saw the dove flying into a dead tree with nesting material. This bird was bringing the material to another dove that was in the partially completed nest. This was on a dead-end street one block south and one block west of the post office. At 6:00 P.M. and at 9:30 P.M., one bird was on the nest and the other was three to six feet away, fending off numerous Common Grackles. On 30 May at 8:30 and 9:00 A.M., and also at 1:30 P.M., one dove was on the nest and the other was bringing nesting materials. I timed the round-trip of the dove bringing materials. It ranged from one and a half to two and a half minutes. I don't believe that the birds ever swapped roles during the nest-building. At 3:00 and 4:30 P.M., one dove was on the nest and the other was about six feet away, preening in the nest tree. On 31 May, Mark Citsay, Connie Osbeck, my wife Linda, and I watched the birds for about 45 minutes. On 2 June and again on 6 June, I made several futile tries at finding the doves, but to no end. The nest is still intact with no sign of disturbance. On 3 June, four or five MOU members came out but I think they were unsuccessful at finding the birds. **Doug Buri, 902 S. 7th St., Milbank, SD 57252-3020.**

COMMON GOLDENEYE X HOODED MERGANSER HYBRIDS — While watching waterfowl along the Mississippi River on 26 March 1998, I observed two apparent Common Goldeneye X Hooded Merganser hybrids at two different locations.

The first individual was seen near the mouth of the Whitewater River along Hwy 61 near the junction with Wabasha County Road 29. This individual was apparently a male, since it showed a narrow, rectangular white slash behind the eye; otherwise, the head was dark with a greenish iridescence. The head and bill shape were intermediate between the two species; the head often showed the puffy appearance of a Common Goldeneye with a rear extension at the bottom, but also had a slightly crested appearance reminiscent of a Hooded Merganser. The eye was golden yellow. The breast was white, and the flanks were heavily vermiculated with fine, dark, horizontal bars as in a male Hooded Merganser, but no rust color was present. There was a dark finger extending downward from the dark back between the breast and the flanks, reduced from a typical Hooded Merganser. Also indicative of Hooded Merganser were long, white lines along the center of the tertials, but these were not always visible (depending on feather arrangement). There was extensive white on the folded wing, dividing the dark back and the vermiculated flanks, but the bird was not seen well enough in flight to ascertain the exact wing pattern.



Probable hybrid Common Goldeneye X Hooded Merganser drawing by Karl Bardon.

The second individual was seen at Verchota Landing along Prairie Island Road, Winona County. This bird was photographed. It was similar to the first individual, with an intermediate head and bill shape, but there was no white mark behind the eye and no iridescence. The flanks were similarly vermiculated, but a definite rufous cast was present. Oddly, a rufous tint was also seen on the back of the head. As with the first individual, a reduced dark finger was present between the white breast and the flanks, and an additional white comma separated the dark finger from the gray flanks. This bird was probably a male in first-spring plumage.

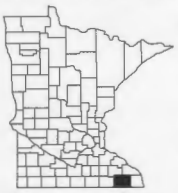
There have been two previous reports in Minnesota of birds believed to be this hybrid: 15 December 1979 at the Blue Lake treatment plant, Scott Co. (***The Loon*** 52:37) and 31 March 1994 near Fergus Falls, Otter Tail Co. (***The Loon*** 66:103–4). **Karl Bardon, 13073 Hastings St. NE, Blaine, MN 55449.**

HOUSE FINCH RAISES TWO BROODS IN SAME NEST — Robert Holtz reported in ***The Loon*** (Vol. 70, pp. 119) an instance of a House Finch using a nest twice in 1997. I found a similar occurrence in 1998. On 17 April, a female accompanied by a male was building a nest on the electric wire connector above my neighbor's rear door, close under the eaves. A few days later, she was incubating.

The male was never far away, and often singing, and sometimes joining her at the nest. Apparently, whenever she left the nest, they flew to my bird feeders. Both of them wore leg bands, which assumedly were my bands. The four young left the nest on about 25 May, and the family seemed to spend most of their time around my yard and garden. On 22 June, a female, likely the same one, was back upon the nest, which I believe had a new

lining. On 14 July, there were four large young in the nest. Soon thereafter, the whole family was frequenting my feeders. **William H. Longley, 532 W. Broadway, Forest Lake, MN 55025.**

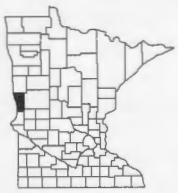
BROWN-HEADED COWBIRD FLUSHES SCARLET TANAGER FROM NEST — On 1 June 1997, in the northeast corner of Fillmore County, I observed strange behavior between a female Scarlet Tanager and a small group of Brown-headed Cowbirds.



I was working as a nest searcher, helping to gather data for a graduate student from the University of Minnesota for the summer. I was monitoring this particular Scarlet Tanager nest in the mid-morning on 1 June and had decided not to flush the female, who was on the nest when I arrived. I knew this bird had just finished laying her eggs or was just starting to incubate; I had found the nest early in the building stage and had monitored it regularly every three days. After sitting down about 15 meters from the nest, I heard Brown-headed Cowbirds in the canopy nearby. I wanted to observe the tanager for a few minutes in order to determine if she was laying or incubating. A few minutes after I sat down, I saw a female cowbird fly down from the canopy to the tanager nest and hit the female tanager. The female cowbird was followed by two others that I believe were males of the same species. The male tanager flew over to the nest and was very agitated, chick-burring constantly. The female tanager left the nest and flew to a tree nearby. The female cowbird immediately left the nest area and flew to the canopy about ten meters away. I left the area quickly, hoping the tanagers were not disturbed further by my distant presence.

This particular nest was low enough that with a pole and mirror, I was able to see into it. At least two cowbird chicks and at least one tanager chick did eventually fledge from the nest. One Scarlet Tanager egg was found on the ground near the nest after the nest was empty. **Jenny Rukavina, 7531 Brighton St., Duluth, MN 55804.**

A MIGRANT SPRAGUE'S PIPIT IN LATE OCTOBER — On 24 October 1998, my Minnesota Birding Weekends group found an unexpected Sprague's Pipit *(Anthus spragueii)* in a mown hayfield adjacent to Rothsay Wildlife Management Area in Wilkin County. The bird was flushed inadvertently from the grass by part of the group while we were looking for longspurs and other grasslands birds, and it flew a short distance before dropping back to the ground and out of sight. After a brief search, however, we relocated it walking through the grass, and I was able to see it was a Sprague's Pipit, a species I have seen several times on its breeding grounds in Manitoba and North Dakota and in winter in South Texas. Eventually, the entire group of 23 birders was rounded up, we were able to relocate and form a circle around the pipit, and for the next 20 minutes or so we were able to study its field marks at distances as close as 18–20 feet.



In typical Sprague's Pipit fashion, the bird often "froze" in the two- to four-inch-high grass and was then difficult to see, but it would eventually "crane" its neck up and out of the grass cover and walk around to provide us with excellent views. It also flushed a few more times and flew relatively short distances, again in typical Sprague's fashion: i.e., in a hesitating, "stair-step" flight before abruptly dropping back into the grass. In flight, we could easily see its bold white outer tail feathers, but we never heard it give its distinctively loud and sharp "squeet!" call note; however, on 25 October, Peder Svingen managed to relocate the pipit, and he heard it give what he described as "a loud, squealing, two-syllable 'squeep-squeep' call as it flushed".

Overall, the pipit was about the same size as a Horned Lark or American Pipit. It

had a relatively "thick" bill: not as thick as a sparrow's, but not as thin as on an American Pipit. The bill was two-toned: mostly pale with a dark culmen. The head looked relatively small, the crown was narrowly streaked, and the black eye appeared conspicuous and "beady" on the mostly plain and unmarked face. There were no dark markings on the ear coverts, in the malar area or through the eye. It did have, however, a pale yellowish wash on the ear coverts and a whitish eye ring — this eye ring was more noticeable than on most other Sprague's Pipits I have seen. I was unable to see any yellow on the lores which Sprague's often have. The rest of the body was generally grayish buff overall: its upperparts were streaked, and its underparts unstreaked except for a distinct "necklace" of narrow black streaks across the breast. Because of the grass cover, none of us could see its leg color, and the bird did not pump its tail in the manner of an American Pipit.

This sighting is significant for a few reasons. First, the species is now only Casual in the state, with almost all recent records during spring or summer of birds in potential breeding areas. Second, in fall migration the species might be better described as Accidental, and this represents the latest date on record (previous late date apparently was 15 October). Finally, the observers had an unusual and excellent opportunity to study the little-known plumage features of this pipit, which is not accurately portrayed in any of the popular field guides. **Kim Eckert, 8255 Congdon Blvd., Duluth, MN 55804.**

EASTERN PHOEBE NEST NOT NEAR WATER —To quote A. C. Bent in United States National Museum Bulletin 179, *Life Histories of North American Flycatchers*, "We often find phoebes near water." I find this to be a gross understatement. "Almost always found near fresh, running water, especially when breeding..." is more like it, as expressed in *The Audubon Society Master Guide to Birds*. So that is why I found it strange to hear the persistent "phoebe" call in my yard beginning on 9 April 1998. I live five city blocks from the lake and several city blocks from a pond, and I'm quite sure I had never before in 38 years noticed a phoebe anywhere near my yard or anywhere far from water. On 11 April, a pair was here. Then on 17 April, one was carrying beakfuls of mud and dried grasses from my garden around the neighbors' house and up under the eaves to start a nest on a brace. On 23 April, the nest appeared to be completed, but after the 26th only the male was seen and heard — never more than one bird at any time. The bird was last recorded on 31 May. Of course, I don't know what happened to the female, but I rather think that phoebes would have difficulty feeding a nest full of young in this location. **William H. Longley, 532 W. Broadway, Forest Lake, MN 55025.**

GLAUCOUS X HERRING GULL HYBRID IN THE TWIN CITIES — An apparent Glaucous Gull X Herring Gull hybrid (Nelson's Gull) in first-winter plumage was located in Burnsville, Dakota Co. on the morning of 22 December 1998. This same individual was independently identified at Lake Harriet, Hennepin Co. later that same day by Steve Carlson. It was seen again in Burnsville on 24 December, and it was seen at Lakes Calhoun and Harriet from 24–26 December by Paul Budde. The bird was last seen at Black Dog Lake on 28 December 1998.

The following description was reviewed by both Steve and Paul. The bill was pinkish with a sharply demarcated blackish tip; it appeared noticeably longer and thicker than those of the adjacent Herring Gulls, identical in both pattern and size to a first-winter Glaucous Gull. In overall size, this bird was noticeably larger than all the Herring Gulls, with the broad-winged, lumbering flight typical of Glau-

"Nelson's Gull" (right) with Herring Gull, 30 December 1998, Pine Bend, Dakota County. Photo by Karl Bardon.

cous; when seen next to both a first-winter and a third-winter Glaucous on 28 December, this bird appeared to be the same size. The head and body were pale cream with diffuse mottling, overall darker than a first-winter Glaucous. The coverts and mantle were light tan with subtle barring throughout, appearing overall slightly darker and noticeably less patterned than a first-winter Glaucous. The tertials were darker than the mantle and coverts, appearing a smooth, pale brown on the basal two-thirds, with mottled whitish tips and a little dark spotting and marbling within the white tip, quite different from a typical Glaucous which has whitish tertials with pale barring, and remarkably similar to the tertials of the average first-winter Thayer's Gull. The primaries were even darker than the tertials, appearing a medium brown with obvious, whitish, crescentic tips. This pattern was also similar to a first-winter Thayer's Gull, but the pale primary tips were narrower and more clean-cut. In flight, the Nelson's Gull showed a "dark-light-dark" pattern on the upperwing, formed by a moderate secondary bar and darker outer primaries than inner primaries. The spread primaries were darker on the outer web than the inner web, again similar to a Thayer's Gull. The tail was in between the mantle and the tertials in shade, and appeared mostly unpatterned; this broad, dark tail band contrasted with the rump which was whitish with pale barring. The primary projection was nearly a full bill length, longer than the average Glaucous Gull.

On sunny days the primaries could appear almost blackish and the bird appeared paler overall, while on overcast days the tertials and primaries appeared more similar to the coverts and mantle in coloration, and the bird appeared slightly darker overall. With its Glaucous Gull-like bill and overall size, and its Thayer's Gull-like wing and tail pattern, this bird had a unique appearance, making it easy to recognize.

There has been only one previous report of this hybrid in Minnesota, a first-winter bird seen at Grand Marais, Cook Co. on 17 October 1994 (***The Loon*** 66:196–97). My only previous experience with this hybrid type was also a first-winter bird, seen at the Superior, WI landfill on 13 December 1993; this latter bird appeared similar to both the Minnesota individuals. **Karl 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;* conduct field trips; encourage and sponsor the preservation of natural areas; and hold seminars where research reports, unusual observations and conservation discussions are presented. We are supported by dues from members, affiliated clubs and special gifts. The MOU wishes to point out that any or all phases of the MOU program could be expanded significantly with gifts, memorials or bequests willed to the organization.

Suggestions to Authors

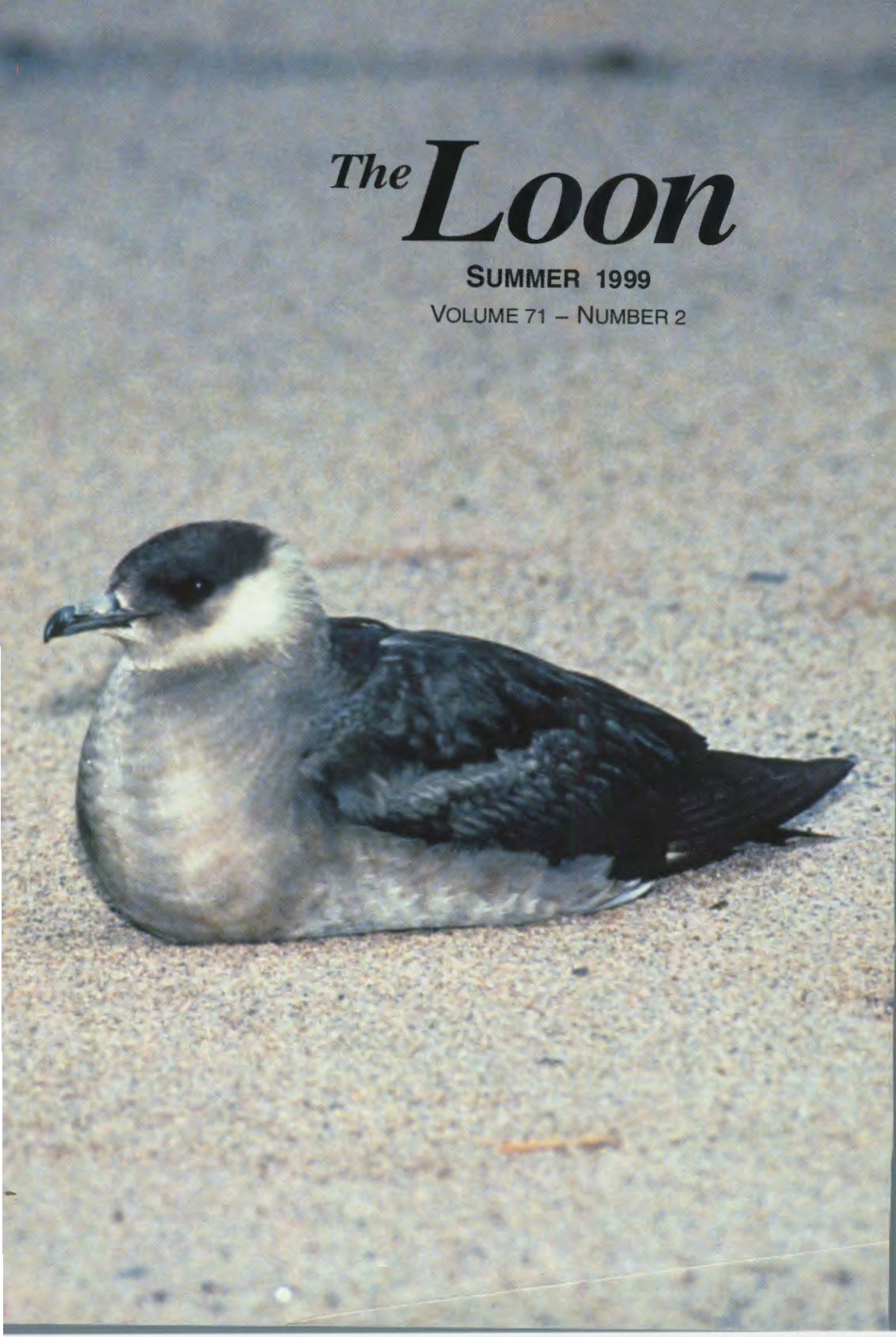
The editors of ***The Loon*** welcome submissions of articles, "Notes of Interest" and color or black & white photographs. Submissions should be typed, double-spaced and single-sided. Notes of Interest should be less than two pages. Photographs should be 5"X7". Whenever possible, please include a copy of your submission in any standard format on any 3 ½ inch 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 "The Season" should be sent promptly at the end of February, May, July and November to Peder Svingen. See key to the "The Season".

The Loon

SUMMER 1999

VOLUME 71 – NUMBER 2



The Loon, Minnesota's journal of birds, is published four times a year by the **Minnesota Ornithologists' Union**, the statewide bird club. Anyone interested may join. All members receive our two publications: ***The Loon*** and *Minnesota Birding.*

MOU PERMANENT ADDRESS:
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Yearly donations to join the MOU: Single: $20; Youth (through age 17) $15; Family $30; Supporting $50; Life $400. Canadian and Foreign Subscriptions $25. Also available are back issues of ***The Loon*** ($4 each ppd.) and checklists of Minnesota birds (minimum lots of 20 for $10 ppd.).

MINNESOTA BIRD REPORTS:
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Duluth 218-525-5952

MOU E-MAIL ADDRESS:
mou@biosci.cbs.umn.edu

MOU INTERNET WEB SITE:
http://www.biosci.umn.edu/~mou

ISSN 0024–645X

Raymond A. Glassel
1927–1999

Robert B. Janssen

Ray Glassel, Minnesota's preeminent birder, died of lung cancer on July 3, 1999, a sad day for the Minnesota birding community. Ray had been struggling with the disease since its diagnosis in October 1996.

Ray Glassel in 1990.

Ray was born in Milwaukee, Wisconsin, of unknown parents. He spent the first six months of his life in an orphanage, then was adopted by the Glassel family, and spent his early years in northwestern Wisconsin near the community of Clam Falls.

Life was not easy in this part of Wisconsin in the 1930s. As Ray often explained to me, life was a lot of hard work on the farm, milking cows and bringing in hay. He really didn't like farm life very much. He had to walk many miles to the one-room school house where he attended grade school. It was on these walks that Ray learned an appreciation for nature, especially birds. He learned to identify by "sneaking up on them," he told me, and then just watching them. He didn't have binoculars but still learned to identify most of the common birds in that part of Wisconsin.

All through school Ray was fascinated by books about birds. They were few and far between at that time. One of the great events of his young life was when his grandmother gave him a copy of T. Gilbert Pearson's *Birds of America*. He literally memorized the book. He couldn't believe that such birds as sandpipers existed. They were exotic species he thought he would never see.

Ray left home at 16, tired of his years on the farm. He chose to work and live in the hotel in Cumberland, Wisconsin, earning his room and board and a few dollars per week. At 18 he was drafted into the Army. This was a most exciting experience for a young man from a remote rural area. It opened up a whole new world for him. He continually told stories of his experiences in boot camp, Army life in Germany, guarding prisoners of war, and traveling on a troop ship. He served twice in the Army, once from 1945 to 1947 and again from 1948 to 1951.

Out of the service he tried life in northwestern Wisconsin again, but it didn't offer much of a future. He came to the Twin Cities, working for the Minneapolis Moline Company as a fork-lift operator.

It was about this time, in the early 1950s, that a group of Minneapolis birders formed the Avifaunal Club. They wanted to see as many birds in Minnesota as possible. Ray was one of the first to join the new club, along with charter members Bill Pieper, Burt Guttman, Gary Filerman, John Futcher, Jeremy Berman, and Ron Huber.

I'll always remember Ray telling the story of Bill Pieper and himself on their first trip to the North Shore of Lake Superior in 1953. They found a Common Eider in the harbor at Grand Marais, the first record of the species in the state. They didn't know who to call to share the record. They finally reached Jack Hofslund in Duluth but, alas, Bill and Ray were the only ones to see the bird.

I met Ray in the late '50s at an Avifaunal Club meeting. I don't remember all the details but these first meetings were for planning trips to what we considered exotic places in Minnesota. At this time, Hap Huber and Brother Theodore Volker joined the club. These were the formative years for all of us. We were devouring Roberts' *Birds of Minnesota*, looking at maps of the state, and reading everything we could about Minnesota birds.

At one of these meetings we planned a trip to northwestern Minnesota to look especially for Yellow Rails. Someone said (I think it was Ray) "Let's go up highway 59 to the Mahnomen County line and turn left." This led to the discovery of the Yellow Rail area along the Becker-Mahnoman county line, and soon thereafter came our first trip to the Felton Prairie with its Chestnut-collared Longspurs, plus Sprague's Pipit and Baird's Sparrow.

We were all off and running, building our Minnesota life lists with trips all over the state on as many weekends as we could possibly find to get away. And, Ray was always the leader, doing the most birding and building the biggest lists.

Ray would wind up birding just about every day for the rest of his life.

Ray and I birded almost every Saturday during our working years. We planned trips to all corners of the state looking for Minnesota lifers. Our favorite spot was Duluth. One year in the late '70s we made 35 trips to Duluth! Bill Pieper was the only one at this time to keep 87 county checklists, one for each county in Minnesota. Most of us, including Ray, thought that was weird. However, Ray eventually became interested in the friendly competition of county listing. Once interested, Ray became totally immersed in county listing - by the late '70s he even got me started.

Ray and I spent the next 20 years going to every county in the state as many times a year as we could. At first our goal was 100 species in every county. Then it was 200, and eventually 210. Ray made it to 210 in every Minnesota county but Koochiching, where his total was "only" 208.

Ray recorded 317 species in Hennepin County. His average for all the counties was 236. Ray's composite total for all Minnesota counties was 20,538. These are amazing totals. His last county bird was an American Avocet at Lake Byllesby in Goodhue County in June of 1999.

Ray recorded 397 Minnesota lifers, tops in the state. His last life bird was the magnificent Swallow-tailed Kite at Lake Sakatah in Rice County in May 1999. Ray wanted to see 400 species in Minnesota but it wasn't to be.

Besides his life list and county lists, Ray listed birds by the month. He had the top Minnesota list for just about every month in the year. His average number per month was 238.

Ray Glassel was an admitted alcoholic who beat this addiction and was alcohol-free for the last 18 years of his life. For many years he smoked as many as three or four packs of cigarettes a day. He overcame this addiction also. He was addicted to birding, too, a wonderful addiction that will be a credit to Minnesota and its birding community as long as there are birds and birders here.

Ray drove over a million miles in the state of Minnesota in pursuit of birds. He

and I took, as best as I can calculate, over 1,200 birding trips together over a period of 40 years. Obviously, my life was greatly influenced by this man. We talked about many subjects during our long drives — birds and birding, of course, but also politics, families, money, marriage, life, and death. We watched innumerable sunrises and sunsets together, and most of all we shared the great joy of Minnesota's birds.

A few years ago when I told Ray I was going to go to seminary school he said "Why do you want to do that? Why don't you just go birding?"

I don't know if Ray believed in what some of us call eternal life. I think Ray believed in eternal birding, though, which is, in my book, the same.

So, Ray, let's go birding.

162 Lakeview Road E., Chanhassen, MN 55317.

Ray
(1927–1999)

Kim Eckert

That was the thing about him. You never had to ask, "Ray who?" Everyone knew who you were talking about without the last name. Minnesota's most accomplished lister, having seen just a few species shy of 400 in the state, he long ago logged an amazing 200+ birds in all 87 counties. Ray was the one who always remembered to call, to make sure everyone had heard about the latest rarity. The one who could recall all the places he had been, all those birds he had seen, without having to refer to map or checklist. Ray never seemed to tire of birding, even though it seemed there was almost nothing left for him to see.

He was a birder, you see. Just that — birding for the enjoyment of it all. That's how everyone knew who Ray was. No, he never wrote much, his articles only infrequently appearing in ***The Loon***. That's not how people knew him. The internet? Was Ray one of those who became known by commenting on everything for anyone with a modem to read? Hardly. To his credit, Ray became a pioneer of sorts these last few years. He actually knew how to bird without computer, listing software, or modem. To his credit, he kept his opinions to himself and among his friends. I never knew Ray to have a serious disagreement with anyone, to be criticized or disliked — even briefly — by anyone. That was the thing about Ray.

For all his fame, he never called attention to himself, to his lists, or his failing health. He didn't want any attention or fuss. Well, sorry to say, we're making a fuss now. About the one named Raymond Arthur Glassel, the one we used to just call Ray.

8255 Congdon Blvd., Duluth, MN 55804.

Breeding Birds of the Cornish Hardwood Management Area: Aitkin County

JoAnn Hanowski

During presettlement, about 20% of Minnesota's forest or 5.3 million acres were northern hardwoods (Frelich 1998). Over the past century, almost 4 million acres of northern hardwood stands in Minnesota have been converted to other forest types (primarily shade intolerant species like aspen) and today, less than half of the original acres (9% or 1.5 millions acres) of this type exists in the state. There has been a recent interest in limiting future loss of this forest type in northern Minnesota by managing it on an uneven-aged basis. The Cornish Hardwood Management Area (CHMA), located in northeast Aitkin County, is managed by Aitkin County and the Minnesota Department of Natural Resources (DNR) forestry departments in an uneven-aged format. The forestry goals for this area are to provide wood resources for local industry and to promote regeneration and growth of high value hardwood trees by maintaining this forest type throughout each rotation. Forest stands are harvested on an approximate fifteen year rotation and individual trees are selected for harvest to promote hardwood growth and regeneration. After each harvest, an over-story canopy and approximately 80–85 ft^2 basal area is left in the stand.

Northern hardwood forests provide habitat for a variety of breeding bird species, including several long-distance migrants (Natural Resources Research Insititute data, 1997). The response of breeding birds to successional forest stages, from clearcut to mature stand ages, are relatively well known and predictable for northern Minnesota forests (NRRI data, 1997). However, breeding bird response to uneven-aged management in northern hardwoods has not been studied in Minnesota. Because bird species composition changes in response to modification in habitat structure, it will be important to understand effects of uneven-aged management on bird species composition and abundance in this area. The objectives of this study were to: 1) establish a long-term breeding bird monitoring program in the CHMA to detect annual changes in species abundance, 2) determine whether bird community composition and species abundance are affected by uneven-aged management, and 3) compare bird communities in the CHMA with those of other northern hardwood forests in northern Minnesota.

Study Area

Twenty-six individual forest stands that were greater than 100 ha were selected for monitoring in spring of 1998 following the protocol by Hanowski and Niemi (1995). The term "stand" refers to a plot of forest land that is generally the same forest type (age and species) that will receive similar forest management and treatment. Eight stands were harvested within the past ten years (managed), eight stands are in the management area, but have not been recently managed (unmanaged), and ten stands were located in Savannah Portage State Park. Sites within Savannah Portage State Park were used as reference sites, although

they did receive some harvest treatments in the early 1950s (personal communication with park personnel). Because these sites have been disturbed, they do not meet the old-growth criteria (i.e., >120 years old and no significant human disturbance; see Hale *et al.* submitted). These sites will not receive harvest treatments in the near future. Two points were established in each stand and were permanently marked with metal fence posts. The points are 250 m apart from each other and 100 m from the stand edge. Point locations were recorded with a geopositioning system (GPS) and coordinates are available from the Aitkin County Forestry office.

Methods

One survey of breeding birds was conducted at each point between 8 and 16 June 1998. An unlimited radius, ten-minute point count was conducted between one half hour before and four hours after sunrise. Counts were done by the author on days with good weather conditions (no precipitation and wind < 20 kph).

Numbers of species, total individuals, and numbers of individual species from the two points in each stand were added and these totals were examined for normality. Appropriate transformations were done for those variables that did not have normal distributions or homogeneous variances. Analysis of variance (ANOVA) was used to determine whether total number of species, total number of individuals, or numbers of individual species were different among the three management groups. Species that occurred on sites within two of the three management groups were analyzed.

Results

A total of 25 bird species was observed in 26 stands (52 points) (Table 1). Of the 25 species observed, four were only observed in the reference stands including Ruby-throated Hummingbird, Black-capped Chickadee, Nashville Warbler, and Pine Warbler. Three species, Northern Flicker, Great Crested Flycatcher, and Northern Parula, were only observed on the managed sites. The Black-and-white Warbler and Blackburnian Warbler were counted only on the unmanaged sites.

On average, we observed about 22 individuals and seven to eight species in each stand (total of two point counts). No differences were detected in bird communities among management types (Table 1). The Ovenbird, Red-eyed Vireo and Least Flycatcher were the most abundant bird species and no differences were detected among treatment types for these species (Table 1). Two of the 15 species tested with ANOVA indicated a significant difference ($p < 0.05$) in abundance among management types. The Chestnut-sided Warbler and Winter Wren were more abundant in the managed than in the unmanaged or reference sites (Table 1).

Discussion

Bird community composition of stands in the CHMA and Savannah Portage State Forest is similar to other northern hardwood stands in northern Minnesota and Wisconsin. Total numbers of species and individuals in the CHMA were similar to what was found in five maple stands in the Tofte District of the Superior National Forest and in six maple/basswood stands in the Chippewa National Forest over the past eight years. Bird community composition from pole (24 stands) and saw (11 stands) sized stands in the Chequamegon National Forest (northern Wisconsin) over the past seven years was also similar to what was found in the CHMA. In general, bird species richness and total number of individuals observed in northern hardwood stands rank this habitat in the lower third of nine other forest habitats (pine, aspen, spruce/fir, black spruce, tamarack, etc.) surveyed in this region (Hanowski, personal data).

Types of species observed and abundance of these species in the CHMA were also similar to what was found in hardwood stands in this region. The Ovenbird

Table 1. Mean (M) and standard deviations (SD) of breeding birds observed in managed, unmanaged, and reference hardwood sites in northern Aitkin County. F- and P-values from analysis of variance tests are also included for those species that were abundant enough to test.

	Managed (n=8)		Unmanaged (n=8)		Reference (n=10)		F-value/P-value	
Community Parameters	M	SD	M	SD	M	SD		
Individuals	22.6	4.6	22.6	1.6	21.9	3.3	0.14	0.87
Species	8.4	2.9	7.3	1.2	7.0	1.8	1.10	0.35
Individual Species								
Ruby-throated Hummingbird	–	–	–	–	0.1	0.3	–	–
Northern Flicker	0.1	0.3	–	–	–	–	–	–
Yellow-bellied Sapsucker	0.8	0.9	1.3	0.7	1.1	1.0	0.68	0.52
Downy Woodpecker	–	–	0.1	0.4	0.2	0.4	0.83	0.45
Unidentified Woodpecker	0.3	0.5	0.1	0.4	–	–	–	–
Great Crested Flycatcher	0.1	0.3	–	–	–	–	–	–
Least Flycatcher	3.8	3.2	3.3	1.9	2.5	2.8	0.49	0.62
Eastern Wood Pewee	0.5	0.5	0.3	0.5	0.7	0.7	1.36	0.28
Blue Jay	0.2	0.5	0.1	0.4	–	–	1.35	0.28
Black-capped Chickadee	–	–	–	–	0.2	0.4	–	–
Brown Creeper	0.1	0.3	–	–	0.1	0.3	0.46	0.64
Winter Wren	0.6	0.7	–	–	0.2	0.4	3.45	0.05
Hermit Thrush	1.5	0.7	0.8	0.7	0.4	0.7	0.85	0.44
Veery	0.4	0.7	0.3	0.7	–	–	1.04	0.37
Red-eyed Vireo	5.6	1.3	6.1	1.4	5.5	1.4	0.49	0.62
Black-and-white Warbler	–	–	0.3	0.5	–	–	–	–
Nashville Warbler	–	–	–	–	0.3	0.7	–	–
Northern Parula	0.3	0.5	–	–	–	–	–	–
Black-throated Green Warbler	1.6	0.5	1.8	1.3	2.1	1.1	0.53	0.59
Blackburnian Warbler	–	–	0.1	0.4	–	–	–	–
Chestnut-sided Warbler	0.5	0.5	0.1	0.4	–	–	4.65	0.02
Pine Warbler	–	–	–	–	0.1	0.3	–	–
Ovenbird	6.8	1.7	7.0	1.6	7.9	1.9	1.09	0.35
Northern Waterthrush	0.1	0.3	–	–	–	–	–	–
Scarlet Tanager	0.3	0.5	0.5	0.8	0.5	0.5	0.49	0.61
Rose-breasted Grosbeak	0.3	0.5	0.4	0.5	0.1	0.4	0.92	0.41

was the most abundant species in the CHMA and also most abundant in hardwood stands in northern Minnesota and Wisconsin (Hanowski, personal data). This species typically reaches its highest abundance (or second highest) in this forest type compared to other forest types in the region. Similarly, the Red-eyed Vireo, Least Flycatcher, and Black-throated Green Warbler, which were the next most abundant individual species in the CHMA, are also abundant in other hardwood stands in the region. These species also have higher abundance in this forest type than in most other forest types where they occur (Hanowski, personal data).

Both species that were more abundant in managed stands — the Chestnut-sided Warbler and Winter Wren — are associated with habitat features that occur shortly after forest management activities. For example, the Chestnut-sided Warbler is a shrub-associated species and responds to shrubs growing in small gaps after trees are removed. The Winter Wren nests in upturned roots, old cavities, or brush piles and often occurs in association with slash piles left after harvest activities. The higher abundance of these two species in managed stands is therefore predictable based on their specific habitat needs. Both of these species occur in hardwood stands throughout the

region. However, the Chestnut-sided Warbler is most abundant in early-regenerating stands and the Winter Wren in lowland conifer or mixed conifer-deciduous forest types (Hanowski, personal data).

Overall bird communities in all stands sampled, regardless of management history, were similar. This indicates that uneven-aged management such as that done at CHMA does not result in a forest structure that is different from what currently exists in other northern hardwood stands in this region. The lack of difference between managed and unmanaged stands and stands in Savannah State Forest is likely due to the age and management history. In general, the bird species composition and age of trees among these three areas do not appear to be different. This result is similar to previous findings for other "old-growth" northern hardwood stands in the state. For example, bird surveys in representative old-growth stands in Minnesota have not identified any old growth dependent species (Hanowski, personal data). This result may be an indication of the relatively young age of Minnesota's old-growth forest and suggests that these stands are structurally similar to mature stands. This presumption is supported by Hale *et al.* (submitted) who reported that tree, sapling, and large and small seedling densities were similar in the old-growth and mature stands that they sampled. The major structural difference that they found was in the volume and types of coarse woody debris. This structural difference would not likely affect bird species composition in these forests.

A species that was absent in northern hardwood stands in this region was the Black-throated Blue Warbler. This species is rarely found in northern hardwoods in north central Minnesota but occurs in selected northern hardwood stands in northeast Minnesota, primarily in the Lake Superior highlands. This species has a high priority ranking in the Great Lakes region, primarily because a large percentage (29%) of its range occurs here (Niemi *et al.* 1998). A study of the Black-throated Blue Warbler in northeast Minnesota in 1998 found that this species prefers northern hardwood stands with a shrub understory (Lind 1999). In areas where there are few shrubs, it was primarily associated with small gaps (in the range of 0.05 to 0.10 ha) in the canopy that resulted from blow downs.

The natural disturbance regime for northern hardwoods in this region were windstorms which occurred every few decades and created small forest gaps by blowing down senescent or weak and hollow trees (Frelich 1998). Disturbance by fire or other major wind disturbance which createed young, even-aged stands was infrequent (every 1000–2000 years), and thus a typical acre of northern hardwood forest had trees of many sizes and ages with many gaps in different stages of recovery (Frelich 1998). It is possible that the Black-throated Blue Warbler historically responded to habitat that was created by these gaps and moved across the landscape as new patches were created and old patches became unsuitable.

It may be possible to maintain the objectives for forest management in the CHMA by completing harvests that would result in the creation of small gaps. Another recommendation would be to choose harvest equipment that would have less impact on the understory vegetation (e.g., less skidding of trees). These management suggestions will not only provide more suitable habitat for avian species that require shrubs and saplings, but also preserves a population of seedlings and saplings for future recruitment into the canopy.

Acknowledgments

Thanks to Jeff Hines (Minnesota Department of Natural Resources) and Mark Jacobs (Aitkin County Forestry) for their help in securing funding for this project and for coordinating the site selection and census point set-up. Rita Hawrot and Jerry Niemi provided helpful comments on an earlier draft. This is contribution number 231 of the Center for Water and the Environment of the Natural Resources

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A Review of Historical Record of the Eskimo Curlew in Minnesota

Anthony X. Hertzel

"During such flights the slaughter of these poor birds was appalling and almost unbelievable. Hunters would drive out from Omaha and shoot the birds without mercy until they had literally slaughtered a wagonload of them, the wagons being actually filled, and often with the sideboards on at that. Sometimes when the flight was unusually heavy and the hunters were well supplied with ammunition their wagons were too quickly and easily filled, so whole loads of the birds would be dumped on the prairie, their bodies forming piles as large as a couple of tons of coal, where they would be allowed to rot while the hunters proceeded to refill their wagons with fresh victims, and thus further gratify their lust of killing." — Myron Swenk, 1916.

The history of the Eskimo Curlew (*Numenius borealis*) in North America is well known to ornithologists, though perhaps not well publicized, and its wholesale destruction at the hands and guns of unscrupulous hunters has been thoroughly documented. It was shipped by the ton via the railroads to east coast markets and sold to restaurants in the major cities. This small curlew quickly went from being one of the most abundant shorebirds of the mid-1800s to a nearly extinct species by 1900. It has not been reported in Minnesota since 1886.

So quick and so complete was the species' obliteration that some later ornithologists and researchers seriously ques-

tioned whether it had ever occurred in Minnesota. As recently as 1987, William Pieper wrote to the Minnesota Ornithological Records Committee (of which he was a charter member), and citing a lack of evidence, proposed removing the curlew from the state list altogether.

No photographic evidence exists. No Minnesota specimen remains, and good, first-hand records are nearly as lacking. The only indications that the species occurred in Minnesota are a few nineteenth century chronicles and lists, three 115-year-old reports, and some tantalizing indirect evidence. This paper aims to collect the accounts and records that are scattered through the old literature and which are becoming increasingly difficult to find. The intent is to present evidence that the Eskimo Curlew did in fact once visit Minnesota in impressive numbers.

Early North American Accounts

Small curlews which were probably this species are mentioned in earlier texts, but most authorities, including the American Ornithologists' Union (A.O.U. 1998), cite Johann Reinhold Forster as the first to describe the Eskimo Curlew to science. In a paper published in the *Royal Society of London Philosophical Transactions* he gives this brief account of the species: "*Scolopax*. 41. *Borealis*. New Species. Eskimaux Curlew. Faun. Am. Sept. 14. Albany Fort, No 15. This species of Curlew, is not yet known to the ornithologists; the first mention is made of it in the *Faunula Americae Septentrionalis*, or *catalogue of North American animals*. It is called We-keeme-nafe-fu, by the natives; feeds on swamps, worms, grubs, &c; visits Albany Fort in April or beginning of May; breeds to the northward of it, returns in August, and goes away again the latter end of September." (Forster 1772). The *catalogue of North American animals* he mentions is a little-cited publication which Forster had published the previous year. In this booklet he writes only, "XXXIII. Curlew Eskimaux. N. S. Mr. B." (Forster 1771). In his preface Forster explains that "N. S." means "New Species" and "Mr. B." refers to the individual who sent Forster the first Eskimo Curlew specimens. "Mr. B." may have been a Mr. Bolton of Halifax, Nova Scotia (Sclater 1882). Or, as Williams (1969) suggests, "Mr. B." was Andrew Graham who lived and collected near Hudson's Bay from 1767–1775.

The Eskimo Curlew soon proved to be extremely abundant with some migrating flocks estimated to number in the tens of thousands. Nesting on the barren tundra of northwestern Canada and probably parts of Alaska, their fall migration took them first eastward to Labrador and Newfoundland, then down the coast past the New England states and eventually to South America to winter primarily in Argentina and Patagonia (Stout *et al.* 1967). Beginning their return migration in late February, the birds usually arrived in Texas by mid-March and, continuing their northward passage via an interior route, reached the Upper Midwest by April or early May. The few records from Minnesota range from an early date of 3 April to the late date of 9 June.

All along its migration route the Eskimo Curlew was hunted relentlessly in both spring and fall. The hunting was said to have continued on its wintering grounds as well, (although del Hoyo *et al.* 1996 question this), so that its only relief from the guns was during its brief nesting period in the Arctic. While various other theories have been put forward to explain the species' rapid disappearance (see especially Banks 1977 and Gollop *et al.* 1986), hunting certainly was a major factor. Forbush (1912) describes "flocks of which resembled in appearance and numbers the multitudes of the Passenger Pigeon" and details the species' wanton destruction with accounts from Labrador and Massachusetts in the fall, and from Texas, Oklahoma, and Nebraska in the spring. He relates "...it had been coming into the eastern markets by the ton in barrels from the Mississippi Valley in spring." With no protection from the law, the species' huge numbers were

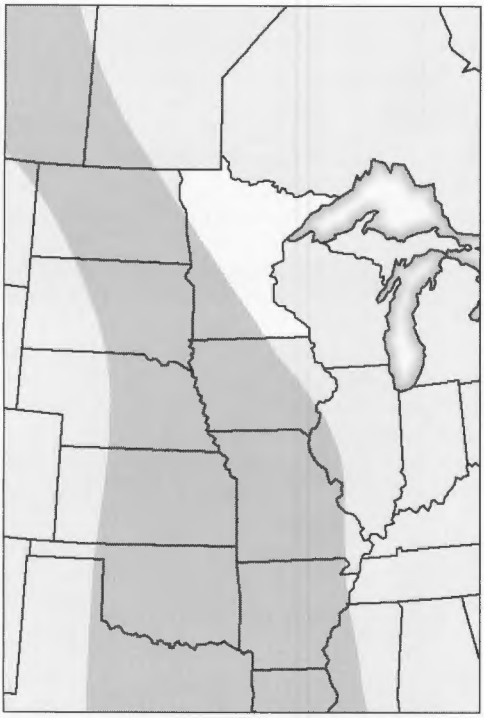

Figure 1. Spring migration route of the Eskimo Curlew through the Midwestern plains states of North America. After Gollop *et al.* 1986.

decimated fairly quickly. By the late 1890s, the Eskimo Curlew was all but extinct.

Minnesota

While not as common as in nearby states to the south and west, there can be little doubt that the Eskimo Curlew passed through Minnesota in large numbers. Yet by the time ornithologists and collectors arrived in the state the bird was already nearly extirpated.

Though little hard data and no actual specimens exist, most early authors considered the Eskimo Curlew to be an obvious and abundant migrant in the western half of Minnesota. And while many writers of the 1800s probably did have first- or second-hand knowledge of the curlew's occurrence in the state, virtually none kept detailed records of dates or locations. The only actual records are those of Thomas Miller of Heron Lake, Jackson County. Miller submitted records of Eskimo Curlew observations to the U. S. Biological Survey for three consecutive years from 1884 to 1886.

The Biological Survey Records

In preparing for this paper, I queried the Biological Survey (records originally at Washington D.C., now a part of the U. S. Geological Survey at Patuxent Wildlife Research Center, Laurel, MD) for their data and old records. The Survey of 1885 has the first specific Minnesota record. This report from Jackson County for the year 1884 reads, "First: 3 April 1884, Heron Lake, Thomas Miller" (U. S. Biological Survey 1885) but the number of individual birds seen is not given. Written on this card at a later date is "prob n.g." which likely means "probably no good." Why this record would be characterized as such is not clear. Who wrote "prob n.g." is not recorded either. It may have been Wells W. Cooke who was in charge of bird migration data for the Survey for a time and a knowledgable Minnesota resident. This seems unlikely, however, since he cites this record in a later paper (see below).

The following year the Biological Survey of 1886 lists the second Minnesota record, also from Jackson County, "First: 24 April 1885, Heron Lake, Thomas Miller," (U. S. Biological Survey 1886). Again, the number of individuals is not reported. For more than 100 years these two observations were the only known Minnesota records of Eskimo Curlew listing the date of the observation, the location, and the name of the observer.

Surprisingly, the Survey of 1887 lists a third Minnesota record giving two 1886 Jackson County dates, "First: 2 May 1886. Last: 9 June 1886, Heron Lake, Thomas Miller" (U. S. Biological Survey 1887) but no numbers are given. This is apparently a previously overlooked record with no subsequent references in the ornithological literature. The reason for this is unknown. The date of 9 June seems late,

but is consistent with those given for both Kansas and South Dakota (Gollop *et al.* 1986).

Later References to the Survey

In a U. S. Department of Agriculture publication on bird migration, Cooke (1888) writes "The most abundant of the three Curlews. Migrates through the Mississippi Valley in immense numbers, but does not stay to breed or to winter." In the same account he refers to Miller's 1884 record from Jackson County, writing "April 3 found a few at Heron Lake, Minn." This is the first (and only) indication that more than one bird was observed at this location. Cooke does not question this record. He also mentions Miller's 1885 observation, writing "they reached Emporia, Kans., April 13, and Heron Lake, Minn., April 24" without giving any indication of numbers reported. As Cooke's publication covered only the years 1884 and 1885, Miller's 1886 record would not have been included. Since later authors often cited Cooke's 1888 paper, this may partially explain the lack of later references to Miller's 1886 record. In a later abbreviated work, Cooke (1912) makes no specific mention of any upper Midwest record and only briefly summarizes the species' spring migration through the Mississippi River Valley.

Swenk (1916), in a paper devoted to the Eskimo Curlew's disappearance in North America, mentions Minnesota briefly. In regard to the species' arrival in the state, he cites Cooke's 1888 paper and simply offers the same two dates submitted to the Biological Survey by Miller in 1884 and 1885. Roberts (1932) also refers to Miller's 1884 and 1885 contributions to the Survey, describing them as "questionable," but giving no explanation. It is possible that, since he requested and was sent most of the data cards which the Biological Survey had from Minnesota at the time, he read the comment "prob n.g." written on Miller's 1884 record, and merely reiterated the opinion and applied it to both records. It is also possible that Roberts himself did not find the records questionable. And, as no copy or reference to any of the Survey's curlew records appears in Roberts' files, it may even be that he saw none of them. He does not mention Miller's 1886 report to the Survey, and it is clear that he never saw it. As most subsequent authorities cite Roberts and Cooke (1888), the 1886 record remained forgotten or misplaced until now.

Breckenridge (1949) paraphrasing Roberts, also refers to Miller's first two records, adding that these are the last known for the state. As for the species' earlier status, he only says "In the early 1800s it passed through Minnesota in abundance" and this seems to be a paraphrasing of Roberts.

Gollop *et al.* (1986), reference both Roberts (1932) and Cooke (1888). They apparently considered the 1884 and 1885 Jackson County records to be valid enough to use them as data points on a map depicting the curlew's northward migration route through the plains of central North America (see Figure 1).

Though several authors and observers list the Eskimo Curlew as occurring in Minnesota, Thomas Miller alone documents first-hand experience by offering specific dates and locations. All other accounts mention the species' occurrence here only in indefinite terms.

Indefinite Minnesota References

The first mention in the Minnesota literature is from Philo Hatch (1876) who, while enumerating a list of the birds of Minnesota for the Minnesota Academy of Natural Sciences writes, "Esquimaux Curlew — *Numenius borealis*, Lath., is found to be abundant in season in some parts of the State especially the northwestern." ("Lath." refers to John Latham, 1740–1837.) Following this early effort with an updated list for the same Academy, Hatch (1881) states rather succinctly, "*Numenius borealis* — Esquimaux Curlew — Not rare." Eleven years later Hatch (1892), in writing the first major book on Minnesota's birds, claims to have seen several specimens in the possession of

Figure 2. Migration routes of the Eskimo Curlew. From Cooke (1915).

various taxidermists and at one point had one sent to him from the Red River area. This specimen has evidently been lost. The first hint of doubt as to whether the species ever occurred in Minnesota appears in this text when, of their migration through the Midwest he writes, "If they are so abundant along the Missouri, it seems most probable that flocks may not altogether infrequently find their way along the Mississippi, and up the St. Peters or Minnesota rivers."

In an early sportsman's journal, Charles Hallock gives an annotated list of the "principle resorts for game and fish in North America." Among the Minnesota entries he lists Delavan Station — now the town of Delavan — in northwestern Faribault County. He writes "Delavan Station. There are in the neighborhood many lakes, sloughs, ponds, and creeks, where the sportsman will find excellent shooting and fishing. Ducks, geese cranes, snipe, curlew, and on the prairie great numbers of Pinnated Grouse." (Hallock 1877, Dir.). For the towns of Easton and Wells, also in Faribault County, he simply refers the reader to his description of Delavan Station "for game and route" suggesting the same species may be found near those towns as well. Some later authors have interpreted his curlew reference to be the Eskimo Curlew (e.g., Gollop *et al.* 1986), but this is not the only possibility.

In 1880 Hallock writes that Eskimo Curlews can be found in the northern part of Minnesota as they migrate to and from their breeding grounds (Hallock 1880). He also asserts here, erroneously, that "Mallards and teal breed in northern Minnesota in large numbers, as do the Jack Snipe and the three varieties of curlew" but this may have been an editing error. The three curlews mentioned here and by Cooke (1888) were the Long-billed, the Hudsonian (Whimbrel), and the Eskimo.

When compiling an updated list on the birds of Minnesota, Cantwell (1890) writing for the *Ornithologist and Oologist* states "*Numenius borealis*, Eskimo Curlew. Commonest of the curlews. Seen only during migration." Roberts (1918) suggested this was second-hand information, pointing out that, except for a brief trip to the western part of the state in 1889, Cantwell did all of his observations and collecting around the Minneapolis area. Cantwell himself confirms this in the introduction and it is therefore quite likely that he never actually saw a live Eskimo Curlew in Minnesota. Because there were no additional records for the species in the state, the Biological Survey report of 1891 simply quotes Cantwell (1890), and in 1893 quotes Hatch (1892).

Roberts, in a chapter contributed to Wilcox (1907), wrote "Eskimo Curlew (*Numenius borealis*). Formerly an abundant migrant over the prairie regions of the interior, but now like the Passenger Pigeon, apparently a bird of the past. The

explanation of its singular disappearance is not apparent." It would seem that Roberts saw no need to question the curlew's earlier status in the state. Washburne (1915), however, in an early newspaper article on the vanishing birds of Minnesota, does question the regular occurrence of the curlew, writing "it was rarely, if ever, found in Minnesota." He also mentions a specimen "of which was reported years ago as taken in the Red River Valley." Likely this is the same specimen mentioned by Hatch (1892) which is now lost.

In a paper on the future prospects of North American shorebirds, Cooke (1915) includes a map of the western hemisphere which depicts the "principle migration routes" of the Eskimo Curlew (Figure 2). The spring route draws a line very close to the western border of Minnesota. It seems apparent from this map that the curlew would have been considered at least an infrequent visitor to the state.

Roberts (1918) gives a brief mention of Miller's two known records up to that point, refers to Cantwell's 1890 comments as "hearsay," and states that no Minnesota specimens are known. He adds "Long since absent from Minnesota, formerly passed northward in the spring in great numbers through the western Mississippi Valley." In his landmark work on the state's birds, Roberts (1932) writes that it once occurred in the western parts of the Mississippi Valley "in great numbers," adding "It is evident that it disappeared from the western part of the state, where it was without doubt once abundant as a spring migrant." Green and Janssen (1975) and Janssen (1987) simply quote this earlier work by Roberts.

Five years before his death, Roberts contributed an article to *The Conservation Volunteer* on the bird life of Heron Lake in Jackson County. Here he refers to "a Mr. Peters" who lived on the eastern shores of the lake in the 1850s. Of Peters, Roberts writes "Such an early comer was a Mr. Peters who settled on the east side of the northern lake well down toward what was later to be known as Winzer Bay. From him the writer heard of the lake's bird life during the early fifties of the last century.... Vast flocks of shorebirds came and went and some that no longer know Heron Lake nested on the uplands, among them the Long-billed Curlew, the Willet, and the Avocet. Each Spring vast flocks of the now extinct Eskimo Curlew passed northward. Such and many more were the stories related by old man Peters," (Roberts 1941). Sighting another source in the same article, Roberts mentions J. W. Preston, who was an egg collector from northern Iowa. He writes "In the spring of 1883 and again in 1885 the lake and vicinity were visited by a Mr. J. W. Preston in the interest of bird study. He kept a detailed diary. A transcript of the Minnesota portion is in the library of the Minnesota Museum of Natural History. Here we find records of the nesting of the Whooping and Sandhill Cranes, of many Canada Geese, pelicans, curlews, and ducks without end." Preston's transcripts apparently have been misplaced at the University and so the particular variety of curlew to which he referred is unknown.

Richard Harker, an old market hunter who retired to northern Iowa, recalled shooting a variety of waterfowl and shorebirds in southern Minnesota in the 1880s, especially at Heron Lake. In a 1945 article in the *Annals of Iowa* for which he was interviewed he recalled "There used to be a Dow Bird... They were mighty delicious meat and were soon extinct. I didn't kill more than a dozen or fifteen of them in my life," (Musgrove 1945). "Dow Bird" as well as "Doe Bird" and "Dough Bird" were variations of a common name for Eskimo Curlew at the time. As he also mentions dowitchers, yellowlegs, woodcock, snipe, Upland Sandpiper, godwits, and several other shorebird species, Eskimo Curlew is unquestionably the bird to which he was referring (and it is also footnoted as such in the text). Few specific locations are given, but for several reasons it is clear from the context that Harker se-

cured most, if not all, of his birds in Minnesota. All but one of the named localities is in Minnesota. The only non-Minnesota reference is Spirit Lake on the Minnesota-Iowa border and Harker says only that he arrived there when he was 18 or 19 years old. He then continues on to say that he hunted at Upper and Lower Heron Lake in Jackson County, Minnesota; that he hunted Loon Lake in Jackson County and Mud Lake, Long Lake, Slit Lake, and Green Lake, all in the vicinity of New London in Kandiyohi County; that he shipped his birds from the town of Lakefield just south of Lower Heron Lake; that he had a farm on Miller's Bay, which is on Upper Heron Lake (and named for Thomas Miller who lived on the west side); and that he owned two storage coolers, one in Kandiyohi County and the other in Jackson County. While these together give a strong indication that Harkin found his Eskimo Curlews in Minnesota, we cannot, of course, be certain of this.

In discussing the Eskimo Curlew's spring migration route Gill *et al.* (1998) wrote "During Mar–May, likely drifted north through tallgrass and eastern mixed-grass prairies (mostly west of the Mississippi River). Reported as an abundant to common spring migrant in central Texas, Oklahoma, Nebraska, Kansas, and e. South Dakota; common in s. Louisiana, w. Missouri, and Illinois (but not Arkansas), Iowa, and w. Minnesota (Gollop *et al.* 1986)." Note the lineage here: Gill *et al.* are citing Gollop *et al.,* who cite Roberts (1932) and Cooke (1888), who cite the U. S. Biological Survey reports of 1885 and 1886 which list Thomas Miller's original observations.

Records from Nearby States

Though Bent (1928) lists no specific data for Minnesota, several migration dates are given for most nearby states. Dates are given for Wisconsin, Nebraska, and South Dakota, as well as the more distant states of Michigan, Illinois, Kansas, and Colorado. Additionally, although Minnesota has no preserved specimen, most nearby states do. These include Indiana (3), Illinois (4), Missouri (2), Kansas (5), Wisconsin (3), Iowa (10), Nebraska (13), and South Dakota 2 (3?) (Gollop *et al.* 1986).

According to Hahn (1963), two Eskimo Curlew specimens from Iowa, both of which are now at the Davenport Public Museum, are labeled as having been collected in "northern Iowa." A specimen now at the J. F. Bell Museum of Natural History in Minneapolis was collected in Fond du Lac County, Wisconsin. Interestingly, of the 365 specimens listed by Hahn, 134 are not labeled as to where they originally were collected.

Summary

No Minnesota specimens are known and specific records are few. Two Jackson County records from the U. S. Biological Survey from 1884 and 1885 are cited throughout the pertinent literature, though some authors consider at least the 1884 record to be questionable. A third Jackson County record listing two dates for the year 1886 was just uncovered at Patuxent Wildlife Research Center.

Authorities writing at a time when the Eskimo Curlew was still commonly found, describe its occurrence in Minnesota as "abundant in season," "the most abundant of the three curlews," "abundant as a spring migrant," and "commonest of the curlews." An indirect reference in a sportsman's journal from the period lists northwestern Faribault County as a popular curlew hunting area. Several other local sources from the mid-1800s to the early 1900s, including market hunters, ornithologists, and oologists, recall finding Eskimo Curlews in southwestern Minnesota, especially at Heron Lake in Jackson County, though no dates were recorded.

A Brief Biography of the Early Authors

George Gordon Cantwell. Author, collector, and employee of the U. S. Biological Survey. Compiled and, in 1890, published an early list of 295 birds found in

Minnesota in the *Ornithologist and Oologist.*

Walter John Breckenridge. Born 1904. Ornithologist, author, and wildlife artist. Curator of the James Ford Bell Museum of Natural History at the University of Minnesota from 1946–1970. Now retired and living in Minneapolis.

Wells Woodbridge Cooke, 1857–1916. In charge of bird migration data at the U. S. Biological Survey from 1901–1916. He spent many years in Minnesota and authored several works on North American bird migration and distribution.

Philo Louis Hatch, 1823–1904. State Ornithologist in the mid- to late-1800s. One of the founders of the Minnesota Academy of Natural Sciences. Author of several papers and, in 1892, wrote the first book on Minnesota birds.

Charles Hallock, 1834–1917. Hunter, journalist, advocate of game protection. Founder and longtime Editor of *Forest and Stream* which is often cited by Roberts. The town of Hallock in Kittson County was named for him.

Thomas Miller, 1845–1899. Characterized by Roberts as "a canny Scotsman, rough as to exterior but surprisingly well-informed" and "well acquainted with the water-birds." Much of Roberts' data from Jackson County in *Birds of Minnesota* was contributed by Miller.

Thomas Sadler Roberts, 1858–1946. Ornithologist, physician, author. Widely considered by many to be the most important figure in Minnesota ornithology. Wrote *The Birds of Minnesota*, which is still the most complete book on the subject.

Myron Harmon Swenk. 1883–1941. Entomologist at the University of Nebraska from 1904–1941. Founding member of the Nebraska Ornithologists' Union and first Editor of *The Nebraska Bird Review.* President of the Wilson Ornithological Club from 1918–1919. A subspecies of the Eastern Screech-Owl, the Nebraska Screech-Owl (*Otus asio swenki*) was named for him.

Frederick Leonard Washburne, 1860–1927. Minnesota State Entomologist from 1902–1918. Professor of Entomology at the University of Minnesota 1902–1927. Surveyed bird-life in central and northwestern Minnesota in 1885.

Alvin H. Wilcox. 1834–1908. Author and civil engineer. Came to Minnesota in 1869 to do survey work in the Red River Valley. Retired to the town of Frazee, Becker County, and, in 1907 published an extensive work on the early history of that county.

Acknowledgments

Thanks to Chandler Robbins for providing copies of the original U. S. Biological Survey records, and to Harrison Tordoff and Peder Svingen for reviewing earlier drafts of this paper. Penelope Krosch helped search the many letters and files at the University of Minnesota Archives and James Dinsmore provided assistance in obtaining information from the University of Iowa at Ames.

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The Fall Season
(1 August to 30 November 1998)

Dave Benson, Paul Budde, Peder Svingen, and Wally Swanson
Foreword by Peder Svingen

For the third consecutive fall, unusually mild conditions persisted through late October but only a few species lingered later than usual. Record high counts of the ***Common Loon*** *were obtained in late October on Lakes Winnibigoshish and Mille Lacs. Associated with a lack of strong cold fronts, migration along the North Shore and at Hawk Ridge was uneventful. Throughout the state, owls and winter finches were conspicuous by their absence. Gulls made headline news at Duluth in late September but there were few newsworthy rarities this season. Although four Accidental species were reported, only the* ***Brambling*** *could be considered truly unexpected. The* ***Red Phalarope*** *fit an emerging pattern of October records in northern Minnesota and became Casual at the end of 1998. Another sighting of the* ***Black-headed Gull*** *in Jackson County was followed by an anticipated second state record of the* ***Eurasian Collared-Dove****.*

One juvenile **Red-throated Loon** on Lake Superior was the only report this fall of this species. The three **Pacific Loons** found off Park Point were unprecedented in number; the only other Minnesota record of multiple loons was two on Lake Vadnais, Ramsey County, on 22–23 October 1986 (***The Loon*** 59:50–51). At least four more were found elsewhere; this was one of the best fall migrations ever for this species. Record high counts of the **Common Loon** were obtained 20 and 21 October respectively, during surveys of pre-migratory staging on Lakes Mille Lacs (**1,688**) and Winnibigoshish (**1,599**). The previous high count was 1,497 on 20 October 1996, also at Lake Winnibigoshish. Another **Clark's Grebe** was attracted to Thielke Lake, a location favored by birds and birders.

An immature **Little Blue Heron** on a Mississippi River sandbar, near the outlet for Lake Bemidji, was well-documented

with notes and photographs for a first Beltrami County record. **Cattle Egrets** have remained scarce throughout 1997 and 1998, and despite the mild weather this fall, none was reported after mid-September. For the second consecutive fall, ***Plegadis*** ibises were reported in southwestern Minnesota.

Due to the mild conditions, waterfowl migration was late and unusual numbers lingered into December at the Upper Mississippi River National Wildlife and Fish Refuge. Still rare in fall, **Ross's Geese** were found in three locations. The two female or immature **Harlequin Ducks** feeding along the shoreline at Rocky Point were a rare discovery at Lake of the Woods. All three scoter species were poorly represented along the North Shore of Lake Superior this fall, but all were found in unusual locations away from the Great Lake. Most amazing was the flock of **230 Black Scoters** found by Anthony Hertzel on Mille Lacs Lake; this smashed the previous high count for this species by about 200! After overwintering there for three consecutive years, the male **Barrow's Goldeneye** did not return to the Blue Lake sewage lagoons in Scott County.

Record low numbers of the **Broad-winged Hawk** were counted at Hawk Ridge Nature Reserve (HRNR) in Duluth. Raptor migration was also uneventful away from HRNR. **Swainson's Hawks** went unreported after September and **Rough-legged Hawks** appeared to arrive later than usual. The **Golden Eagle** was found in more locations than usual, which partly compensated for a decrease in numbers at HRNR. Steve Millard commented on the status of **Richardson's Merlin** in west-central Minnesota; in most prairie areas there during migration, this form is expected. More unexpected were reports of *richardsonii* from HRNR, and from Hennepin and Houston counties. A disappointing total of only two **Prairie Falcons** was reported; one of these was apparently an individual returning to south Minneapolis for the winter.

The Minnesota DNR drew down Minnesota Lake in the south-central region, resulting in extensive mudflats that drew unusual numbers of **shorebirds**. Estimates of up to 10,000 shorebirds in August could not be confirmed during systematic counts by Karl Bardon on 8 August (1,189 total) and 6 September (1,890) but unusual species, including several first county records, were confirmed. Whatever the true numbers, it was a true spectacle that drew dozens of birders, amused the local residents, and

Table 1. 1998 Hawk Ridge Nature Reserve composite totals.

Species	Total	Peak	Peak #	Occurrence	Comments
Turkey Vulture	1,357	10/01	217	8/18–10/27	1,325 last year
Osprey	**575**	9/17	52	8/20–10/18	record season (517 in 1997)
Bald Eagle	3,289	10/19	317	8/21–12/13	2,407 in 1997; 3,293 in 1996
Northern Harrier	1,126	9/16	100	8/14–11/13	721 last year
Sharp-shinned Hawk	19,863	10/18	1,062	8/17–12/08	record high 22,344 last year
Cooper's Hawk	205	9/29	12	8/21–11/16	200 last year
Northern Goshawk	226	10/20	24	8/25–12/07	454 last year
Red-shouldered Hawk	4		1	10/8–10/19	
Broad-winged Hawk	9,516	9/21	3,734	8/17–10/21	record low count
Swainson's Hawk	6	9/04	2	September	
Red-tailed Hawk	8,532	10/20	1,540	8/14–12/12	9,275 in 1997; 9,678 in 1996
Rough-legged Hawk	525	11/14	92	10/8–12/13	345 last year
Golden Eagle	85	11/25	8	10/7–12/12	103 last year; 119 in 1996
American Kestrel	2,253	9/06	355	8/14–10/31	2,498 last year
Merlin	457	10/18	33	8/17–11/16	near record (460 in 1997)
Peregrine Falcon	69	9/23	9	9/11–10/31	record high 111 last year

enticed a **Peregrine Falcon** for several weeks. Among the best finds at Minnesota Lake was a **Piping Plover**, the first for Faribault County and the only one found in the state this fall. **Buff-breasted Sandpipers** were found at Minnesota Lake on both sides of the Blue Earth/Faribault county line, but elsewhere this species was hard to find, especially in Duluth where it is a regular fall migrant. **Red-necked Phalaropes** were apparently scarce this season, possibly because last fall's intensive surveys of sewage lagoons in the northwest region were not repeated. Unlike some previous records, the state's tenth **Red Phalarope** was clearly documented as a juvenile molting into first basic plumage.

Jaegers and **gulls** provided more excitement in Duluth than usual, especially in late September when at least seven species were present (***The Loon*** 71:114–115); one or two additional species were seen only on the Wisconsin side of the Superior Entry! Most unusual were the two **Sabine's Gulls** and an early **Black-legged Kittiwake**, all of which had been first found by Wisconsin birders. There were several unconfirmed reports of Iceland Gull in September, which most likely referred to the albinistic/leucistic **Ring-billed Gull** that spent several weeks in Duluth. The record early **Thayer's Gull** at the Superior Entry on the 25th of September was an adult, as expected.

Excellent documentation was provided for the two **Least Terns** on 12 September at Gabriel (a.k.a. Lone Tree) Lake, the fourth time this species has been found by Paul Egeland near the town of Cottonwood and the sixth record for Lyon County! Previous records near Cottonwood were 26 September 1970 and 10 August 1978 at Sham Lake, and 11–14 August 1985 in a flooded field just south of town. Minnesota now has approximately 16 records for this species, over half of which are from the southwest region!

The "northern" owls were scarce, especially the **Snowy Owl** which was not reported at all. Once again, there were relatively few reports of the **Short-eared Owl**. After an encouraging peak count of >10,000 last fall, numbers of the **Common Nighthawk** along the North Shore this August were depressing.

Like most previous Minnesota occurrences, the **Say's Phoebe** at the Resurrection Cemetery in Dakota County could not be relocated. Numbers of **Western Kingbirds** in Minnesota have remained down since 1993, compared to the previous ten years, making the two migrants at HRNR all the more interesting. Two **Scissor-tailed Flycatchers** appeared along the North Shore, where this Casual species is most likely to occur in the fall. Thanks to those observers who gave exact locations and numbers of **Loggerhead Shrikes** this fall; the reported total of 15 is reasonably accurate.

The **Carolina Wren** continued to make a comeback as expected, following the mild winter of 1997–98. Three **Mountain Bluebirds** and four **Townsend's Solitaires** were below average numbers. Like last fall, only three **Varied Thrushes** were reported and none was along the North Shore of Lake Superior. The **Sprague's Pipit** at Rothsay WMA was a serendipitous find in an unexpected location in late October; the lucky observers were rewarded with incredible views from close range.

Except for excellent numbers of the **Black-throated Blue Warbler** in east-central and southeast Minnesota, and record late dates for a few other species, warbler migration was uneventful. One exception was the **Prothonotary Warbler** found along the north shore of Mille Lacs in late August.

Like last fall, the **Summer Tanager** was found only along the North Shore in late October! Except for a late November sighting in Ramsey County, this season's records of the **Spotted Towhee** fall within an emerging pattern of late September/early October occurrences in southwestern Minnesota. Despite the well-documented appearance of a **Lark Bunting** in Richfield, its status became Casual by the end of 1998.

The famous impoundment at the 40th Avenue West/Erie Pier area in Duluth dried up in July; the subsequent profusion of weedy vegetation attracted incredible numbers and varieties of sparrows into early October. Among these was at least one **Nelson's Sharp-tailed Sparrow**. This species is rarely detected anywhere in Minnesota during migration and apparently departs the state early; one or two were also reported from three southern Minnesota locations this fall, including a first for Olmsted County that lingered for about two weeks! At least one **Smith's Longspur** spent about a week at 40th Ave. West in Duluth and another was found in Grand Marais. Smaller than usual flocks of Smith's were found in the usual western Minnesota locations.

The appearance of a **Brambling** at Audrey Ever's feeder in Hoyt Lakes on 23 October may have been related to the "tremendous irruption" of this species in British Columbia, where at least seven individuals appeared between late October and late November 1998 (*North American Birds* 53:92–93). Unfortunately, it could not be relocated after its initial day of discovery. It certainly must look tremendous next to Gray-crowned Rosy-Finch on the Ever's yard list!

Unconfirmed and Undocumented Reports: Pacific Loons on 18 October in Aitkin County (same bird as the one near Garrison in Crow Wing County?) and 14 November in Duluth; Mississippi Kite on 25 September in Wabasha County; Scissor-tailed Flycatcher on 9 October in Lake County; Lark Bunting(s) in Duluth on 28 September (40th Avenue West) and 1 October (Park Point). This section does not include records found Unacceptable by the Minnesota Ornithological Records Committee.

Released or Escaped Exotics: Egyptian Goose in Freeborn (ABa), Chinese Goose in Dodge (THF), Mandarin Duck in Hennepin (mob), and Ruddy Shelduck shot by a hunter on 14 November at Lake Hanska, Brown Co. (MDNR).

Weather Summary: Mostly dry and very mild conditions persisted until November. August was actually one–two degrees cooler than normal across the state. Temperatures throughout September were two–four degrees above normal in all regions and monthly precipitation was about one inch below normal statewide. October was similarly one–two degrees above normal and slightly drier than usual, except in the three north regions (northwest, north-central, northeast) where temperatures were close to normal and precipitation was slightly above average. November produced minimal snow cover but it turned decidedly cool with

KEY TO SEASONAL REPORTS

1. Species listed in upper case **(LEAST TERN)** indicate a Casual or Accidental occurrence in the state.
2. Dates listed in bold **(10/9)** indicate an occurrence either earlier, later or within the earliest or latest dates on file.
3. Counties listed in bold **(Aitkin)** indicate an unusual occurrence for that county.
4. Counties listed in underline **(Aitkin)** indicate a first county record.
5. Counties listed in italics *(Aitkin)* indicate a first county breeding record.
6. Brackets [ ] indicate a species for which there is reasonable doubt as to its origin or wildness.

The Season publishes reports 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.

all regions reporting below normal temperatures; these ranged from 2.5 degrees below normal in the northeast to 5.5 degrees below normal in the southwest.

Acknowledgments: Keen observers will notice the absence of Tom Tustison from this season's compilation; we all thank him for his past four years of hard work on the spring and fall seasonal reports. His emphasis on improving the accuracy of our data will be continued. Karl Bardon reviewed this report for continuity with the upcoming winter season; he also made recommendations that improved this report in other ways. Thanks to Kim Eckert and Anthony Hertzel for summarizing reports called in to the MOU "hotlines" in Duluth and the Twin Cities, respectively. Data from Hawk Ridge Nature Reserve were made available by Frank Nicoletti. Early and late dates were compiled by Robert Janssen with assistance from Paul Budde. Median arrival and departure dates were calculated from this data by Paul Budde.

2602 E. 4th St., Duluth, MN 55812.

Loons to Vultures

Red-throated Loon
Only report: 9/29 St. Louis (juvenile in Duluth) KB. Bardon considered the presence of a reddish throat patch somewhat unusual for a juvenile and referred to an illustration of this in the 1986 identification article by Appleby *et al.* (*British Birds* 79:365–391).

PACIFIC LOON
The **three** individuals seen off Park Point on 10/18 St. Louis KB, PS were unprecedented in number in one location. First county record **11/8 Itasca** (L. Winnibigoshish) PS, KSu. Singles were also reported 10/5–20 Mille Lacs AH, PS, 10/11–**11/12** Crow Wing AH, 10/11–**11/12** Lake KE *et al.*

Common Loon
Record high counts 10/20 on Mille Lacs L. (**1,688**) AH, 10/21 on L. Winnibigoshish (**1,599**) KSu, PS. Reported from 16 north and 10 south counties. See winter report for late migrants.

Pied-billed Grebe
Peak count 10/17 Anoka (143 on Coon L.) KB. Reported from 18 north and 34 south counties. Many December reports north and south (see winter report).

Horned Grebe
Early south 9/25 Hennepin PBu, 9/26 Olmsted DA/BE, 10/3 Freeborn ABa. No representative late north dates compared to the 13-year median departure date (11/19). Late south 11/29+ Hennepin SC, 11/30 Dakota SL; also see winter report.

Red-necked Grebe
Reported from sixteen north and three south counties. Late north 11/8 Cass PS and Lake LE, 11/26 Becker BK. No representative late south dates.

Eared Grebe
All reports: 8/18–20 Olmsted DA/BE, 8/30 Marshall JJ, 9/14–16 Dakota TT, mob, 10/3 Morrison MJ/DT.

Western Grebe
Peak count 8/10 Todd (489 on L. Osakis) KB. Reported from five north and nine south counties. Unusual location 9/30–10/4 St. Louis (Duluth) mob. Late north 10/24 Marshall JJ. Late south 11/28 Hennepin (L. Minnetonka) KB.

CLARK'S GREBE
Only report: 8/16 Big Stone (Thielke L.) KE *et al.*

American White Pelican
Peak counts 9/18 Hennepin (500) LE, 9/30 Jackson (400) MJC. Unusual reports 8/29 St. Louis (25 at HRNR) FN, 10/4 Houston (~200) FL with at least one lingering into December. Reported from 40 counties statewide.

Black-crowned Night-Heron, 1 August 1998, Minneapolis, Hennepin County. Photo by Vija Kelly.

Double-crested Cormorant
Peak counts 10/3 Lyon (515) RgS, 10/11 Beltrami (600) KB. Reported from 46 counties. Many individuals throughout the state lingered into December.

American Bittern
Reported from only six counties. Late south 10/23 Cottonwood ED, 11/1 Swift ABo.

Least Bittern
No reports.

Great Blue Heron
Peak count 9/29 Lyon (45) RgS. Late north 11/30–12/2 St. Louis JN. Reported from 58 counties statewide.

Great Egret
Peak count 9/14 Dakota (110) SWe. Reported from Otter Tail in the north and 29 south counties. Late south 10/24 Swift ABo, 10/25 Hennepin (1) TT, 10/28 Houston (1) EMF.

Snowy Egret
No reports.

Little Blue Heron
Only report: **10/7 Beltrami** (immature near L. Bemidji) DJo, PBD (***The Loon*** 71:48–49). Unexpected location and the latest date on record for Minnesota!

Cattle Egret
All reports: 8/1 Rice (3) FKS, BSe, 9/8 Hennepin (1) AH, 9/11 Grant (3) SWa.

Green Heron
Peak count 8/24 Polk (10) EF. Reported from 10 north and 21 south counties. Late north 9/20 Kanabec BA, 10/2 St. Louis JN. Late south 9/25 Dakota SWe, 10/10 Goodhue BL.

Black-crowned Night-Heron
Reported from two north and seven south counties. Late south 10/10 Hennepin TT, 10/11 Lyon RgS.

Yellow-crowned Night-Heron
No reports.

***PLEGADIS*, sp?**
All reports: 10/18 Chippewa and Swift (2) ABo, 10/25 Lac Qui Parle and Swift (1) ABo. These unidentified ibises were all seen at the Lac Qui Parle WMA and flew across the county line each time; total of two or possibly three individuals.

Turkey Vulture
Peak count 10/3 Hennepin (**500+**) RJ. Reported from 34 counties statewide. Late north 10/20 Cook PS, 10/27 HRNR FN. Late south 10/28 Stearns SWi/MV and Washington SL. Hawk Ridge total 1,357.

Waterfowl

Greater White-fronted Goose
Reported from only six counties, same as last fall. Early south 9/29 **Stearns** MJ/DT.

Unusual report 10/7 Itasca ABo. Late south 11/13 Olmsted RgS, 11/18 Cottonwood ED.

Snow Goose
Reported from 19 counties. Peak counts were unimpressive. Early north 9/11 St. Louis (1) SL, 10/4 Itasca BN and St. Louis PS. Early south (summering bird?) **8/21** Washington TEB, 9/12–19 Dakota mob, 10/2 Washington (75) RJ. Late north 11/13 Clay RO, 11/25 Otter Tail DST.

Ross's Goose
All documented reports: **9/22–23** Dakota (one on L. Byllesby) DBS *et al.*, 10/13 **Clay** (one with Snow Geese at Felton Prairie) KB, PS, 11/15+ Rice JLa, mob.

Canada Goose
Reported from 54 counties statewide. Unusually high numbers (e.g. 1,193 on 11/30) lingered on the St. Louis River JN.

Mute Swan
All reports: 10/11 Houston (Mississippi R.) EMF, 11/26+ Wright (near Cokato) PBu, TBr *et al.*, 10/1 Rice (two on L. Metogga) TBo.

[Trumpeter Swan]
Reported from at least 16 counties, including adults with young in LeSueur and Rice. Unusual report 9/22 Cook TEB. An injured bird was rescued from a wetland in Lac Qui Parle *fide* FE and taken by the MDNR for rehabilitation. Two groups of four to six swans spent most of November on Mille Lacs L. CMG, mob. **Note:** For all seasons, please indicate exact numbers of adults and young; except in winter, also give dates seen at breeding areas.

Tundra Swan
Early north 10/3 Clay RO, 10/10 Wadena PBi, 10/11 Beltrami KB. No representative early south dates. Reported from 28 counties statewide. No Minnesota peak counts greater than 1,000. Numbers were up at the Upper Mississippi River Wildlife and Fish Refuge (FL) but most of these were in Wisconsin waters. **Note:** Single swans or small groups of swans in any season, and all reports outside of usual migration dates, need documentation in order to minimize confusion with Trumpeter Swans.

Wood Duck
Reported from 45 counties statewide. Late north 10/24 Otter Tail mob and Wadena PBi, 10/28 St. Louis JN, 11/29 Clay (1) RO (also see winter report).

Gadwall
Reported from 30 counties statewide. Late north 11/15 Aitkin CB, 11/16 St. Louis (1) JN (same bird seen subsequently on Duluth CBC?), 11/29 Clay (1) RO.

American Wigeon
Reported from 29 counties. See winter report for late migrants north and south.

American Black Duck
Reported from five north and nine south counties. Unusual report 8/16 Big Stone (Thielke L.) KE *et al.*

Mallard
Peak count 11/21 Cottonwood (~1,000) ED. Reported from 40 counties.

Blue-winged Teal
Peak count 8/8 Faribault (1,200 at Minnesota L.) KB. Reported from 15 north and 31 south counties. Late north 10/23 Douglas NWi, 10/24 in three counties from the northwest region. Late south 11/30 Lyon RgS; also see winter report.

Northern Shoveler
Peak count 10/20 Lyon (220) RgS. Reported from 6 north and 21 south counties. Late north 10/24 Marshall JJ, 10/25 Polk WM, 11/29 Clay (3) RO; the latter lingered into January!

Northern Pintail
Reported from 24 counties. Late north 10/31 Aitkin CB, 11/17–12/4 Duluth (3) JN. See winter report for late south dates.

Green-winged Teal
Peak count 10/16 Faribault (1,500 at Minnesota L.) KB. Reported from 27 counties. Late north 10/31 Aitkin CB, 11/8 St. Louis (3) JN; see winter report for December dates in St. Louis.

Canvasback
Reported from 4 north and 12 south counties. Numbers up in the southeast region FL. No representative late north dates; see winter report.

Redhead
Peak counts 10/12 Pennington (500) KB, 10/24 Otter Tail (700) DS. Reported from 19 counties. See winter report for late dates north and south.

Ring-necked Duck
No significant peak counts. Reported from 30 counties. Late north 11/13 St. Louis JN, 11/16 Carlton LW. See winter report for additional late migrants.

Greater Scaup
Reported from only four north and five south counties. Only representative late north date: 11/23 Beltrami DJo. See winter report for additional migrants.

Lesser Scaup
Reported from 26 counties. See winter report for late dates north and south.

Harlequin Duck
Only reports: 10/3–26 St. Louis (Duluth) mob, 10/11 **Lake of the Woods** (two female/immatures at Rocky Point) KB, PS.

Surf Scoter
Only four reports from Lake Superior. Unusual reports from Mille Lacs L. on 10/11–20 Crow Wing (2) AH and 10/20 Aitkin (2) AH. Also seen 11/7–14 **Sherburne** (L. Mitchell) mob.

White-winged Scoter
Only two reports from Lake Superior. More reports than usual from Mille Lacs L., including 10/20 Aitkin (18) AH, 11/25 Crow Wing (Garrison) KB and 11/27 Mille Lacs (5) PS. Unusual St. Louis location on 11/8 (one on L. Vermilion) SS. All other reports: 10/25 Cass (11 on L. Winnibigoshish) KSu, PS, 11/3 Faribault (one on Wells lagoons) RG, 11/14 **Kandiyohi** (1) RE, RJF, and (no date) Houston FL.

Black Scoter, 25 October 1998, Ada, Norman County. Photo by Dennis Martin.

Black Scoter
Record high count 10/20 Aitkin (**230** on Mille Lacs L.) AH. Eleven reports from Lake Superior, including early arrivals on **9/24** St. Louis (5) mob. Eight reports away from Lake Superior, including **10/2** (earliest date south) Lyon KE *et al.*, 10/23 **Swift** (female at Lac Qui Parle WMA) ABo, 10/25 **Norman** (two at Ada lagoons) KE *et al.*, 10/29 **Goodhue** (female on L. Byllesby) DBS, 11/14 **Carver** (two on L. Waconia) mob.

Oldsquaw
Six reports from Lake Superior. Only reports south: (no date) Houston FL, 11/28+ **Meeker** (L. Ripley) DF.

Bufflehead
Peak count 11/24 on Mille Lacs L. (200+) KB. Reported from 23 counties. Early north (only date) 8/23 Roseau PS. Early south 10/18 Lyon RgS, 10/19 Hennepin TT and Olmsted DA/BE, 10/20 Swift ABo. Late north 11/30 Beltrami DJo and Crow Wing NJ; also see winter report.

Common Goldeneye
Peak count 11/8 Mille Lacs (~300) PS.

Reported from 31 counties.

Hooded Merganser
Peak count 11/21 Ramsey (450) KB. Reported from 21 counties. See winter report for late migrants.

Common Merganser
Peak count 11/27 on Lake Pepin (20,000) KB, mob. Reported from 24 counties statewide. Numerous south reports in mid-November, but none earlier than 11/7 Wabasha PBu, 11/11 Carver DN.

Red-breasted Merganser
Reported from 24 counties. Early south 10/29 Dakota DBS, 11/1 Hennepin SC. Late north 11/25 Aitkin KB, 11/30 Crow Wing NJ. Late south 11/21 Anoka (3) KB, 11/30 Ramsey DS. Also see winter report. This species has a narrow window of fall migration through southern Minnesota.

Ruddy Duck
Peak 10/20 Lyon (110) RgS. Reported from 24 counties. Late north 11/8 Grant SDM, 11/29 Clay RO. See winter report for additional late migrants.

Raptors

Osprey
Record season (total 575) at Hawk Ridge for the second consecutive fall. Reported from 24 counties. Late north 10/16 Cook TW, 10/18 St. Louis (HRNR) FN. Many south reports on 10/3. Late south 10/11 Washington DS, 10/24 Yellow Medicine RgS.

Bald Eagle
Reported from 50 counties. Peak count away from Hawk Ridge 11/1 Winona (40) JL.

Northern Harrier
Reported from 38 counties. Late north 11/8 Aitkin WN, 11/13 Kanabec AH and St. Louis (HRNR) FN.

Sharp-shinned Hawk
Reported from 40 counties. Early south 8/19 Houston EMF, 8/22 Hennepin SC, 8/28 Rice TBo. See winter report for late migrants.

Cooper's Hawk
Reported from 25 counties. Late north 11/11 Itasca BN, 11/16 St. Louis (HRNR) FN.

Northern Goshawk
Reported from eight north counties. Four reports south: 9/19 Dakota RH, 11/13 Dakota DBS, 11/15 Goodhue JL, 11/27 Olmsted DA/BE.

Red-shouldered Hawk
Reported within usual range from five north and nine south counties.

Broad-winged Hawk
Reported in low numbers from 9 north and 13 south counties. Late north 10/10 Wadena PBi, 10/21 St. Louis (HRNR) FN. Late south 10/10 Stearns MJ/DT. Including 3 adult dark-morphs, the Hawk Ridge seasonal total of **9,516** was a record low count (previous low was ~12,600 in 1987). Numbers also down at the Reno hawk watch in Houston Co. FL *et al.*, where only about 50 were counted during peak migration 9/18–21.

Swainson's Hawk
Reported from three north and six south counties. No reports after September.

Red-tailed Hawk
Reported from 67 counties. Among the total of 8,532 at Hawk Ridge were seventy dark-morphs, one adult "Harlan's Hawk" on 10/20, two adult "Krider's Hawks" and two partial albinos.

Rough-legged Hawk
Reported from 8 north and 17 south counties. Early north 9/27 Becker BK, 10/8 St. Louis (HRNR) FN. Early south 10/4 Anoka DS, 10/21 Freeborn ABa.

Golden Eagle
Early north 10/7 St. Louis (HRNR) *FN, 10/*12 Roseau (Warroad) KB, PS, 10/13 Polk (Crookston) KB, PS. Early south 10/10

Nobles and Rock AH. Also reported from Becker, Mille Lacs, Aitkin, Carlton, Lake.

American Kestrel
Reported from 47 counties. Numbers up in northwestern Beltrami DJo.

Merlin
Reported from 13 north and 11 south counties. Eight reports of *richardsonii* including an early migrant 8/15 Chippewa KE *et al.* and a female/immature at HRNR on 10/13 (FN). Other "Prairie Merlins" away from their usual western Minnesota range were 9/29 Houston FL, 10/12 Hennepin TT.

Peregrine Falcon
Reported from 14 counties. All north reports: Marshall, Becker, Pine, St. Louis.

Prairie Falcon
Only reports: 8/16 Clay (Felton Prairie) RO, 10/15+ Hennepin (airport and along Hiawatha Ave.) LE, mob.

Partridges to Cranes

Gray Partridge
Reported from Wilkin, plus 14 south counties.

Ring-necked Pheasant
Reported from 6 north and 32 south counties.

Ruffed Grouse
Reported from 16 north and 4 south counties.

Spruce Grouse
All reports: 10/10 St. Louis (Comstock Lake) DEv, ME, (no date) Lake *fide* KE.

Sharp-tailed Grouse
Reported from six north counties: Kittson (~30) PS, Roseau (11) KB, PS, Beltrami (7) DJo, Aitkin (max. 16 on 8/22) WN, CB, Itasca CB, and St. Louis (4) AE.

Greater Prairie-Chicken
All reports: Clay, Wilkin (80+) mob.

Wild Turkey
Reported from 18 south counties, plus 8/6 Becker (hen with nine young) BBe.

Northern Bobwhite
No reports.

Yellow Rail
No reports.

Virginia Rail
Late south 9/23 Freeborn (dead) ABa, 9/26 Olmsted DA, BE, 10/18 Hennepin (Old Cedar Avenue) SC, 10/22 Hennepin TT.

Sora
Late north 9/18 Todd JSK/SDu, **10/26** St. Louis JN, **11/19** (second latest date for the state) Itasca (videotaped at a compost pile) SH. Late south 9/18 Yellow Medicine RgS, 9/26 Olmsted DA, BE, 10/9–11 Hennepin TT, SC.

Common Moorhen
No reports.

American Coot
Late north 10/25 Morrison MJ/DT, 11/30 St. Louis JN. Unusual report of a partial albino in concentration of 25,000+ coots on 11/8 Pope SDM.

Sandhill Crane
Late north 10/24 Marshall JJ, 10/25 Morrison MJ/DT, 11/29 St. Louis AE. Late south 10/4 Anoka JH, 11/21 Stearns MJ/DT. Peak count 10/12 Kittson (870) KB, PS.

Shorebirds

Black-bellied Plover
Late north 10/12 Marshall (6) PS, 10/13 Polk (49) KB, PS, 10/24 St. Louis (1) TT. Late south 11/1 Faribault JDa, 11/7 Lac Qui Parle DN, **11/25** (record late date) Dakota (2) DBS. Peak count 10/10 Faribault (90 at Minnesota Lake) JDa.

American Golden-Plover
Late north 10/9 Aitkin CB, 10/13 Cook KMH and Polk KB, PS. Late south 10/13

Hennepin TT, 10/21 Hennepin SC, 11/3 Faribault RG. Peak counts 9/12 Faribault (200) JDa, 10/4 Lyon (107) RgS.

Semipalmated Plover
Late north 9/5 Marshall JJ, 10/15 St. Louis KE. Fewer reports than usual. No representative late south dates when compared to the 13-year median departure date (9/28).

Piping Plover
Only report: **9/7 Faribault** (Minnesota Lake) LE.

Killdeer
Peak counts 8/9 Anoka (**182** in one location, plus 172 at two other sites) KB, 9/12 Lyon (150) RgS. Late north 10/2 St. Louis JN, 10/10 Aitkin WN, 10/17 Lake BSe. See winter report for late south dates.

American Avocet
All reports: 8/9 Meeker (1) RTF, 8/22 Faribault (4) MT.

Greater Yellowlegs
Late north 10/18 St. Louis KB, 10/24 Polk, St. Louis and Wilkin mob. Late south 11/6 LeSueur RJ, 11/7 Houston FL, 11/16 Olmsted BE.

Lesser Yellowlegs
Late north 9/29 St. Louis CB, 10/25 Polk WM. Late south 10/21 Hennepin SC, 10/31 Lac Qui Parle DN, 11/1 Faribault JDa.

Solitary Sandpiper
Late north 9/17 Cook KMH, 9/30 St. Louis NJ, 10/4 Carlton LW. Late south 10/4 Hennepin TT, 10/11 Olmsted CH.

Willet
Only report: **9/11** Big Stone (1) MRN.

Spotted Sandpiper
Late north 9/19 Wadena PBi, 9/21 Cook TEB, 9/28 St. Louis KB. Late south 9/26 Scott WM, 10/3 Washington TEB, 10/19 Olmsted DA, BE.

Upland Sandpiper
All reports: 8/2 Lincoln and Rock KSu, PS, 8/3 Redwood RJ, 8/9–11 Clay mob, 8/12 Dakota KB, 8/13 Lincoln MRN.

Whimbrel
All reports were single birds: 9/5 St. Louis KB, 9/17–23 St. Louis mob.

Hudsonian Godwit
All reports: 8/9–14 Clay (max. 5) mob, 9/6 Big Stone (3) LE.

Marbled Godwit
All reports: 8/9–22 Clay (max. 9) mob, 8/23 Cottonwood (1) ED.

Ruddy Turnstone
All reports: 8/22 Marshall JJ, 8/24 Faribault FL, 9/5–7 St. Louis mob, 10/10 St. Louis KB.

Red Knot
Only report: mid-September **Stearns** (near Belgrade, date uncertain) PKL.

Sanderling
Late north 8/26 Wadena RJ, 9/5 Marshall JJ and St. Louis KB. Late south 9/11 Hennepin SC, 10/4 Lyon RgS, 11/1 Faribault JDa.

Semipalmated Sandpiper
Only representative late north date: 10/12 Polk KB. Late south 10/10 Faribault JDa, 10/17 Lyon RgS, **10/28** Dakota DBS. See summer report for peak count.

Least Sandpiper
Late north (only October date) 10/24 Polk NWi. Late south 10/24 Hennepin SC, **11/1** Faribault JDa, **11/3** LeSueur RJ. Peak count 9/6 Faribault (**414** at Minnesota Lake) KB.

White-rumped Sandpiper
No representative late north dates; in recent years, this species has been found in small numbers along the North Shore in late October. Late south 8/25 Sherburne TEB, 9/22 Olmsted DA, BE.

Baird's Sandpiper
Late north 9/2 St. Louis AE, 9/6 Clay

GEN, 10/13 Polk PS. Late south 9/17 Hennepin SC, 9/22 Olmsted DA, BE, 11/1 Faribault JDa.

Pectoral Sandpiper
Late north 10/25 Polk WM, 11/6 St. Louis JN. Late south 11/2 Lyon RgS, 11/6 LeSueur RJ, **11/25** (ties record late date) Dakota DBS. Peak counts 8/8 Faribault (350 at Minnesota Lake) KB, 10/13 Polk (304 at Crookston) KB.

Dunlin
Late north 10/10 St. Louis KB, 10/25 Polk WM. Late south 10/24 Hennepin SC, 11/1 Faribault JDa.

Stilt Sandpiper
Late north 9/6 Clay GEN, **10/23–25** Polk (2) mob. Late south 9/11 Hennepin TT, 10/10 Faribault JDa. Peak count 9/6 Big Stone (**197** at Marsh Lake) LE.

Buff-breasted Sandpiper
All north reports: 8/25 Lake (1) JLi, 8/29 Lake (3) JLi, 8/9–14 Clay (max. 12) mob, 8/22–30 and 9/6–7 Clay (max. 2) mob, 9/23 St. Louis (1) *fide* KE. Very scarce in Duluth, where usually found each fall. Reported from seven south counties; late south 9/13 Faribault LE, 9/20 Carver NWi. First county records 8/13 **Blue Earth** (Minnesota Lake) RJ, 8/16 **Faribault** (24 at Minnesota Lake) SR, 8/22 **Dodge** (6 at Durst Pond) DA, BE.

Short-billed Dowitcher
Late north 8/11 Polk KB, 8/14 Clay (5) CGj, 8/30 St. Louis ABo. Late south 8/16 Carver (10) LE, 9/8 Meeker RJ, 9/18 Lyon RgS.

Long-billed Dowitcher
Late north 10/25 Polk WM, **10/27** St. Louis KE. Late south 10/24 Lyon RgS, 11/1 Faribault (35) JDa. Peak count 10/16 Faribault (**158** at Minnesota Lake) KB.

Common Snipe
Late north 10/24 Lake TEB, 11/1 Aitkin CB, 11/7 (subsequently overwintered) St. Louis JN.

American Woodcock
Late north 10/21 Cook KMH, 10/24 Todd JSK/SDu. Late south 10/13 Meeker MRN, 10/22 Brown JSp, 11/1 Cottonwood ED.

Wilson's Phalarope
Late north 8/30 Clay RO, 8/31 Pennington JJ. Late south 9/6 Carver KB, 9/12 Faribault JDa and Lyon RgS. Only significant concentration: 8/9 Big Stone (97 at Beardsley) PS.

Red-necked Phalarope
Late north 8/23 Roseau (15) PS, 8/24 Clearwater (2) RJ, 8/27–9/6 Clay (max. 5) mob. Late south 9/6 Carver KB and Faribault (13) mob, 10/1 Olmsted DA, BE, **10/10** Faribault JDa. Reported in relatively low numbers from only 13 counties; peak count 8/22 Kandiyohi (19) mob.

RED PHALAROPE
Tenth state record 10/23–24 **Polk** (juvenile at the Crookston lagoons) PS, mob.

Jaegers to Terns

Parasitic Jaeger
All Duluth reports: 9/7–28 (at least two adult light-morphs plus one jaeger, sp?) mob, 10/16 (adult intermediate morph) FN *et al.*, 10/20 (age?) *fide* KE. Minimum of three and more likely four or more individuals for the season. Most unusual was an unidentified jaeger harassing thousands of Bonaparte's Gulls on Lower Red Lake, Beltrami Co. in late August (***The Loon*** 70:243).

Franklin's Gull
Unusual reports 8/22 Itasca (Lake Winnibigoshish) PS, 9/25 (adult) and 9/26–10/5 (first-winter) St. Louis (Duluth) mob. Late north 10/13 Polk KB, 11/7 Otter Tail DS, 11/8 Grant SDM. Late south 11/19 Jackson and Sibley KB, **11/26** Rice TBo. Peak count 9/25 Lyon (3,770) RgS. The massive displacement eastward that was detected along the Lower Great Lakes in mid-November (*North American Birds* 53:12–19) did not materialize in Minnesota.

Immature Franklin's Gull, 26 September 1998, Duluth, St. Louis County. Photo by Peder Svingen.

Little Gull
Only report: 9/14–21 Aitkin (adult on Mille Lacs Lake) TJ, mob.

BLACK-HEADED GULL
One adult in basic plumage **10/29** Jackson (Spirit Lake) AH, probably the same individual that had been reported in Iowa. **Note**: Erroneous date shown in photo caption (***The Loon*** 70:241).

Bonaparte's Gull
Lingered into December on Mille Lacs L. Late south 11/19 Jackson, McLeod, and Sibley KB; also see winter report. Record high count of approximately **5,000** on 8/27 Beltrami (Lower Red Lake) DJo (***The Loon*** 70:243).

Ring-billed Gull
See winter report for late north migrants; unusually high numbers lingered into December on Mille Lacs L. and at Canal Park in Duluth.

Herring Gull
See winter report for late north migrants. Peak count 10/14 St. Louis (2,888) KB.

Thayer's Gull
Early north **9/25** (earliest date on record) St. Louis (adult) PS, **9/28** St. Louis (adult, same bird?) KB. Early south **9/30** Hennepin (adult) PBu. First county record 11/23–25 **Wright** (adult and first-winter at Buffalo Lake) KB, RG, RJ. Peak count 11/28 Dakota (**11**) KB. Also reported from Cook, Rice. See winter report for late dates north and south.

ICELAND GULL
All reports: **11/14** St. Louis (second-win-

ter) PS, **11/16** Cook (first-winter) AH, PS, 11/28 St. Louis (adult and first-winter) PS.

LESSER BLACK-BACKED GULL
All reports: 10/14–15 **St. Louis** (third-winter at the Superior Entry) KB, PS, 10/21–11/19 and 11/28+ Hennepin (fourth-winter or adult at Lake Calhoun) PBu, mob, 11/27 Dakota (third-winter, Inver Grove Heights) KB, 11/28 Dakota (adult in Burnsville) KB.

Glaucous Gull
Reported **10/18** Cook TW, 11/7 St. Louis PS, 11/10 Cook AH, 11/27 Hennepin ABo.

GREAT BLACK-BACKED GULL
Only documented report: **11/8** Hennepin (first-winter on Lake Calhoun) PBu. **Note**: Erroneous date in proceedings article (***The Loon*** 71:38).

SABINE'S GULL
Only report: 9/24 St. Louis (two juveniles off Park Point) mob. These two plus two more initially had been found on the Wisconsin side of the Superior Entry.

BLACK-LEGGED KITTIWAKE
Reported **9/24–26** St. Louis (first-winter off Park Point) PS, AH. This individual also had been found initially on the Wisconsin side of the Superior Entry.

Caspian Tern
Late north 10/12 Itasca PS, 10/14 Cass KB, **10/27** Mille Lacs AH. Late south 9/28 Hennepin SC, 10/1 Rice TBo, 10/6 Dakota DBS.

Common Tern
Late north 9/3 Aitkin WN, 10/5 Mille Lacs AH. Peak counts 8/23 Lake of the Woods (120) and Roseau (160) PS. Late south 10/3 Jackson MJC, 10/2–4 Lyon (max. 8) KE, RgS, **10/20** Swift ABo.

Forster's Tern
Late north 10/12 Roseau KB, **10/18** Lake KE. No representative late south dates; last reported 9/16 Rice JL.

LEAST TERN
Reported **9/12** Lyon (two at Gabriel Lake) PE.

Black Tern
Late north 8/31 Marshall JJ, 9/3 Aitkin WN. Late south 9/6 Brown JSp, 9/8 Pope RJ.

Doves to Kingfishers

Rock Dove
Reported from 20 north and 29 south counties.

EURASIAN COLLARED-DOVE
Many unsubstantiated claims of up to five birds in **Lyon** (Lynd) throughout the second half of November. At least three were finally documented 11/27 by PBu *et al.* Despite the recent spread of this species into the Midwest, this represents only the second Minnesota record. Observers are encouraged to always exclude the very similar Ringed Turtle-Dove by carefully documenting plumage and voice whenever possible.

Mourning Dove
Reported from 18 north and 37 south counties. Peak count 8/10 Todd (**132** in Osakis) KB.

Black-billed Cuckoo
All north reports: 8/8 Lake TT, 8/11 Aitkin CB, 8/23 St. Louis KSu, BY. Late south 9/8–9 Ramsey TT, 9/14 Hennepin LE, 9/29 Rice TBo.

Yellow-billed Cuckoo
No north reports. All south reports: 8/1 Fillmore (3) FL, 9/16 Houston EMF, 9/18 Houston FL, RJ, and 9/21 Olmsted DA, BE.

Eastern Screech-Owl
Reported from two north and seven south counties.

Great Horned Owl
Reported from 12 north and 22 south counties.

Snowy Owl
No reports.

Northern Hawk Owl
No reports.

Barred Owl
Reported from 11 north and 20 south counties.

Great Gray Owl
Seen in Aitkin on several August dates and 11/1–15 WN. Also reported 11/8 St. Louis (Sax-Zim bog) *fide* KE, 11/26 Cook (Gunflint Trail) *fide* KE.

Long-eared Owl
All reports: 9/17 Hennepin SC, 10/2 Crow Wing AH, 11/11 Otter Tail SDM, 11/14 Scott LE.

Short-eared Owl
All north reports: 10/17 St. Louis FN, 10/24–28 Wilkin (up to four owls near Rothsay WMA) mob, 10/28 Wilkin (one at Breckenridge lagoons) *fide* AH. All south reports: 9/21 Hennepin (airport) PBu, 10/22 Cottonwood ED, 11/15 Scott (Rice Lake) LE.

Boreal Owl
Only report: one found dead 11/9 St. Louis (Duluth) AH.

Northern Saw-whet Owl
All reports: St. Louis mob, 10/31 Hennepin CMa, 11/23–24 Rice TBo.

Common Nighthawk
Late north 9/19 Becker BK and Wadena PBi, **10/10** Otter Tail SDM. Peak counts much lower than usual: 8/23 St. Louis (2,501) JN, 8/24 Lake (1,140) JLi. Late south 9/17 Dakota, 9/18 Hennepin TT, 9/23 Olmsted CH.

Whip-poor-will
No reports.

Chimney Swift
Late north 8/20 Carlton LW, 8/29 St. Louis TW, 9/12 Wadena PBi. Late south 9/4 Anoka RH, 9/19 Brown JSp, 10/5 Hennepin TT.

Ruby-throated Hummingbird
Late north 9/23 Cook KMH, 10/5 St. Louis (Duluth) ME, DEv, **10/7** Aitkin (Wealthwood) CMG. Late south 9/27 Washington TEB, 9/28 Hennepin PBu, 10/3 Hennepin LE. An unidentified hummingbird, most likely a *Selasphorus* species, was exceptionally late on 11/4 in Duluth *fide* KE.

Belted Kingfisher
Reported throughout the state to the end of the period.

Woodpeckers to Flycatchers

Red-headed Woodpecker
Late north 10/18 Becker BK, 10/20 **Cook** KMH, 11/6 Aitkin ABo. Unusual location 8/31, 9/5, 9/20 St. Louis (HRNR) FN. Reported from at least 24 south counties.

Red-bellied Woodpecker
Reported from 10 north and 28 south counties.

Yellow-bellied Sapsucker
Late north 10/7 Becker BK, 10/10 Wadena PBi, 11/1 Aitkin RgS. Late south 11/1 Hennepin RJ, 11/27 Chisago RH, 11/28 Nicollet LF.

Downy Woodpecker
Reported from 21 north and 38 south counties.

Hairy Woodpecker
Reported from 16 north and 31 south counties.

Three-toed Woodpecker
No reports.

Black-backed Woodpecker
All reports: 9/19 and 10/3 Itasca ABo, 10/17 Lake BSe, 10/27 Hubbard (2) DJo, 9/12, 10/27 and 11/4 Cook KMH, plus a seasonal total of eight at HRNR 9/15–11/1 St. Louis FN, mob.

Northern Flicker
Late north 10/11 Aitkin WN, 10/20 St. Louis LW, 11/29 Clay RO. A "Red-shafted" form was seen 9/24 Hennepin (Brooklyn Park) OJ.

Pileated Woodpecker
Reported from 14 north and 24 south counties.

Olive-sided Flycatcher
Early south 8/2 Scott ABo, 8/3 Hennepin TT, and 8/5 McLeod RbS. Late north 8/22 Clay RO and Beltrami DJo, 8/24 Pennington RJ, 9/6 Aitkin WN. Late south 9/5 Dakota DBS, 9/7 Brown JSp, 9/20 Ramsey TT.

Eastern Wood-Pewee
Late north 9/7 Aitkin WN, 9/13 Beltrami DJo, 9/15 Carlton LW. Late south 9/28 Lyon RgS, 10/1 Washington DS, 10/4 Hennepin JDa.

Yellow-bellied Flycatcher
All reports of vocalizing birds: 8/5 Dakota KB, 8/31 Hennepin LE.

Acadian Flycatcher
Only report: 8/2 Rice TBo.

Alder Flycatcher
Late north 8/2 Cass MRN, 8/11 Clay KB, and 8/16 Aitkin WN. Late south 8/15 Brown JSp, 8/20 Hennepin SC, and 9/4 Brown JSp.

Willow Flycatcher
No north reports. Late south 8/1 Rock KSu, PS, 8/2 Dakota TT, 9/7 Dakota TT. **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.

Least Flycatcher
Late north 8/31 Cook KMH, 9/7 Aitkin WN, 9/16 Beltrami DJo. Late south 9/6 Dakota TT, 9/14 Hennepin LE, 9/17 Brown JSp.

Eastern Phoebe
Late north 10/3 Wadena PBi, 10/12 Cook KMH, 10/16 Kanabec BA. Peak 10/8 Jackson MJC. Late south 10/16 Watonwan DBr, 10/17 Brown JSp and Houston DN, 11/3 Houston EMF.

SAY'S PHOEBE
Only report: 9/3 **Dakota** (Resurrection Cemetery) TT.

Great Crested Flycatcher
Late north 9/16 Beltrami DJo, 9/19 Wadena PBi. Late south 9/17 Scott RJ, 9/20 Hennepin SC, 9/23 Washington DS. Apparently departed the state earlier than usual.

Western Kingbird
Few north reports. Unusual location and dates: 9/20 and 9/27 St. Louis (HRNR) FN. Late south 8/15 Swift WM, 8/16 Hennepin WM, **9/24** Yellow Medicine RgS.

Eastern Kingbird
Late north 9/7 Aitkin WN, 9/18 Beltrami PBD, 9/19 Wadena PBi. Late south 9/9 Hennepin SC, 9/12 Lyon RgS, 9/26 Rice JL. An amazing **200** were estimated 8/30 Jackson MJC.

SCISSOR-TAILED FLYCATCHER
Two documented reports: 9/29 Cook (Tofte) DSp, **10/24** Cook (Grand Marais) TBr, SR.

Shrikes to Swallows

Loggerhead Shrike
All north reports: 8/4 Clay (one near Downer) RO, 8/16 Clay (two at Felton Prairie) RO, 10/3 Wilkin SDM, DST. All south reports: 8/6 Washington (Cottage Grove) TEB, 8/12 Washington (White Bear Twp.) *fide* AH, plus at least nine birds reported 8/1–12 Dakota mob. Most of the latter were in Vermillion Twp. along Emery Avenue, between 160th and 180th Streets. **Note**: Please continue to give exact locations and numbers for all seasons (per instructions on Seasonal Report form) so that accurate numbers can

be determined.

Northern Shrike
Early north 10/9 Lake *fide* KE, 10/17 Aitkin WN and St. Louis FN, 10/18 Wilkin SDM. Peak count 10/20 at HRNR (9) FN. Early south 10/17 Hennepin TT, 10/20 Swift ABo, 10/28 Dakota TT.

Bell's Vireo
All reports: 8/2 Dakota (Black Dog Lake) TT, 8/10 Winona (two at Prairie Island) CS, 8/29 Waseca (Otisco Twp.) JSe.

Yellow-throated Vireo
Late north 9/4 Aitkin WN, 9/7 Aitkin (Tamarack) CB, 9/12 Wadena PBi. Late south 9/19 Brown JSp, 9/20 Dakota LE and Ramsey TT, 10/1 Hennepin SC.

Blue-headed Vireo
Early south 8/21 Rice JLa, 8/28 Hennepin LE, 8/29 Waseca JSe and Olmsted DA, BE. Late north 9/18 Cook KMH, 9/22 Beltrami DJo, 10/3 St. Louis AE. Late south 10/3 Brown JSp, 10/4 Olmsted DA, BE, 10/13 Hennepin SC.

Warbling Vireo
Late north 9/2 St. Louis KB, 9/5 Pennington JJ, 9/7 Aitkin WN. Late south 9/18 Hennepin LE, 9/20 Brown JSp and Hennepin SC, 9/25 Anoka TBr and Hennepin TT.

Philadelphia Vireo
Early south 8/15 Hennepin SC, 8/21 Rice TBo, 8/22 Olmsted DA, BE. Late north 9/10 St. Louis AE, 9/11 Aitkin CB, 9/12 Carlton LW. Late south 9/22 Carver RJ, 9/26 Carver TBr, 10/1 Hennepin SC. Increased numbers reported by SC, RJ, FL.

Red-eyed Vireo
Late north 9/20 in four counties mob, 9/24 Beltrami DJo, 9/26 Itasca ABo. Late south 9/26 Carver WM, 9/28 Stearns MJ/DT, 10/6 Hennepin SC.

Gray Jay
Reported throughout the normal range. Only one was seen the entire season at HRNR in Duluth.

Blue Jay
Reported throughout the state.

Black-billed Magpie
Reported throughout the normal range, including 11/16 Becker BBe and two reports from Itasca ABo. Peak count 10/10 Aitkin (16) WN.

American Crow
Reported throughout the state.

Common Raven
Reported throughout the normal range, including Anoka JH. Peak 10/21 St. Louis (140 at HRNR) FN; Hawk Ridge total of 2,039 for the season.

Horned Lark
Reported throughout the state. Peak counts 11/5 St. Louis (~100) JN, 10/24 Lyon (86) RgS.

Purple Martin
Late north 9/7 Clay (50) RO, 9/7 Aitkin WN, 9/12 Wadena PBi. Peak count 9/5 Washington (100+) DN. Late south 9/16 Lyon RgS, 10/3 Anoka DS.

Tree Swallow
Peak migration 8/21 Cass MRN. Late north 10/3 Clay (20) RO, 10/4 Becker DN, 10/5 Aitkin (1) AH. Late south 10/8 Lyon RgS, 10/9 Winona RJ, 10/20 Houston FL.

Northern Rough-winged Swallow
Only north report after August: 9/3 Wadena PBi. Late south 9/25 Dakota TT, 10/2 Anoka RH, 10/3 Lyon RgS.

Bank Swallow
Late north 8/25 Red Lake RJ, 9/12 Wadena PBi, 9/14 Aitkin WN. Late south 9/25 Hennepin TT, **10/8** Lyon RgS, **10/10** Rock (5) AH.

Cliff Swallow
Late north 9/5 Marshall JJ, 9/12 Wadena PBi, 9/14 Aitkin WN. Only representative

late date south: 10/4 Lyon RgS.

Barn Swallow
Record high count 8/14 Lyon (**1,020**) RgS; MRN also reported "hundreds" during peak migration 8/26 Waseca, 8/28 Brown. Late north 10/3 Clay RO, 10/6 Todd JSK/SDu, 10/22 St. Louis (two at HRNR) FN *et al.* Late south 10/12 Lyon RgS, 10/18 Swift ABo, 10/24 Hennepin SC.

Chickadees to Gnatcatchers

Black-capped Chickadee
Reported throughout the state.

Boreal Chickadee
Reported from four counties within the normal range.

Tufted Titmouse
Reported from the southeast region in Fillmore, Houston.

Red-breasted Nuthatch
Reported throughout the state.

White-breasted Nuthatch
Reported throughout the state.

Brown Creeper
Reported throughout the state. Record (?) high count 9/20 St. Louis (**16**) BSe.

Carolina Wren
All reports: 8/18 throughout the season in Olmsted (Rochester) *fide* AH, late August in Hennepin (Bloomington) mob, 9/22–26 **Chisago** (Interstate Park) BSe, 11/21 Hennepin (Golden Valley) ES.

House Wren
Late north 9/11 Beltrami DJo, 9/18 Todd JSK/SDu. Late south 10/9 Anoka RH, 10/11 Ramsey JDa, 10/13 Hennepin SC.

Winter Wren
Early south **8/31** McLeod RbS, 9/4 Hennepin LE, 9/12 Brown JSp. Late north 10/17 Lake BSe, 10/19 Carlton LW, 10/20 St. Louis JN. Late south 10/25 Brown JSp, 11/9 Hennepin TT, 11/19 Hennepin SC.

Sedge Wren
No representative north dates, when compared to the 10/5 median departure date over the past 13 years. Late south (only October dates) 10/7 Hennepin TT, SWe, 10/9 Houston FL.

Marsh Wren
No representative north dates, when compared to the 10/4 median departure date over the past 13 years. Peak count 9/17 Lyon (16) RgS. Late south 10/26 Hennepin (3) LE, 11/1 Faribault JDa, 11/15 Hennepin (Old Cedar Avenue) SC.

Golden-crowned Kinglet
Reported throughout the state.

Ruby-crowned Kinglet
Early south 8/29 Hennepin SC, 8/30 Rice TBo, 8/31 Hennepin OJ and Olmsted DA, BE. Peak 10/2 Lyon (23) RgS. Late north 10/24 Otter Tail WM and Cook TBr, 10/25 Morrison MJ/DT, 10/26 St. Louis JN. Late south 10/31 Hennepin SC, 11/4 Brown JSp and Ramsey TBr, 11/7 Hennepin TT.

Blue-gray Gnatcatcher
All north reports: 8/1 Crow Wing (2) PP, 8/12 Aitkin CMG, 8/16 Aitkin WN, 8/31 Becker (1) BBe, 9/8 Becker (1) BK. The absence of late fall reports from the North Shore of Lake Superior is unusual for recent years. Late south 9/7 Hennepin SC, 9/13 Anoka RH, 9/18 Hennepin LE and Houston mob.

Bluebirds to Waxwings

Eastern Bluebird
Late north 10/25 Otter Tail DS, 10/31 Cook WM, 11/1 Aitkin WN. Many south reports through the end of the period; see winter report for late migrants. Record high count 10/24 Nicollet (**150**) BBo; additional counts of **61** on 10/13 at HRNR in Duluth (FN) and the same number on 10/18 along Old Cedar Avenue in Hennepin Co. (TT) were also noteworthy.

Townsend's Solitaire, 17 October 1998, Duluth, St. Louis County. Photo by Peder Svingen.

Mountain Bluebird
All reports: 9/21 Kanabec (male near Mora) AH, 10/20 Lake (female) PS, KE, **10/23 Chippewa** (female) ABo.

Townsend's Solitaire
All reports: 10/16–17 St. Louis (New Duluth) JN *et al.*, 10/23 Becker (Tamarac NWR) BBe, 11/25 St. Louis (HRNR) DEv, DG. One reported without details on **10/20** was early south and would be the first Stearns Co. record in over 50 years!

Veery
Late north 9/6 St. Louis (Hoyt Lakes) AE, 9/7 St. Louis (Duluth) KB, 9/12 Wadena PBi. Only representative late south date: 9/14 Hennepin TT. Like last fall, there were only a dozen or so reports of this species.

Gray-cheeked Thrush
Total of only 13 reports statewide. Early north 9/6 St. Louis AE. Early south 8/29 Hennepin RH, 9/2 McLeod RbS. Late north 9/27 Carlton LW and St. Louis LE, 10/17 Lake BSe. Only October report south: 10/9 Mower RRK.

Swainson's Thrush
Early south 8/10 Anoka TBr, 8/12 Anoka KB, 8/20 Hennepin SC. Late north 10/2 St. Louis JN, 10/9 Beltrami DS, 10/17 Lake BSe, PS. Late south 10/17 Hennepin TT, 10/20 Lyon RgS, 10/24 Chippewa (1) ABo.

Hermit Thrush
Early south 9/9 Hennepin SC, 9/12 Jackson MJC and Hennepin OJ, 9/16 Brown JSp. Late north 10/10 Aitkin CB, 10/18 Lake LW and St. Louis JN, 10/19 Cook KMH. Late south 11/1 Hennepin SC and Olmsted CH, 11/7 Hennepin TT, 11/17 Rice TBo.

Wood Thrush
All north reports: 8/5 Todd JSK/SDu, 8/28 Carlton LW. Late south 8/31 Olmsted DA/BE, 9/16–17 Hennepin TT, 9/23–24 and 9/26 Hennepin SC.

American Robin
Reported throughout the state.

Varied Thrush
Only reports: 11/4–25 Crow Wing (male) mob, 11/11 Becker (Lake Ida) BBe, 11/11–14 Hubbard (Spider Lake) JMW.

Gray Catbird
Fewer reports than usual. Late north 10/10 Cass MRN, 10/17 Lake BSe and Cook BL, 10/21 Beltrami DJo. Late south 10/12 Lyon RgS, 10/26 Hennepin (Old Cedar Avenue) LE, 11/1–21 Hennepin (Bass Ponds, overwintered) mob.

Northern Mockingbird
All reports: through 8/3 Pipestone (see summer season) RJ, 9/17 Ramsey *fide* AH, 10/25 Cook (Taconite Harbor) AH.

Brown Thrasher
Very few north reports; one lingered through the end of the period at a Duluth feeder *fide* KE. Late south 10/24 Lyon RgS, 10/30 McLeod RbS, 11/14 McLeod

(different bird, overwintered) RbS and Rice TBo, JL.

European Starling
Reported throughout the state.

American Pipit
Early north **8/30** Clay RO, 9/6 St. Louis (HRNR) FN, 9/7 St. Louis KB. Early south 9/8 Meeker RJ, 9/12 Brown BBo and Hennepin TT. Late north 10/31 Carlton LW, 11/1 Aitkin WN, **11/20** (ties latest north date) Pine RJ. Late south 10/13 Lyon RgS, 11/1 Faribault JDa and Hennepin SC, **11/26** Rice JL.

SPRAGUE'S PIPIT
One seen and heard **10/24–25** Wilkin (Rothsay WMA) KE *et al.* was record late for Minnesota (***The Loon*** 71:53–54).

Bohemian Waxwing
Early north **9/21** St. Louis (Hoyt Lakes) AE, 10/3 Beltrami DJo, 10/7 St. Louis LW. Peak counts 11/16 St. Louis (465) FN, 11/21 Aitkin (**1,000**) WN.

Cedar Waxwing
Reported throughout the state.

Warblers

Blue-winged Warbler
Late south 8/27 Houston (2) FL, 8/30 Rice JL, 9/13 Houston (1) EMF.

Golden-winged Warbler
Late north 8/23 Carlton LW, 8/24 Clearwater RJ and Beltrami PBD, 8/30 Aitkin WN. Late south 9/8 Rice TBo, 9/13 Hennepin TT, 9/24 Hennepin SC.

Tennessee Warbler
Early south 8/10 Anoka TBr and Hennepin LE, 8/13 Anoka TBr, 8/14 Rice JLa. Late north 10/1 Aitkin CMG, 10/3 Carlton LW, 10/22 St. Louis mob. Late south 10/10 Goodhue BL, 10/11 Olmsted CH, 10/12 Hennepin TT.

Orange-crowned Warbler
Early north 8/15 Aitkin WN, 8/18 Aitkin CMG, 9/1 St. Louis AE. Early south 8/21 Anoka RH and Rice JLa, 8/22 Olmsted DA, BE, 8/30 Hennepin BSe. Late north 10/1 Hubbard DJo, 10/3 Carlton LW, 10/11 Beltrami DJo. Late south 10/19 Hennepin RJ, 10/21 Anoka RH, 10/25 Hennepin TT.

Nashville Warbler
Peak migration 8/22 Beltrami DJo. Late north 9/28 Aitkin CB, 10/1 Todd JSK/SDu, 10/6 Aitkin CMG. Late south 10/12 Lyon RgS and Hennepin TT, 10/15 Hennepin SC, 10/24 McLeod RbS.

Northern Parula
Early south **8/16** Hennepin TT and Rice TBo, 8/18 Hennepin SC, 8/21 Anoka RH and Dakota SWe. Unusual location 8/24 Polk RJ. Late north (only dates after mid-September) 9/18 Cook KMH, 9/27 Carlton LW. Late south 9/25 Anoka TBr, 9/26 Brown JSp and Hennepin SC, TT, 10/1 Ramsey JDa.

Yellow Warbler
Late north 9/7 Aitkin WN and St. Louis KB, 9/10 Becker BK, 9/12 Wadena PBi. Late south 9/24 Lyon RgS, 9/25 Hennepin PBu, TT, 10/3 Pipestone WM.

Chestnut-sided Warbler
Late north 9/11 Clay RO, 9/12 Wadena PBi, 9/13 Carlton LW. Late south 9/16 Hennepin LE, 9/18 Houston RJ, 9/26 Brown JSp and Hennepin SC, TT.

Magnolia Warbler
Early south 8/13 Anoka TBr, 8/15 Hennepin SC and Rice TBo, 8/16 Hennepin TT. Late north 9/22 Cook KMH, 9/24 St. Louis LW, 9/26 Itasca ABo. Late south 9/22 Anoka TBr and Hennepin PBu, 10/5 Washington DS, 10/9 Hennepin SC.

Cape May Warbler
Early south 8/20 Hennepin SC and Rice JLa, 8/22 Hennepin TT and Olmsted DA, BE. Late north 9/3 Itasca BN, 9/5 Aitkin WN, 9/13 Aitkin CB. Only September reports south: 9/5 Goodhue SWe, 9/14 Dakota SWe. Peak counts 8/8 Lake (10) TT,

8/14 St. Louis (9) KB.

Black-throated Blue Warbler
All north reports: 8/11 and 8/20 Aitkin (female) CMG, 9/28 **Pennington** (female in Thief River Falls) JJ, **10/10** Otter Tail SDM. Excellent migration in the southeast region and the Twin Cities area, especially in Hennepin where SC reported a minimum of three females and two males 8/27–9/23 at Cedar Lake alone; others were at Wood Lake 8/20 (female) and 9/10–13 (male) both LE, Roberts Sanctuary 9/4–5 (female) TT, PBu, plus four additional reports in Hennepin with locations not given. All south reports outside of Hennepin: **8/15** Anoka (Rice Creek Park) CF, 8/23 **Kandiyohi** RJF, 8/31 Olmsted DA, BE, 9/4 Rice TBo, 9/5 Goodhue SWe, 9/16 Rice JLa, 9/20 Ramsey TT, 9/22 Carver RJ, 9/23 Olmsted DA, BE, 10/11 Olmsted CH, JHo.

Yellow-rumped Warbler
Early south 8/21 Anoka RH, 8/27 Washington DS, 8/30 Anoka MM, LMi. Peak migration 9/17 Beltrami DJo, 9/23 Lyon RgS, 9/26 Cass MRN, 9/28 St. Louis TW. Late north 10/27 Itasca BN, St. Louis JN and Cook KMH, 11/29 Aitkin CB. Unusual report of "Audubon's Warbler" 10/31 Cook (Grand Marais) mob. Late south 10/27 Dakota LE, 10/31 Hennepin SC, 11/6 Brown JSp.

Black-throated Green Warbler
Early south **8/15** Brown JSp, 8/18 McLeod RbS, and 8/19 Rice JLa, JL. Numbers down in Hennepin SC. Late north 9/19 Carlton LW, 9/23 Cook KMH, 10/10 St. Louis LE, **10/18** (ties latest date north) Lake KE *et al.* Late south 9/27 Hennepin SC, 10/3 Ramsey TT, and 10/4 Dakota DBS.

Blackburnian Warbler
Early south 8/2 Olmsted CH, 8/10 Anoka TBr, 8/12 Rice TBo. Numbers down in Hennepin SC. Late north 9/11 Aitkin CB and Carlton PBD, 9/12 Wadena PBi. Late south 9/18 Houston RJ, 9/26 Hennepin TT, 10/6 Houston (1) FL.

Pine Warbler
Late north 9/12 Carlton LW and St. Louis SS, 9/16 Beltrami PBD, 9/19 St. Louis AE. Total of only three reports south; no representative dates when compared to the median departure date (9/25) over the past 13 years.

Palm Warbler
Early south 8/30 Hennepin TT, 8/31 Dakota TT, 9/3 Hennepin SC. Peak count 9/12 St. Louis (**~50**) TW. Late north 10/15 Cook KMH, 10/18 Lake BSe, 10/19 St. Louis JN. Late south 10/22–23 Hennepin PBu, SWe, 10/25 Hennepin SC, TT, 11/1 Faribault JDa.

Bay-breasted Warbler
Early south 8/15 Hennepin SC, TT, 8/16 Hennepin TT, 8/18 Carver RJ. Late north 9/13 Carlton LW, 9/19 Itasca ABo, 9/20 St. Louis BSe and Cook KMH. Late south **10/22–23** Hennepin PBu, SWe, **10/25** Hennepin SC, TT, **11/1** (latest date south) Faribault JDa.

Blackpoll Warbler
Early north 8/26 Clearwater RJ, 9/3 Aitkin WN, 9/5 Clay RO. Early south 8/15 Brown JSp, 8/20 Anoka TBr, 8/21 Rice TBo. Numbers down in Hennepin; only three individuals seen by SC. Late north 9/13 Carlton LW, 9/18 St. Louis DS, 9/20 St. Louis BSe and Cook KMH. Late south 9/16 Dakota SWe, 9/22 Carver RJ, 10/2 Hennepin TT.

Cerulean Warbler
No reports, same as last fall.

Black-and-white Warbler
Late north 9/24 Beltrami DJo, 9/26 Itasca ABo, 10/4 Carlton LW. Late south 9/23 Olmsted DA, BE, 9/26 Hennepin TT, 10/9 Hennepin SC.

American Redstart
Late north 10/10 Aitkin WN, 10/17 Carlton LW, **10/24** Lake JLi. Late south 10/4 Hennepin SC, 10/7 Brown JSp, plus two record late dates at Lake Calhoun, Hennepin Co., apparently referring to the

Palm Warbler, 2 October 1998, Old Cedar Avenue Bridge, Bloomington, Hennepin County. Photo by Vija Kelly.

same individual: **11/14** (SC) and **11/22** (LE). Both records were well-documented by these two experienced observers.

Prothonotary Warbler
Exceptional north location and first county record **8/29–30** **Aitkin** WN, CMG. All south reports: 8/1 and 8/6 Hennepin TT, 8/8 Rice TBo, 8/11 Ramsey RJ, 8/12 Dakota KB.

Ovenbird
Late north 9/13 Beltrami PBD, 9/19 Itasca ABo, 9/20 Carlton LW. Late south 9/27 Mower RRK, 10/3 Hennepin TT, 10/21 Hennepin SC.

Northern Waterthrush
Late north (all September reports) 9/1 Aitkin CB, 9/7 Aitkin CB and St. Louis KB, 9/27 Carlton LW. Early south 8/7 Hennepin TT, 8/11 Brown JSp, 8/13 McLeod RbS and Anoka TBr. Late south 9/27 Hennepin SC, 10/1 Ramsey JDa, 10/3 Hennepin TT.

Louisiana Waterthrush
No reports.

Kentucky Warbler
No reports.

Connecticut Warbler
Early south 8/18 McLeod RbS, 8/30 Hennepin SC. Late north 8/30 St. Louis ABo, 9/15 Becker BBe, 9/20 Aitkin CMG. Late south 9/15 **Houston** FL, 9/16 Hennepin SC.

Mourning Warbler
Early south 8/14 Washington TEB, 8/18 Hennepin SC. Late north 9/6 Cook KMH,

9/7 St. Louis KB, **9/27** St. Louis FN. Late south 9/15 Brown JSp, 9/29 Lyon RgS and Hennepin TT.

Common Yellowthroat
Late north 9/27 Aitkin CB, 9/28 Clearwater PBD, 9/29 St. Louis CB. Late south 10/9 Hennepin TT, 10/25 Hennepin SC.

Hooded Warbler
No reports.

Wilson's Warbler
Early north 8/7 Aitkin CMG, 8/8 Lake TT, and 8/15 Clearwater ABo. Early south 8/15 Lac Qui Parle WM and Anoka CF, 8/16 Hennepin SC. Late north 9/5 Lake RO, 9/7 St. Louis KB, and 9/8 Clay CN. Late south 9/14 Brown JSp, 9/24 Hennepin TT, **11/27** (latest date for the state) Hennepin SC.

Canada Warbler
Early south 8/16 Hennepin SC, 8/18 Rice TBo, 8/20 Carver RJ. Late north 9/6 Clay GN, 9/18 St. Louis SL, 9/19 St. Louis TT. Late south 9/20 Brown JSp, 9/24 Hennepin LE, **10/6** Lac Qui Parle FE.

Yellow-breasted Chat
No reports.

Tanagers to Snow Bunting

Summer Tanager
Only report: 10/17–19 **Lake** (Two Harbors) BSe, MH, mob.

Scarlet Tanager
Late north 9/12 Otter Tail SDM, 9/28 Aitkin CMG, 9/29 Todd (bird with injured wing) JSK/SDu. Late south 9/25 Anoka TBr, 9/26 Hennepin SC, 10/5 Mower (2) RRK.

Spotted Towhee
All reports: 10/3 Rock (1) and Pipestone (2) KE, WM, 10/10 Rock AH, 11/21 **Ramsey** JH.

Eastern Towhee
Only north report: 8/15 Wadena PBi. Late south 10/4 Hennepin SC, 10/17 Fillmore DN, 11/1 Houston NWi.

American Tree Sparrow
Early north **9/13** Aitkin CB, 9/21 Becker BBe, 10/1 St. Louis TW. Early south 9/27 Carver RH, 10/3 Olmsted BE, 10/13 Hennepin SC.

Chipping Sparrow
Late north 10/21 St. Louis NJ, 11/21 Cass MRN, **11/23** St. Louis KE. Late south 11/1 Faribault JDa and Houston NWi, 11/19 Houston EMF.

Clay-colored Sparrow
Late north 10/8 St. Louis FN, 10/15 Cook KMH. Late south 10/1 Stearns MJ/DT, 10/2 Dakota DBS, 10/6 Houston FL.

Field Sparrow
Only north report: 10/3 Morrison MJ/DT. Late south 10/25 Brown BBo, 10/26 Stearns MJ/DT.

Vesper Sparrow
Late north 10/9 Todd JSK/SDu, 10/10 Wadena PBi, 10/18 Lake LW. Late south 10/18 Dakota SWe, Hennepin SC, and Swift ABo.

Lark Sparrow
All reports: 8/15 Lac Qui Parle KE, 8/21 Anoka RH, 8/31–9/2 **Lake** JLi, **10/3** Rock KE.

Lark Bunting
Only documented report: 8/25 **Hennepin** (MSP Airport) TT, mob.

Savannah Sparrow
Late north 10/13 Clay PS, 10/22 Cook KMH, 10/24 Wilkin WM, NWi. Late south 11/1 Faribault JDa and Hennepin SC.

Grasshopper Sparrow
All reports: 8/2 in three south counties, 8/3 Pipestone RJ and Redwood RJ, 8/11 Clay KB, 9/22 Todd JSK/SDu.

Henslow's Sparrow
No reports.

LeConte's Sparrow
Early south 9/20 Hennepin TT, 9/21 Olmsted DA/BE. Late north 8/16 St. Louis TW, 8/22 Aitkin WN, 9/28 Todd JSK/SDu. Late south 10/9 Houston RJ, 10/16 Kandiyohi RJF, 10/19 Hennepin TT.

Nelson's Sharp-tailed Sparrow
All reports: 9/7 Hennepin (Brooklyn Park) OJ, 9/17–10/2 **Olmsted** (E. Landfill Reservoir) CBe, mob, 9/20 Hennepin (MSP airport) TT, 10/2–4 St. Louis (40th Avenue West) DBe, mob.

Fox Sparrow
Early north 9/19 Cook KMH, 9/20 St. Louis BSe, 9/24 Aitkin CB and Beltrami PBD. Early south 9/20 Hennepin SC, 9/24 Lyon RgS, 9/27 Brown JSp. Late north 11/1 Wadena PBi and Aitkin WN, CMG, 11/18 St. Louis LW, 11/24 Cook KMH. Late south 11/16 Scott LE, 11/25 Ramsey RH, 11/27 Houston EMF.

Song Sparrow
Late north 10/18 St. Louis PS, 10/24 Marshall JJ and Wilkin NWi. Reported throughout the period south.

Lincoln's Sparrow
Early south 8/31 Hennepin TT, 9/2 Washington WL, 9/4 Dakota DBS and Scott RJ. Late north 10/18 St. Louis PS, 10/21 Clay CN, 10/24 Wilkin NWi. Late south 10/18 Dakota SWe, 10/21 Ramsey RH, 10/25 Hennepin SC.

Swamp Sparrow
Late north 10/24 Wilkin NWi, 10/28 St. Louis JN, 11/1 Cook KE. Late south 11/8 Rice JL, 11/27 Hennepin SC (see winter report for additional sightings by SC).

White-throated Sparrow
Early south 8/21 Anoka RH, 8/24 Brown JSp, 8/28 Hennepin TT. Peak count 10/2 Lyon (88) RgS. Late north 11/21 Aitkin WN, 11/23 Carlton LW, 11/24 Cook KMH (also see winter report).

Harris's Sparrow
Early north 9/17 St. Louis AE, 9/18 St. Louis FN, 9/21 Cook TEB. Early south 9/16 Hennepin TT, 9/24 Lyon and Yellow Medicine RgS, 9/27 Rice TBo. Peak number 10/8 Lyon (55) RgS. Late north 10/22 Cook KMH, 10/24 Wilkin WM, NWi, 11/8 St. Louis JN.

White-crowned Sparrow
Early north 9/7 Cook KMH and St. Louis KB, FN. Early south 9/12 Hennepin SC, 9/16 Washington DS, 9/19 Anoka JH. Late north 11/11 St. Louis JN, 11/24 Cook KMH. Late south 11/6 Olmsted DA/BE, 11/7 Goodhue PBu.

Dark-eyed Junco
Reported throughout the period north. Early south 9/12 Hennepin SC and Anoka RH, 9/15 McLeod RbS and Mower RRK.

Lapland Longspur
Early north 9/18 St. Louis FN, 9/19 St. Louis SWe, 9/21 Cook TEB, KMH. Early south 9/12 Faribault RJ, 9/18 Houston RJ, 9/22 Hennepin TT. Late north 10/24 Polk and Wilkin mob, 11/8 St. Louis SS. Hundreds still present in southwestern part of the state on 11/19 (KB).

Smith's Longspur
More reports than usual: 9/26–10/2 **St. Louis** (40th Avenue West) MH, mob, 10/9–10 **Cook** (Grand Marais) KE, mob, 10/13 Clay (11 at Felton Prairie) KB, PS, 10/23–25 Wilkin (8+ at Rothsay WMA) KE *et al.*, 10/24 Cottonwood (25 at Jefferson Petroglyphs) DA/BE.

Chestnut-collared Longspur
Only reports were from Clay (Felton Prairie): 8/11 KB, 8/16 RO.

Snow Bunting
Early north 10/13 Cook KMH, 10/14 Becker BBe and Cass KB, 10/15 Itasca BN. Early south 10/18 Dakota DBS, 10/31 Lac Qui Parle DN, 11/7 Wabasha PBu.

Cardinals to Orioles

Northern Cardinal
Reported from Aitkin, Becker, Kanabec,

Morrison, Otter Tail, St. Louis, and Todd in the north, and throughout the south regions.

Rose-breasted Grosbeak
Late north 9/19 Becker BK, 9/27 Wadena PBi, 10/24 Lake JLi. Late south 10/1 Hennepin SC, 10/3 Carver RJ, 10/4 Washington JDa.

Blue Grosbeak
Only reports: 8/2 Pipestone and Rock (3) KSu, PS, 8/3 Lincoln and Pipestone (2) RJ.

Indigo Bunting
Late north 9/5 Wadena PBi, 9/7 Aitkin WN, 9/10 St. Louis SL. Late south 9/25 Houston EMF, 9/26 Hennepin TT, 10/4 Ramsey JDa.

Dickcissel
All reports: 8/2 Lincoln, Pipestone and Rock KSu, PS, 8/2 Lyon RgS, 8/3 Redwood and Rock RJ, 8/22 Olmsted DA/BE.

Bobolink
Late north 9/2 Clay RO, 9/5 Wadena PBi, 9/29 St. Louis PS. Late south 10/6 Hennepin SC, 10/12 Hennepin TT.

Red-winged Blackbird
See winter report for overwintering north. Reported throughout the south. An estimated **100,000** were in a single flock 10/30 Steele RJ.

Eastern Meadowlark
Late north 10/18 Aitkin WN, 10/24 Carlton LW. Late south 10/8 Dakota DBS, 10/10 Hennepin SC, 10/29 Sherburne RH.

Western Meadowlark
Late north 11/11 Becker BBe, 11/29 Wilkin SDM. Late south 10/24 Lyon RgS and Hennepin SC, 11/21 Watonwan ED. Late silent meadowlarks not identified as to species included 11/1 Cass PS, 11/27 Lyon TBr, PBu, TT.

Yellow-headed Blackbird
Late north 9/12 Wadena PBi. Late south 8/29 Waseca JSe, 9/8 Big Stone and Faribault LE, 10/8 Lyon RgS.

Rusty Blackbird
Early north 9/18 Itasca ABo, 9/27 St. Louis FN, and 9/28 Aitkin CB. Early south 9/17 Scott RJ, 9/21 Hennepin LE and Olmsted DA/BE. Late north 11/13 St. Louis JN, 11/19 Aitkin CMG. Late south 11/11 Freeborn ABa, and 11/14 Hennepin OJ.

Brewer's Blackbird
Late north 10/9 Todd JSK/SDu, 11/7 Otter Tail DS, 11/8 Grant SDM. Late south 10/24 Lyon RgS, 10/25 Stearns MJ/DT, 11/2 Waseca OJ.

Common Grackle
Reported throughout the period, north and south.

Brown-headed Cowbird
Late north 8/22 Aitkin WN, 8/30 St. Louis ABo. All south reports after August: 9/29 Lyon (88) RgS, 10/2 Dakota DBS, 10/18 Hennepin TT, 10/20 Hennepin SC, 10/24 Lyon RgS.

Orchard Oriole
Late north 8/15 Wadena PBi, 8/22 Clay RO. Only south report: 8/15 Swift WM.

Baltimore Oriole
Late north 9/2 Beltrami PBD, 9/21 Aitkin WN, plus lingering into December (12/20) at a feeder in Douglas *fide* PBu. Late south 9/8 Nicollet LF, 9/10 Washington WL, 9/11 Brown JSp.

Finches to Weaver Finches

BRAMBLING
Fourth state record 10/23 **St. Louis** (Hoyt Lakes) AE, AH (***The Loon*** 71:46–47).

Pine Grosbeak
Early north 10/19 St. Louis FN, 10/31 Cook KMH, 11/1 Cass PS (only reported from these three north counties). One south report: **10/23** Chisago (2) RH. Overall, quite scarce this season.

Purple Finch
Reported throughout the north. Early south 9/16 Hennepin SC, 9/20 Brown JSp, 10/12 Ramsey TT.

House Finch
Reported throughout the state.

Red Crossbill
Reported from Aitkin, Clearwater, Cook, Hubbard, Lake, and St. Louis in the north. High count at Hawk Ridge on 10/22 of 215, with a seasonal total of 1,095 (FN). One south report: 11/23 Anoka KB.

White-winged Crossbill
Many reports from St. Louis (mid-August through the end of November), with other reports only from Aitkin and Lake.

Common Redpoll
Early north 10/13 St. Louis FN, 10/24 Carlton LW, 10/31 St. Louis WM. Few north reports, mostly of individuals. No south reports.

Hoary Redpoll
No reports.

Pine Siskin
Reported throughout the north. Early south 9/7 Hennepin SC, 10/3 Rock WM, 10/4 Dakota DBS.

American Goldfinch
Reported throughout the state. Nesting as late as 8/13 in Ramsey (nest with four eggs, *fide* TT).

Evening Grosbeak
Reported from Aitkin, Becker, Beltrami, Cook, Hubbard, Itasca and St. Louis in the north, with most reports from November. One south report: 11/22 Stearns MJ/DT.

House Sparrow
Reported throughout the state.

Contributors

BA	Betty Ammerman
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PBi	Paul J. Binek
JBl	Jo Blanich
TBo	Tom F. Boevers
BBo	Brad Bolduan
ABo	Al Bolduc
TBr	Terry P. Brashear
WB	William L. Brown
DBr	Diane Brudelie
PBu	Paul Budde
CB	Cindy Butler
SC	Steve Carlson
MJC	Mary Jo Christopherson
JDa	Jeff Dains
ND	Nelvina DeKam
PBD	Pat & Bob Dewenter
ED	Ed Duerksen
SDu	Sue Durrant
KE	Kim R. Eckert
FE	Fred A. Eckhardt
PE	Paul Egeland
JE	Jim Eikenberry
BE	Bob Ekblad
LE	Lane Ellwanger
RE	Ron A. Erpelding
DEv	David Evans
ME	Molly Evans
AE	Audrey L. Evers
THF	Tom & Helen Ferry
RTF	Roger & Tammy Field
LF	Lawrence W. Filter
HJF	Herbert & Jeanette Fisher
DF	Dan Floren
EMF	Eugene L. & Marilynn H. Ford
RJF	Randy & Jean Frederickson

EF	Eve Freeberg
MF	Merrill J. Frydendall
CMG	Clare & Maurita Geerts
CGj	Colin Gjervold
RG	Ray A. Glassel
DG	David Grossheusch
JHa	Jay E. Hamernick
CH	Clifford Hansen
MH	Mike Hendrickson
AnH	Ann Hertzel
AH	Anthony Hertzel
JHo	John Hockema
KMH	Ken & Molly Hoffman
RH	Robert E. Holtz
JH	James L. Howitz
SH	Sue Hutchins
NJ	Nancy A. Jackson
RJ	Robert B. Janssen
PJ	Paul Jantscher
DJo	Douglas P. Johnson
MJ/DT	Murdoch Johnson & Dianne Tuff
OJ	Oscar L. Johnson
TJ	Tom Jones
JJ	Jeanie Joppru
BK	Byron R. Kinkade
RRK	Ron & Rose Kneeskern
RK	Rich Kostecke
JSK	John & Susan Kroll
PKL	Pat & Ken Lafond
JLa	Jacob Langeslag
FL	Fred Lesher
SL	Sue Levy
BL	Bill Litkey
JL	Jon Little
WL	William H. Longley
CMa	Craig R. Mandel
WM	William Marengo
DBM	Dennis & Barbara Martin
MM	Marcus G. Martin
CM	Craig Menze
SDM	Steve & Diane Millard
LMi	Laura Miller
DM	Darryl S. Moen
DN	David F. Neitzel
BN	Bill Nelson
WN	Warren Nelson
JN	Jeff R. Newman
FN	Frank Nicoletti
GN	Gary E. Nielsen
CN	Connie M. Norheim
MRN	Michael R. North
MO	Mark Ochs
RO	Robert O'Connor
PP	Pam Perry
DMP	Daphne & Meyers Peterson
SR	Steve Roman
SS	Steven Schon
RRS	Rick & Robyn Schroeder
RbS	Robert Schroeder
RgS	Roger Schroeder
CS	Carol A. Schumacher
BSe	Blaine Seeliger
JS/MN	Jean Segerstrom & Mark Newstrom
JSe	Julian P. Sellers
BSi	Beth Siverhus
RSm	Rolf C. Smeby
DBS	Drew & Becky Smith
DS	Dave P. Sovereign
JSp	Jack Sprenger
ES	Evelyn Stanley
WSt	William Stauffer
SKS	Shelley & Keith Steva
FKS	Forest & Kirsten Strnad
KSu	Karen Sussman
PS	Peder Svingen
MT	Michael Tarachow
BT	Bill Tefft
DST	Dan & Sandy Thimgan
DT	David W. Thurston
HT	Howard C. Towle
TT	Tom Tustison
DV	Dan Versaw
MV	Mary Ellen Vetter
SWa	Stuart Wagenius
JMW	John & Marlene Weber
LW	Larry A. Weber
SWe	Steve Weston
TW	Terry P. Wiens
SWi	Sylvia Winkelman
NMi	Ned Winters
BY	Ben Yokel
mob	many observers
HRNR	Hawk Ridge Nature Reserve
MBW	Minnesota Birding Weekends
MDNR	Minnesota Department of Natural Resources
NRRI	Natural Resources Research Institute
USFWS	U. S. Fish & Wildlife Service

Continued Monitoring of Boreal Owls in Northeast Minnesota

William H. Lane

In 1998, I continued standardized nocturnal surveys to detect the presence of Boreal Owls in northeast Minnesota. Each of five routes was surveyed once during three time blocks: 15–31 March, 1–14 April, and 15 April–1 May. Boreal Owls were detected on 13 occasions during 620.3 km of surveys, representing an overall detection rate of 0.021 owls/km. Two male Boreal Owls were observed in cavities occurring in trembling aspen, but no female owls were located. The number of owls, detection rates, and the abundance index were the second lowest in my study area since 1987.

Introduction

The Boreal Owl (*Aegolius funereus*) is found at low densities as a regular breeding species throughout northeast Minnesota (Lane 1997). The owl 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 projected long-term population declines of the species throughout North America (Hayward 1994), and specifically, in portions of northern Minnesota (Jaako Pöyry 1992).

This study continues my long-term efforts to assess the distribution, status, and ecology of Boreal Owls in northeast Minnesota using standardized nocturnal surveys. Herein, I report the results of 1998 survey efforts.

Study Area

This study was conducted in northeast Minnesota, within Cook County and along the eastern quarter of Lake County (Fig. 1). 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 -17° C in January to 17° C in July. Annual snowfall averages 152 cm, and rainfall averages 45 cm (Ahlgren 1969).

Vegetation in the study area is characterized by forest-types representative of three biotic communities: the southernmost 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 impacts in shaping the present-day forest mosaic (Heinselman 1973).

Methods

Standardized nocturnal auditory surveys were conducted from 15 March to 1 May 1997. Each of five survey routes (Fig. 1; see Lane 1997, for more detailed route descriptions) was surveyed once during three time blocks: 15–31 March, 1–14 April, and 15 April – 1 May. Three min listening stations, separated by 0.8 km, were used to detect the broadcast staccato song of the male Boreal Owl (Bondrup-Nielsen 1984). Surveys were initiated at least 0.5 h after sunset and continued until the route was completed. Surveys were not conducted in winds exceeding 18 kph or during moderate to

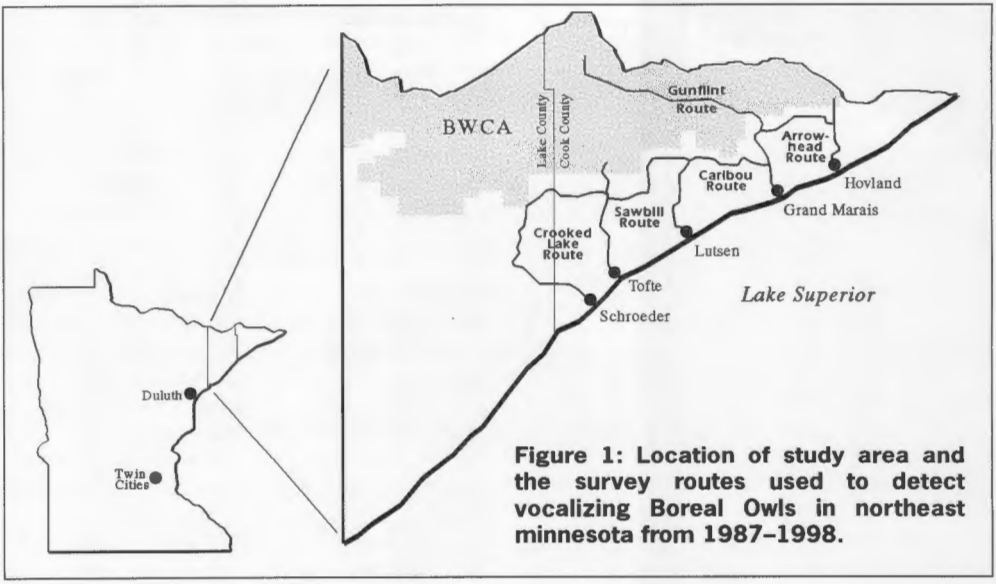

Figure 1: Location of study area and the survey routes used to detect vocalizing Boreal Owls in northeast minnesota from 1987–1998.

heavy precipitation. If a route was not completed due to deteriorating weather, it was completed when conditions allowed, ideally within the allotted time period.

During surveys conducted in the 15 April to 1 May time-block, passive listening surveys were supplemented with recorded playback surveys in areas that have historically supported Boreal Owls, but where I did not detect owls during the three previous listening surveys. Following the three minute listening period, a digital recording of the staccato song of the Boreal Owl was broadcast for three minutes, followed by a five minute listening and observation period.

Two abundance indices were derived for Boreal Owls. The detection rate is the number of owls detected per total km surveyed (owls/effort); the abundance index is the number of individual owls detected per linear route length (a rough density estimate).

Results

Surveys were initiated on 15 March and completed on 21 April. The Arrowhead route was surveyed by skis during the 15 to 31 March time block, was not surveyed during the 1 to 14 April time block, and was surveyed again by motor vehicle during the 15 April to 1 May survey period. Boreal Owls were detected on 13 occasions during 620.3 km of surveys, representing an overall detection rate of 0.021 owls/km surveyed. The abundance index (based on 12 individual owls) was 0.048 owls/km (Fig. 2). The Crooked Lake route accounted for 5 of 13 (38.5%), the Sawbill route 6 of 13 (46.2%), and the Caribou route 2 of 13 (15.4%) total owl detections. No Boreal Owls were detected along the Gunflint or Arrowhead routes (Fig. 3). The detection rate for vocalizing owls increased during the 1 to 14 April survey period and decreased thereafter (Fig. 4). No owls were detected or observed during supplemental playback surveys. Despite extensive on-the-ground foot searches, no female owls were observed on any identified owl territories, and no nesting attempts were documented.

Discussion

The detection rate and abundance index were the second lowest values recorded during nine years of survey methodology (all years since 1987, excluding

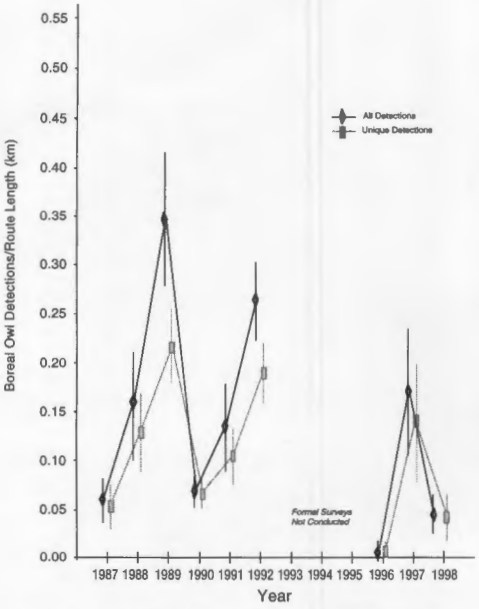

Figure 2: Annual abundance indices from 1987 through 1998, for territorial male Boreal Owls in northeast Minnesota. Individual owls detected per route length (km) are represented by a dashed gray line, and the toatl detections per route length (km) by a solid black line. Error bars represent stardard deviation of abundance index, using survey routes as replicates.

1993–95), and the number of individual owls was the second lowest recorded in my study area in 12 years. Owl concentrations were highest along the Crooked Lake and Sawbill Routes, and all male owls were located in habitat patches that I have previously identified. Again in 1998, the presence of owls appeared to be highly influenced by the presence of upland aspen-mixed forests, and lowland conifer forests (Lane 1997).

As the patterns of habitat use by Boreal Owls are identified, factors that likely contribute to short-term fluctuations in the Boreal Owl population are also becoming apparent. For example, in 1996, I attributed a 12 year low in owl numbers to heavy snowfall, record cold, and a documented decline in small mammal populations (R. Jannett, pers. comm.). In 1997, despite a second consecutive year of heavy snowfall and severe cold, owl numbers were the second highest I have recorded, and were likely the result of population increases of several small mammal species (R. Jannett, pers. comm.). Conversely, in 1998, above normal temperatures were common during the survey period, but were preceded by severe cold and minimal snowfall during the early winter — a factor that likely contributed to small mammal mortality (J. Duncan, F. Jannett; pers. comm.). Thus, prey species survivability during varying winter-time conditions has a considerable effect on the reproductive effort of Boreal Owls during the subsequent breeding season.

Conclusions pertaining to Minnesota's Boreal Owl population based on short-term (i.e., annual) observations must be weighed carefully. However, when incorporated into the context of my long-term data collection, these annual "snap-shots" of Boreal Owl ecology reveal several important facts:

1) Boreal Owl nesting activity in my study area is closely linked to the presence of trembling aspen. Since 1988, 57 of 61 (93.4%) of cavity-use observations of Boreal Owls have occurred in trembling aspen.

2) The average age of 17 trembling aspen cavity trees (based on intact increment cores) was 85.9 years (Lane and Andersen 1995).

3) Nest or cavity site locations are closely associated with the presence of lowland conifer forests (P. Wolter, pers. comm.)

4) Substantial blocks of older aspen have been harvested along portions of my survey routes (based on observations and preliminary Landsat analysis), resulting in a reduced localized distribution of the owl.

5) Survey data spanning nine years (Fig. 2) suggest that there has been an overall decline in the Boreal Owl population.

The evidence presented here, and

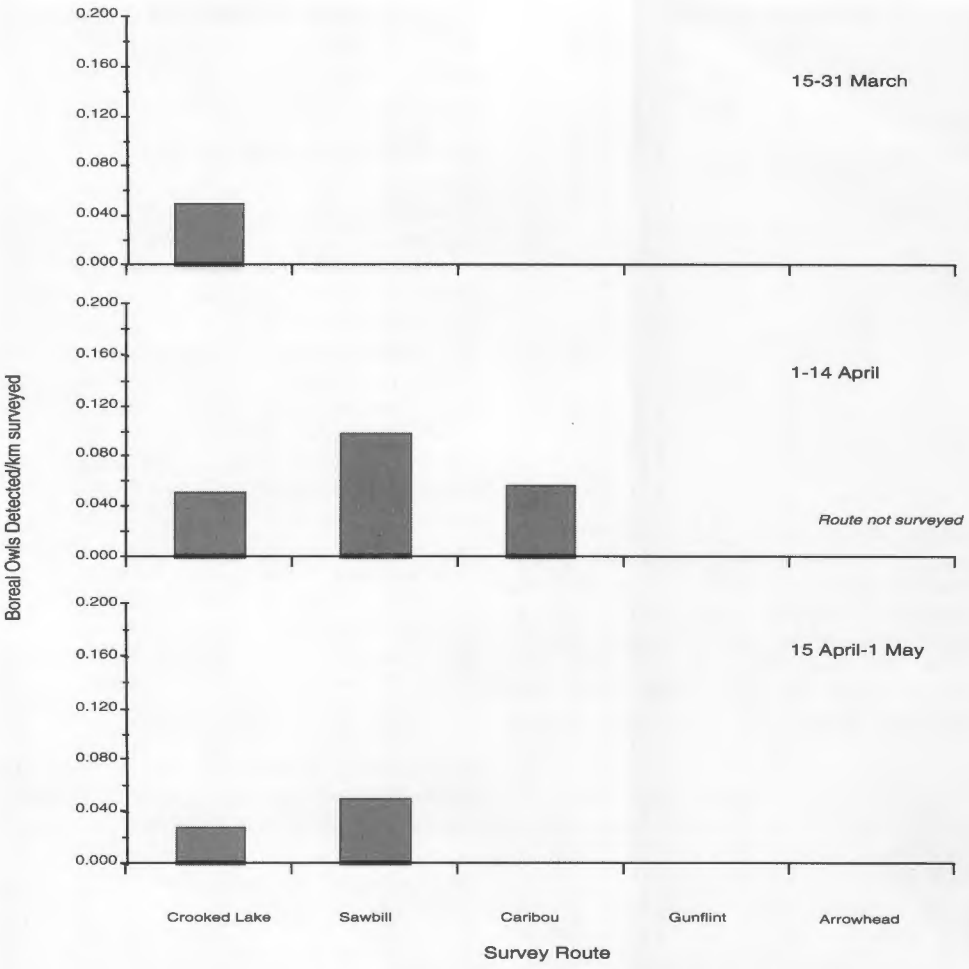

Figure 3: Detection rates of vocalizing Boreal Owls in northeast Minnesota during 1998. Each of five routes was surveyed once during the depicted time blocks, with the exception of the arrowhead route (not surveyed during the 1–14 April survey period).

supplemented by my previous manuscripts, strongly suggests that Boreal Owls in northeast Minnesota exhibit unique and highly specific habitat preferences. Furthermore, as economic pressures on the region's forest resources increase, an acceleration of harvests in habitats selected by Boreal Owls for nesting is expected (SNF 1986, Jakko Pöyry 1992). Finally, the removal of preferred habitat as the result of accelerated harvests will result in a decline in the Boreal Owl population in Minnesota's managed forests (Jakko Pöyry 1992). By agency definition, therefore, the Boreal Owl meets the criteria for listing as a Species of Special Concern by the State of Minnesota, and as a Sensitive Species by the Superior National Forest, and should be afforded those designations.

Minimally, monitoring of Boreal Owls should continue to supplement existing data, to identify long-term population trends, and to contribute to the formation

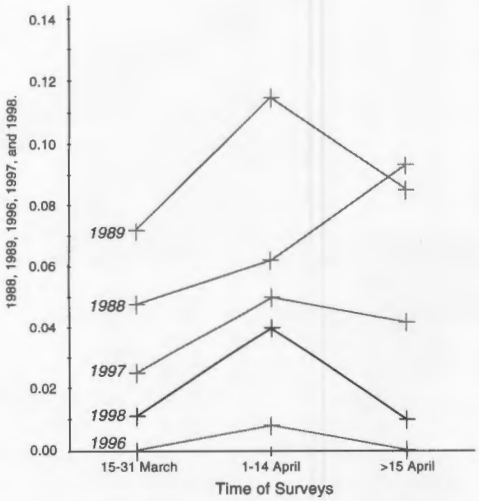

Figure 4. Overall detection rate of vocalizing male Boreal Owls during five years of standardized nocturnal listening surveys in northeast minnesota. Each of five routes was surveyed once during the three depicted time blocks, with the exception of the arrowhead route (not surveyed during the 1–14 April survey period).

of a precise management plan for the species.

Acknowledgments

Funding or support for this project was provided by the Minnesota Department of Natural Resources Natural Heritage and Nongame Wildlife Program (MNDNR), the Tofte Ranger District of the Superior National Forest (SNF), and the Minnesota Ornithologists' Union (MOU). Northern Ecological Associates Inc. provided time off from work to continue my research. Digital playback equipment was provided by Bill Martz of Wildlife Technologies Inc. My sincere thanks to Sue and Jack McDonnell of the Dreamcatcher Bed and Breakfast, and the Gunflint Trail Association for their unexpected contribution for the 1999 field season. My personal thanks to Rich Baker (MNDNR), Duane Kick, Jo Barnier, and Wayne Russ (SNF), Bob Janssen, Ann Kessen, and the members of MOU for their interest and support of my research, Dr. Rick Jannett, Dr. Jim Duncan, Bill Martz, and Oksana and Nikolai (the owlboy).

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BIRDING BY HINDSIGHT

A Second Look at The National Geographic Guide

Kim R. Eckert

Actually, this article might be better subtitled as a third look at the *National Geographic Society's Field Guide to the Birds of North America* (hereafter, *Geographic*), since the issue here is what's new in the third editon which came out this spring. Edition one of *Geographic* appeared back in 1983, and it was immediately acknowledged as the most (many would say the only) comprehensive and accurate general field guide of North American birds. A second edition came out four years later, although there were few obvious differences from the first. But that is not the case with the newest version; although most of it looks the same, it won't take you long to spot several revisions.

So, what are the changes in the third edition? Are they all for the better, are there things unchanged from the second edition which should have been improved, and — most importantly — to what extent can *Geographic* be confidently used in the field to unravel ID difficulties? Some of the more evident and most advertized changes involve the American Ornithologists' Union's recent decisions on taxonomy, nomenclature and sequence. Although such changes are welcome and necessary, most of them have relatively little to do with assisting birders to identify birds in the field. The 80 new species in this edition are mentioned prominently on the cover, but these mostly involve accidental strays to places like the Aleutians and allegedly established parrots and other exotics, things most birders have little or no contact with.

You have to look more closely at the third edition to see the revisions in the text and range maps, although these improvements are certainly extensive and important. Unfortunately, the reality is that most birders looking at a field guide make the crucial mistake of spending most of — or even all — their time examining the illustrations, simply trying to match what they see in the field to the picture in the book. They might pay no attention to the range maps and end up erroneously reporting something hundreds of miles out of range; or they may attempt a difficult identification without referring to the text for essential information on field marks not shown by the illustrations.

This installment in the Hindsight series of articles is not really intended to be a book review. Rather, what follows is some advice to Minnesota birders as to which illustrations in the third edition of *Geographic* have been improved and will be helpful in making accurate field identification — and which ones still need improvement and may still result in misidentifications. The illustrations not

discussed either involve species normally not found in Minnesota, those unchanged from the second edition which are still adequate, or those which present relatively few ID difficulties.

Pages 21, 23, 27 / loons, Clark's and Western grebes. All the loons have been repainted and improved with several additional illustrations spread over two full pages. These will prove far more useful than those in the previous edition and should improve the chances of Minnesota birders finding and accurately identifying the rarer species of loons, especially those in basic and juvenile plumages. Meanwhile, the paintings of the breeding Clark's and Western grebes are unchanged and fail to adequately show the most important difference between these species, since the bill color on the Clark's needs to be a brighter orange-yellow. Note, however, that bill colors are correctly shown on the new and welcome illustrations of "winter" birds, which also show how tricky the facial patterns of these two grebes can be.

Pages 57–61 / bitterns, herons and egrets. While these three plates may not lead to many misidentifications, they needed to be revised and weren't. Many of the shapes and poses are unnatural, especially those of the American Bittern, Little Blue Heron, Cattle and Snowy egrets, and there is no portrayal or mention of the yellowish lores which can appear on some immature Little Blues.

Pages 71, 83–87, 93, 98–101 / waterfowl. The illustrations for a few species unfortunately were not revised. The stubby shape and bluish-gray basal color of the Ross's Goose bill are not clearly shown, and it is still unclear to me if the rare blue-morph really has less white on the head and neck than the "Blue" Goose. One key difference between female Cinnamon and Blue-winged teals is the bill size: so why is the Cinnamon's bill still underwater and out of sight? Many birders have a hard time separating female Redheads and Ring-neckeds, but *Geographic* fails to clarify the differences. And it's even harder most of the time to tell the two scaup and the two female goldeneyes apart, so it was disappointing to see these plates unchanged. Also curiously the same from edition two is the set of four pages showing ducks in flight. It should be obvious that the upper wing surface of a flying duck is important, but these illustrations still make this hard to see.

Pages 103–129 / raptors. These pages are probably the most disappointing of all, with appreciable revisions in the illustrations of only two Minnesota species. With so many birders having difficulties with so many hawks, it is almost inexcusable to find almost no expansion in the coverage of this challenging group! The almost endless variation in Red-tailed Hawk plumages is again ignored, with this species still shown by only six illustrations limited to a mere half page. The illustrations for the highly variable Swainson's and Rough-legged hawks are similarly far from being adequate. Birders will continue to be confused by eagles, accipiters and large falcons if they continue to use *Geographic*, and the Northern Harrier pictures need to be replaced. While *Geographic* remains by far our best general field guide, you will do better to just leave it at home the next time you go hawk watching.

Pages 153, 173, 179–185 / shorebirds. After the disappointment of finding those raptor plates unchanged and inadequate, it was a relief to discover several positive improvements in six of the shorebird plates. The Black-bellied and various golden-plover illustrations are all new and improved, as are those for the Red Knot, Sanderling, Dunlin, Buff-breasted Sandpiper, Ruff, both dowitchers, Stilt Sandpiper, the three phalaropes and others. The improved appearance of the Sanderling, Dunlin, Ruff, dowitchers and Stilt Sandpiper are especially welcome and should be of great assistance to shorebird watchers here. The Upland and adult Pectoral sandpipers were also redone, although they now appear grayer than they should be.

Page 175 / peeps. Unfortunately, the

shorebird section definitely could have used some changes in one addtional plate. With shorebirds almost as difficult as hawks for most birders, and peep identification the most difficult of all, this page is still not very helpful. While the colors and contrast now look better, birders will still misidentify too many peeps if they solely refer to *Geographic*. Among other things, there is still not enough shown to safely separate Westerns from Semipalmateds, the adult White-rumped should show more rust on the head and a paler base to the bill, and the juvenile Baird's needs to look buffier.

Pages 195–213 / gulls. The gull plates in the second edition are among the best in the book, and there are several new and helpful illustrations found in these pages. However, given the complexities presented by so many gulls, one is left wishing more had been done. A couple new Ring-billed insets are added, and the Herring and California gulls are completely redone and improved, but the only other revisions involve gulls not normally found in Minnesota. It was disappointing not to find more emphasis on those Laughing Gull-like sub-adult Franklin's, and there is still no illustration of a juvenile Bonaparte's. Expanded coverage is needed of those exceptionally difficult "white-winged" and "black-backed" gulls, and the two-page section on gulls in flight is hardly adequate. *Geographic's* gull coverage is certainly far superior to that found in the other popular guides, but it's still hardly complete enough to handle such a difficult subject.

Page 237 / doves. This plate has been completely redone and is a definite improvement, since — if for no other reason — it includes the soon-to-be-regular Eurasian Collared-Dove. Note especially the nice side-by-side comparison with a Ringed Turtle-Dove at the top of the page.

Pages 287–301 / flycatchers. I'm having a difficult time deciding whether or not these plates will help or hinder Minnesota birders. I still don't like the unchanged illustrations for Olive-sided Flycatcher (though the added inset is good), Eastern Wood-Pewee (unnatural-looking), Eastern Phoebe (no wing bars shown, which are present on many phoebes) and Eastern Kingbird (why is its dignostic tail band so hard to see?). And I'm not so sure the completely revised Empidonax and Myiarchus flycatchers look quite right. Minnesota birders normally only deal with one Myiarchus (the Great Crested), but there are five Empids here and *Geographic's* improved pictures of them still seem a bit off in regards to their eye rings and primary extensions: the Alder's eye ring looks too bold, the Yellow-bellied's not bold enough, while only the Acadian shows a different primary extension.

Page 311 / Philadelphia and Warbling vireos. These two vireos have been successfully redone, with their facial expressions and the amount of yellow on their underparts appearing more accurate.

Pages 321, 363 / Horned Lark, Sprague's Pipit. You have to give *Geographic* credit for being the only popular guide to illustrate the juvenile Horned Lark, a bird which is easily misidentified as a Sprague's Pipit. This illustration, however, does not look quite true-to-life and remains unchanged in the third edition. It should have been redrawn, as was the Sprague's Pipit which now actually looks almost like the real thing! Again, you have to give *Geographic* credit since, until now, none of the field guides' illustrations has it right (the one in Robbins' Golden Guide is even downright comical).

Page 349 / Catharus thrushes. This plate has been completely revised and is a definite improvement, especially in the thrushes' overall shape and posture. This group still presents ID difficulties, but birders should now have fewer problems with them.

Pages 367–391 / warblers. Very few changes were made in these plates, with only one of them involving a species found in Minnesota. Unfortunately, it's a change for the worse: the fall Tennessee now looks unnaturally brownish, rather

than greenish as was correctly shown in the second edition. Some other unmade changes would have been welcome, however: the adult male Magnolia and Black-and-white pictures need to be improved; the fall/immature Chestnut-sided is too dark below; not green enough above, and it needs a bolder eye ring; and the confusing immature *Oporornis* warblers remain unchanged and are still confusing.

Page 393 / tanagers. Here is another completely revised plate which has changed for the better. The plumages and shapes of the tanagers now appear more accurate, with the Western's illustrations especially improved, and there is now a long-overdue picture of a first-spring male Summer Tanager.

Pages 401–417 / sparrows. Of all the plates in the earlier editions of *Geographic*, I've always disliked those of the sparrows the most. Neither their plumages nor shapes bear any close resemblance to reality — and, unfortunately, that is still mostly the case in the third edition since not much has changed. We are left, therefore, with especially inaccurate depictions of Field, Clay-colored, Chipping, Grasshopper, Fox, Savannah, and immature White-throated and White-crowned sparrows. About the only Minnesota species which have been redrawn are the Vesper (which has gone from bad to worse!) and the Le Conte's and Nelson's Sharp-tailed. While these last two now look better and more natural overall, the key field mark to separate them — the median crown stripe color — is not visible! In a way, therefore, *Geographic* is no more useful for identifying sparrows than it is for hawks.

Pages 421–423 / longspurs. Since the artist who did — or should I say did in? — the sparrow pictures also illustrated the longspurs, and since these remain unchanged in the third edition, birders will still have a lot of difficulties with longspur ID unless they are looking at adult males in alternate plumage.

Page 429 / Rose-breasted Grosbeak. The immature male in fall could use a better illustration, with more emphasis on its similarity to the female Black-headed Grosbeak. There are still too many of these Rose-breasteds being misidentified, and birders who rely on *Geographic* for assistance will not be helped.

Pages 435, 443 / Bobolink, meadowlarks, orioles. The illustrations of these icterids have all been revised, and the birder should now have less difficulty with female/fall Bobolinks. To be sure, the treatment of the two meadowlarks has also been improved and expanded, although the identification of silent birds remains very tricky. The oriole page, which includes the Orchard and Baltimore, is also better, and it should be of more help than before if a stray Bullock's shows up here.

Pages 449–455 / winter finches. There are no changes to be found in these pages, which is unfortunate since so many of the species look unnatural: though they might not lead to any misidentifications, I find the male House Finch and both crossbills to be especially odd in appearance. More illustrations of the highly variable Pine Siskin are also needed, but a more serious shortcoming is the lack of additonal redpoll illustrations. Once again, birders who trust in their trustworthy *Geographic* for help with this especially complex identification will remain confused.

Some final thoughts:

If a beginning or casual birder heads out into the field armed only with binoculars and a field guide, even if it's *Geographic*, there are going to be a lot of misidentifications. There are simply too many difficult IDs lurking out there for any portable field guide to adequately handle. When it comes to bird ID, as with everything else in life, there is no substitute for experience — whether it's your own, or that of a veteran expert who birds with you, or one who has written one of those specialized identification guides or articles you should take advantage of (see ***The Loon*** 70:160–165).

When using any field guide, *Geographic* included, there will also be too

many misidentifications if you only look at the pictures. With anything less than a straightforward ID, it is essential that you read the text for those finer points not shown in the illustrations. Also, mistakes can be avoided if you simply consult the range maps. Often the easiest way to preclude species similar to the one you're looking at is to see whether or not they occur where you are.

As this article has tried to demonstrate, the third edition of *Geographic* alone will not unravel all the ID difficulties you'll face in the field. If there is ever a fourth edition, perhaps it will successfully address those remaining problems outlined above. Still, any birder not using *Geographic* will err far more often than one who does use it. All the other popular guides still in print — i.e., those by Peterson, Robbins, Stokes and Griggs — might do a decent job of covering straightforward IDs, but none of them comes even close to adequately handling those more challenging problems. If I were to set out writing something similar to this article about any of these other guides, discussing which birds they do not sufficiently cover, it would turn into a full-length book.

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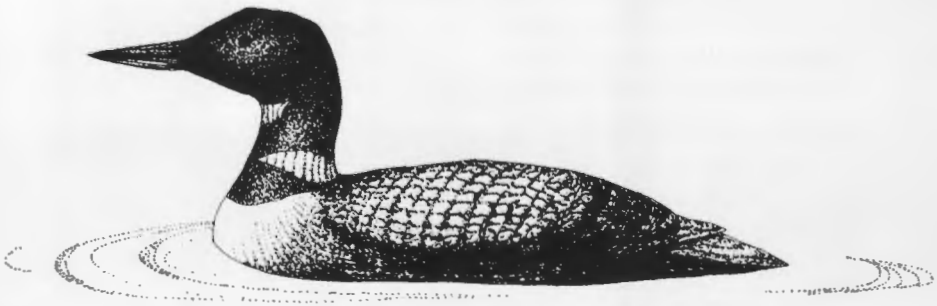
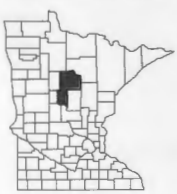


NOTES OF INTEREST

SUCCESSFUL DOUBLE-CRESTED CORMORANT NESTING ON LEECH LAKE, CASS COUNTY — While working on the Common Tern colony and monitoring other colonial waterbirds that use Gull and Pelican Islands on Leech Lake, I have been witness to the establishment of nesting Double-crested Cormorants on the lake. Cormorant numbers have greatly increased in Minnesota from lows of near zero nesting pairs in the mid-1960s to highs of about 16,000 pairs in the early 1990s (Katie Haws, MN DNR Nongame Program records). Over the period of 1993–1995, numbers of nesting pairs dropped off to around 10,000. Recovery of the population is generally attributed to protection and a decrease in pesticides in the environment.



On Leech Lake the first Double-crested Cormorant nesting activity that I noted occurred in 1992. On 15 July, four nests containing a total of nine eggs were found on Gull Island among a colony of about 1,000 pairs of Ring-billed Gulls. By 10

August a total of five young had survived and were close to fledging. In 1993 one cormorant nest containing one egg was found in the same area as the year before. An adult was observed on the nest, but the nest was later abandoned. No Double-crested Cormorant nesting activity was noted from 1994–1997, but cormorants were frequently seen on the lake during the summer.

In 1998 the amount of Double-crested Cormorant nesting activity increased dramatically, with a total of 73 nests (32 in trees and 41 on the ground) found on the southwest side of Little Pelican Island. Again the colony was found in conjunction with Ring-billed Gulls nesting on this part of the island. The cormorants appeared to do very well at this site, with a count on 16 June finding 150 advanced nestlings. It was conservatively estimated that about 100 of these birds fledged. **Steve Mortensen, Fish and Wildlife Biologist, Leech Lake Reservation DRM, Rt. 3, Box 100, Cass Lake, MN 56633.**

AN ALBINISTIC/LEUCISTIC RING-BILLED GULL IN DULUTH — During the third week of September 1998, we investigated reports of an Iceland Gull (*Larus glaucoides*) at Canal Park in Duluth and found an almost completely white gull that was clearly not this species. It was identifiable as an immature Ring-billed Gull (*L. delawarensis*). It associated with the many Ring-billeds that seek handouts from tourists at this popular waterfront park. This not only provided opportunities for direct comparison with the other gulls, but also facilitated close approach for photography and careful study. Whether in flight or on the ground, it appeared identical to the rest of the Ring-billeds in overall size, structure, primary extension, wing span, and leg length. At a distance it appeared all white and

Albinistic/leucistic Ring-billed Gull, 26 September 1998, Duluth, St. Louis County. Photo by Peder Svingen.

could be mistaken for some other species (even an Ivory Gull) if its size and structure were not considered. At close range, it showed a pale tan wash on both surfaces of the outermost three or four primaries. A similar wash on its distal tail produced a faint sub-terminal band; this band could not be detected on the outer webs of the outermost rectrices and appeared to be completely absent from the central rectrices. Except for sparse, light grayish-tan flecking on its head and nape (detectable only at close range), and pale, silvery-gray scapulars (visible on some of the photographs), the rest of its plumage appeared whitish. Its bill was pinkish with a black sub-terminal ring; the shape of its bill was identical to the other Ring-billeds. Its irides appeared dark in the field, although brownish-green in some of the photographs. Its legs were a dull, pale pink color. A true albino would show completely white plumage and lack normal pigmentation on its bare parts; this is extremely rare in gulls according to Grant, who knew of no definite cases (*Gulls: A Guide to Identification*, 1986, pp. 19–20). Grant states that partial or complete albinism is not uncommon in gulls, and that these birds can usually be identified and aged by using size, structural characteristics, and bare part coloration. **Peder H. Svingen, 2602 E. 4th St., Duluth, MN 55812, and Kim R. Eckert, 8255 Congdon Blvd., Duluth, MN 55804.**

REPEATED INVERTED FREE-FALL BY AN AMERICAN CROW — On 28 September 1998, while traveling on foot along the bluffs near Winona, Minnesota, I witnessed what I considered to be extremely strange behavior for an American Crow. It was a windy day and the winds met the treeless southern bluff face at an angle that created a strong updraft of the type commonly used by soaring hawks and vultures as they migrate down the Mississippi River corridor. When I first saw the crow it was riding on the upwelling of air and rising perhaps 150–200 feet per minute with a wobbling to the wings that implied turbulence in the rising air column. While I watched, it suddenly rolled completely over onto its back and folded its wings tight in against the body with the head canted to the left side of its body and slightly back so that one eye faced downward. It held this position for three to four seconds as it plummeted earthward, dropping somewhere between 60 and 70 feet before rolling back into the upright position and extending its wings into gliding, and then flapping flight. A single demonstration of this behavior would have been impressive to a veteran pilot such as myself, but the crow immediately repeated the actions.

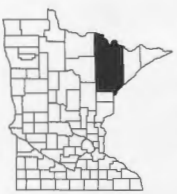
The crow rose again on the updraft, neatly rolled onto its back and folded its wings at a height slightly below the bluff tops. Again it dropped 70–80 feet in this position, rolled smoothly into a belly-down posture and extended its wings. Mystified, I stayed and watched for an hour and a half as the crow repeated the actions again and again, some twenty-five free-falls in all. The bird took one short break, resting in a dead tree top for several minutes before resuming his exuberant flight behavior. During my observation time I noticed that there was often, but not always, a call given before the crow rolled onto its back to begin the fall. The call, when given, was a hoarse, short "wahh" sound rather than the rising pitch and longer duration of the standard "caw" call of the species.

I have looked into my limited references on crows but found no explanation or reason for the "free-fall" behavior observed. It would be possible that it might somehow assist in marking territory, though it seems the wrong time of year for that. It would obviously prove to be a great technique for avoiding an airborne predator, such as the Peregrine Falcons that have recently been released in the LaCrosse area. A quick roll, fold and drop pattern executed as the hawk stooped would make successful pursuit and capture extremely unlikely. If that is the case, then one would have to

question whether such behavior was learned by chance or cultural transmission — easily believed possible in such an intelligent, social species, or whether it is genetic and innate — a legacy of natural selection from past times when avian predators were more abundant. If the latter were true, the reappearance of the behavior would coincide well with the recent increase in abundance of the Peregrines.

During the time I observed the crow, the shortest inverted drop it made was probably 20 feet, the longest perhaps 80–100 feet with wings tightly tucked alongside the body for the whole distance. At no time did I see any other crows or any potential predators in the immediate area. As a biologist trained in the field of animal behavior, the only explanations I can offer for the crow's behavior would fall into the category of "practice" for predator avoidance, as suggested above, or some form of "play," presumably leading to increased survival probability in the future. As a pilot, and chronic risk-taker personality type, I was envious and fascinated by the crow's actions and wished I could join it in its wild aerial rides. While I am not supposed to believe such explanations as an ethologist, I truly think that it is just possible that the only reason the crow kept repeating the behavior was that the crow was having fun at it. Maybe there are wild-spirited crows out there that know how to put a windy fall day to good use and how to break the chains of conventional behavior. At least, I'd like to think so at times, and so break the chains of my more conventional thoughts. **Philip C. Whitford, Biology Dept., Capital University, 2199 East Main St., Columbus, OH 43209.**

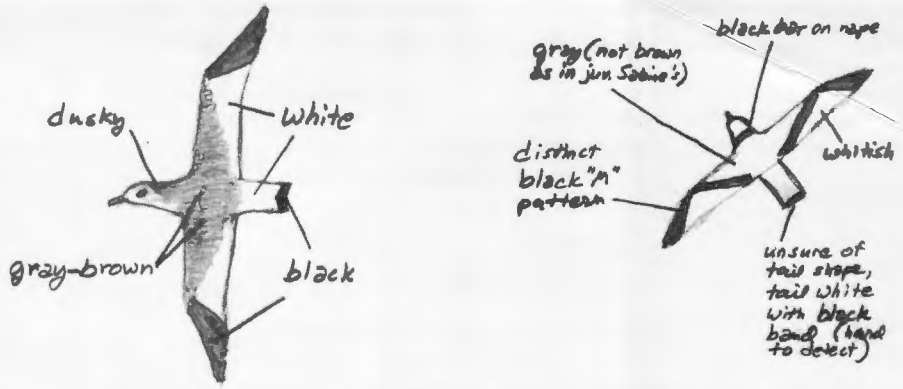
SABINE'S GULLS AND BLACK-LEGGED KITTIWAKE IN DULUTH — An amazing variety of gulls gathered at the Superior Entry during late September 1998 (*North American Birds* 53:53–57). The Superior Entry divides Minnesota Point from Wisconsin Point and also delineates the state line. Except for an early Thayer's Gull (*Larus thayeri*) that I found on the 25th at Minnesota Point, these larids were first seen by Wisconsin birders off Wisconsin Point.



Daryl Tessen found four or five juvenile Sabine's Gulls (*Xema sabini*) off Wisconsin Point on the 23rd of September. Two of them were relocated the following morning by Kim Eckert, Anthony Hertzel, and myself as they flew back and forth over Lake Superior in the vicinity of the airport on Park Point in Duluth.

After hearing that a first-winter Black-legged Kittiwake (*Rissa tridactyla*) had also been seen on the 24th from Wisconsin Point, Karen Sussman and I hiked about one mile south of the airport on Park Point and were able to see this gull feeding and flying over Lake Superior.

The kittiwake was clearly larger than the nearby Bonaparte's Gulls (*L. philadelphia*) but smaller than the Ring-billed Gulls (*L. delawarensis*) in the same area. Its flight manner was more like that of a gull than a tern; compared to the sometimes fluttering wing strokes of the Bonaparte's, it was slower and more deliberate. It dipped to the surface of the lake a couple of times and seemed to associate more closely with the Ring-billeds than with the Bonaparte's Gulls. Due to the distance (approximately 250 yards) its bill shape, eye color, auricular spot, exact tail shape and leg color could not be detected. However, a distinct black nuchal bar, a black terminal band on the tail, and the characteristic black "M" pattern on its wings were well seen. We were looking towards the east for approximately three minutes at 6:40 P.M., through a Swarovski ST-80 with its zoom eyepiece @ 60x. Immature Bonaparte's Gulls, especially those still in juvenal plumage, are a potential confusion species; they were eliminated by the whitish trailing edge on the wing (black in Bonaparte's), the distinct "M" pattern (indistinct and thin on Bonaparte's), the unmarked gray back (brown scapulars on



Sabine's Gull and Black-legged Kittiwake drawings by Peder Svingen.

Bonaparte's), and the black nuchal bar (indistinct brown wash on the nape of juvenile Bonaparte's). Anthony Hertzel saw the kittiwake again on the 26th but there were no subsequent reports.

Two other gulls (Little and Iceland) reported at Wisconsin Point during this same time were not seen off Park Point, so Minnesota "only" had seven species! Later in the fall, an additional four species of gulls were found on the Minnesota side of the Superior Entry. **Peder Svingen, 2602 E. 4th St., Duluth, MN 55812–1533.**

SUMMER FLOCKING OF THE SANDHILL CRANE IN NORTHWESTERN MINNESOTA — During a Breeding Bird Survey in Kittson County on 29 June 1998 at about 9:30 A.M., I encountered an unexpected concentration of 168 adult Sandhill Cranes (*Grus canadensis*) in an overgrown hayfield east of Lake Bronson. Cranes typically congregate during migration and on their wintering grounds, with seasonal changes in the social function of these aggregations (Tacha 1988). Koonz (1990) reported a similar concentration of at least 112 adult cranes on 15 June 1989 near Waterhen, Manitoba that was considered to be extraordinary. These summer flocks are most likely non-breeding adults (Taylor 1997), or possible unsuccessful breeders. Initial pair formation among mid-continent populations of Sandhill Cranes does not occur before the third year and although successful reproduction may begin at five years of age, it does not occur in more than 75% of pairs until age eight or older (Tacha *et al.* 1992).

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Peder Svingen, 2602 E. 4th St., Duluth, MN 55812–1533.

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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;* conduct field trips; encourage and sponsor the preservation of natural areas; and hold seminars where research reports, unusual observations and conservation discussions are presented. We are supported by dues from members, affiliated clubs and special gifts. The MOU wishes to point out that 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" 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 3 ½ inch 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 "The Season" should be sent promptly at the end of February, May, July and November to Peder Svingen. See key to the "The Season".

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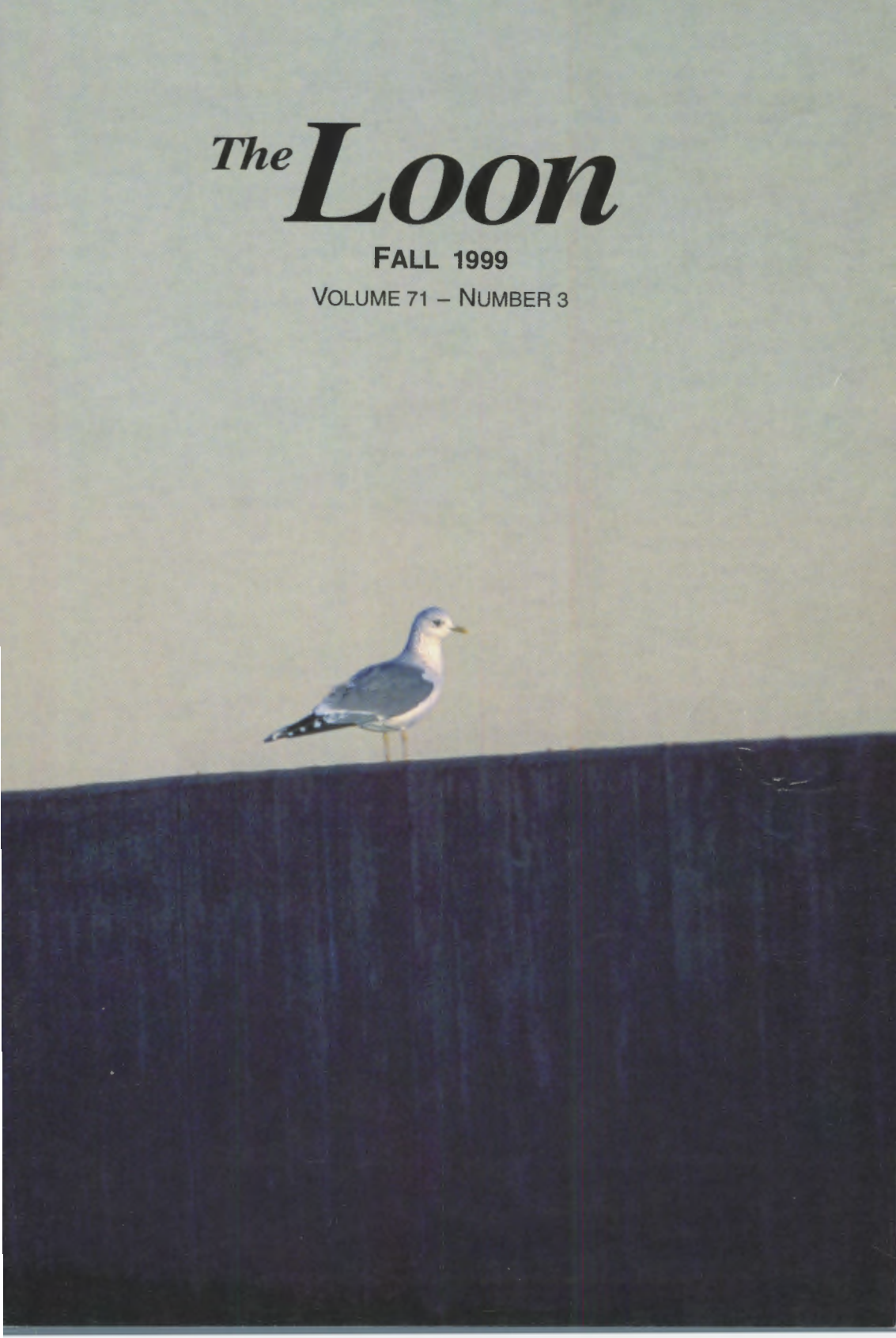
The Loon

FALL 1999

VOLUME 71 – NUMBER 3



The Loon, Minnesota's journal of birds, is published four times a year by the **Minnesota Ornithologists' Union**, the statewide bird club. Anyone interested may join. All members receive our two publications: ***The Loon*** and *Minnesota Birding.*

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ISSN 0024–645X

Obituaries

Jerome Gresser
1924–1999

Don Bolduc

The Minnesota Ornithologists' Union and the Minnesota River Valley Audubon Chapter lost one of their super birders on 8 July 1999 when Jerry Gresser died at the age of 75 after a lengthy illness.

In the late 1960s, my wife Shirley and I led a field trip around Swan Lake for the old Minneapolis Bird Club. Jerry came alone in a pick-up truck. That was the first time we met him. From then on he attended many more of our field trips.

It wasn't too many more trips later when he brought to the attention of the birders an easy way to separate the Forster's Tern from the Common Tern — the tail feathers of the Forster's are "dark in the forest" meaning the inner edge of the tail feathers have a dark margin.

A long-time MRVAC member, together with his wife Karol, Jerry will be remembered by many for enthusiastically sharing his birding finds with others and his uncanny ability to identify birds by sound.

Jerry's Minnesota Life List totaled 362, qualifying him for the elite Roberts Club. His final bird was added just this spring when Karol drove him to Rice County to view the Swallow-tailed Kite.

A meticulous bricklayer by trade, Jerry had a gentle sense of humor, and took great interest in German culture, history, and world affairs.

Jerry, along with Karol, led a number of field trips, including the winter bus trips up the North Shore of Lake Superior for the January MOU meetings.

We will miss him greatly.

5635 Xerxes Ave. S., Apt. 310, Minneapolis, MN 55410.

Harvey Gunderson
1913–1999

Walter Breckenridge

Dr. Harvey Gunderson was born near Twin Valley in northwestern Minnesota on 11 June 1913, and he was the youngest of nine children. His education included a B.S. in chemistry and biology at Concordia College in Moorhead, an M.S. in wildlife zoology at the University of Minnesota, and a Ph.D. in zoology at the University of Michigan.

In 1950 Harvey married Erika Rogalsky and they had three children. He served for four years on the staff of the J. F. Bell Museum of Natural History at the University of Minnesota and he was president of the Minnesota Ornithologists' Union from 1949 to 1950. In 1964 he became a full professor of zoology at the University of Nebraska and Associate Director of their Natural History Museum in Lincoln. His research took him from the Arctic to the equator.

During his curatorial service with the Bell Museum he did significant work on Minnesota mammals and published several articles on the subject. In 1976 McGraw Hill published his book *Mammalogy*.

Dr. Gunderson was a scientist, lecturer, researcher, and writer who reached both the scientific and popular audiences. He worked with conservation organizations, churches, and communities and received many awards including the Alumni Achievement Award from Concordia College.

After retirement, he lived for six years in Louisville, Kentucky, then returned to Minnesota where he died on 23 February 1999.

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Fall Staging of the Bonaparte's Gull on Lakes Winnibigoshish and Mille Lacs

A Comparative Study on Two Large Lakes in Minnesota

Peder H. Svingen

Bonaparte's Gulls on Mille Lacs Lake, October 1998. Photo by Anthony Hertzel.

Mille Lacs Lake (hereafter Mille Lacs) is a popular birding location for loon, gull, and waterfowl enthusiasts in the fall, and over the years it has attracted more than its share of rare gulls including Little, California, and Thayer's Gulls, and Black-legged Kittiwake. The four records of Little Gull on Mille Lacs (1977, 1987, 1995, 1998) have all been in the fall, generally associating with the large flocks of Bonaparte's Gulls which occur there each year from September through November. Several years ago, Karl Bardon challenged me to prove my assertion that even higher numbers of Bonaparte's Gulls congregate on Lake Winnibigoshish each fall.

I began preliminary surveys of "Lake Winnie" in fall 1996 which ultimately led to the methodology presented here. Systematic surveys for Bonaparte's Gulls then were conducted on a weekly basis during fall 1997 and 1998 on Lake Winnie, from mid-August until freeze-up in November. During these surveys, Minnesota's second Mew Gull (Svingen 1997a) and one or two Black-legged Kittiwakes (Svingen 1996–97, Svingen 1997b) were found, along with Red-throated and Pacific Loons, all three scoters, Oldsquaw, and an unidentified phalarope in late October that was

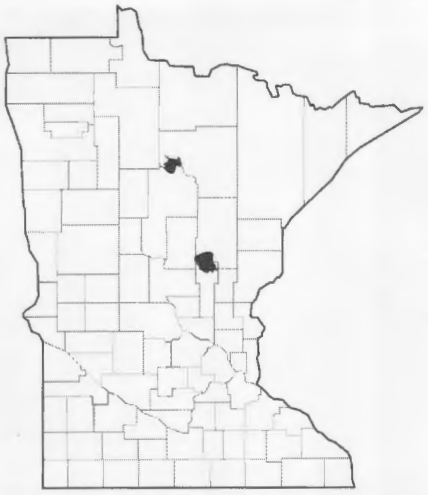

Figure 1. Location in Minnesota of Lake Winnibigoshish (north) and Mille Lacs (south).

possibly a Red Phalarope!

Sporadic counts of Bonaparte's Gulls were taken on Mille Lacs during this same period of time, but it was not until the fall of 1998, while weekly surveys were being conducted for a study of premigratory fall staging by the Common Loon (Hertzel *et al.* 1999), that numbers and ages of Bonaparte's Gulls on Mille Lacs were systematically recorded. These data were analyzed with the 1997 and 1998 counts from Lake Winnie in order to compare the magnitude and timing of fall staging by the Bonaparte's Gull on these two Minnesota lakes (Figure 1).

Other large lakes in northern Minnesota, including Lake of the Woods, Leech Lake, Upper and Lower Red Lake, and Lake Vermilion, may serve as staging areas but these have not been systematically surveyed during fall migration. Along the south shore of Lower Red Lake in Beltrami County, an estimated 5,000 Bonaparte's Gulls were present on 27 August 1998 (Johnson 1998–99); this apparently represents a record high count in Minnesota. Most of the state's high counts (Bardon, in press) are from spring, although Terry Savaloja estimated that 2,000 Bonaparte's were on Mille Lacs on 7 August 1973 (Janssen and Baumhofer 1974) and 1,750 were counted at Agassiz N.W.R. by the refuge staff on 19 September 1970 (Eckert and Egeland 1971).

Bonaparte's Gull was named by George Ord, a Philadelphia scientist, in honor of the French zoologist, Charles Lucien Bonaparte (Terres 1980). The species breeds throughout much of Alaska and Canada as far south as southeastern Alaska, central British Columbia, southwestern and central Alberta, central Saskatchewan, southern Manitoba, central Ontario, Wisconsin, and south-central Quebec (Godfrey 1986, AOU 1998). On their breeding grounds in the muskeg bogs of Canada, they are mainly insectivorous (Bent 1921). During mass emergences of winged insects, Bonaparte's Gulls have been observed "hawking" insects in flight (Braune 1987b). They typically forage by plunging into or dipping down to the surface of the water for small fish, crustaceans, euphausiids, and other invertebrates (Braune and Gaskin 1982, del Hoyo *et al.* 1996). While swimming or wading, they may also pick at insects trapped in the surface layer (Kaufman 1996).

Methods

Numbers of Bonaparte's Gulls staging on Lake Winnibigoshish in north-central Minnesota were determined by systematic shore-based surveys on 17 dates from 11 August through 16 November 1997, and on 15 dates from 15 August through 22 November 1998. Lake Winnie is a 28,256 hectares shallow lake in Cass and Itasca counties, well-known for sport fishing and waterfowl hunting. Counts were made from 12 shore locations (Figure 2), from Bowen Lodge on Sugar Bush Point, then around the lake clockwise to the Lake Winnie Campground, located just north of the Mississippi River inflow. North of this campground to Third River Flowage and then along the north shore as far east as Gull Point, there are no

Figure 2. Lake Winnibigoshish showing the 12 shoreline survey points.

Figure 3. Mille Lacs showing the 28 shoreline survey points.

readily accessible locations for counting from shore.

Numbers of Bonaparte's Gulls staging on Mille Lacs in east-central Minnesota were determined by systematic shore-based surveys on 16 dates from 10 August through 16 December 1998. Mille Lacs is a 53,628 hectares shallow lake in Aitkin, Crow Wing, and Mille Lacs counties, approximately 80 miles southeast of Lake Winnie. It is also well-known for walleye and other sport fishing. Counts were made from up to 28 shore locations around the entire lake (Figure 3), although gulls seen while driving between two locations were also included in the totals. The itinerary was designed for optimal light conditions, i.e., counts were made from the east shore in the morning and proceeded in a clockwise fashion around the lake.

For both Lake Winnie and Mille Lacs, counts were made through a spotting scope except along the shoreline where binoculars were sufficient for counting and aging the gulls. The amount of time spent counting at each shoreline location varied, depending upon the number of birds present. Flocks containing more than 300 gulls were counted three times and the median number was recorded. Gulls were counted one at a time whenever possible. Flocks in flight were usually counted by groups of ten. Flocks that were actively feeding along the shoreline were especially challenging to count. However, they often settled onto the water where they could be recounted.

Adults and "immatures" were counted separately at each location. When distance or light conditions precluded accurate determination of age, they were recorded as unaged gulls. Time of day, wind speed and direction, cloud cover, and lake surface conditions were recorded at the beginning and end of each survey, and also whenever conditions changed significantly. Totals by age and the number of minutes spent counting were recorded at each stop on data sheets designed for this study.

Results

Lake Winnibigoshish. The first count of more than 1,000 Bonaparte's Gulls on Lake Winnie during fall 1997 was on 2 September (Table 1). The highest 1997 totals occurred between 20 September, when 2,276 gulls were counted, and 20 October, when 2,577 were counted. More than 1,500 were consistently surveyed on Lake Winnie for nearly two months (14

Date	Gulls	Adults	Immatures	Unaged	Time of Survey
11 August	79	54	2	23	11:00 A.M.– 1:25 P.M.
17 August	609	190	26	393	4:30 P.M.– 7:48 P.M.
24 August	675	397	28	250	8:40 A.M.– 12:27 P.M.
2 September	1051	163	34	854	2:45 P.M.– 7:05 P.M.
8 September	1332	164	11	1157	9:40 A.M.– 3:00 P.M.
14 September	1565	313	7	1245	10:05 A.M.– 2:50 P.M.
20 September	2276	168	12	2096	3:45 P.M.– 7:30 P.M.
27 September	1879	293	39	1547	3:58 P.M.– 7:20 P.M.
4 October	2139	200	150	1789	2:55 P.M.– 7:05 P.M.
6 October	2527	1485	157	885	9:00 A.M.– 1:00 P.M.
11 October	2480	1063	242	1175	1:45 P.M.– 6:00 P.M.
20 October	2577	1444	55	1078	10:00 A.M.– 4:15 P.M.
24 October	1588	1278	89	221	10:45 A.M.– 3:30 P.M.
27 October	1711	855	63	793	8:40 A.M.– 4:20 P.M.
3 November	1597	1252	11	334	10:30 A.M.– 3:40 P.M.
9 November	1515	1080	23	412	9:40 A.M.– 2:10 P.M.
16 November	1	1	0	0	9:05 A.M.– 1:10 P.M.

Table 1. Fall 1997 census of the Bonaparte's Gull on Lake Winnibigoshish.

Date	Gulls	Adults	Immatures	Unaged	Time of Survey
15 August	636	349	46	241	1:45 P.M.– 6:20 P.M.
22 August	632	318	33	281	3:00 P.M.– 7:35 P.M.
5 September	1386	294	21	1071	2:10 P.M.– 7:40 P.M.
14 September	1658	525	43	1090	12:45 P.M.– 6:55 P.M.
21 September	1405	380	16	1009	11:35 A.M.– 6:40 P.M.
27 September	1553	290	8	1255	2:42 P.M.– 7:25 P.M.
4 October	1548	971	13	564	1:00 P.M.– 4:55 P.M.
10 October	1014	410	107	497	11:55 A.M.– 4:30 P.M.
14 October	1365	318	78	969	7:45 A.M.– 2:00 P.M.
21 October	1226	578	55	593	8:30 A.M.– 2:35 P.M.
25 October	1713	365	24	1324	7:20 A.M.– 1:45 P.M.
1 November	772	500	32	240	11:10 A.M.– 3:35 P.M.
8 November	1206	654	72	480	8:50 A.M.– 3:08 P.M.
15 November	826	770	9	47	8:55 A.M.– 2:00 P.M.
22 November	2	2	0	0	9:40 A.M.– 12:10 P.M.

Table 2. Fall 1998 census of the Bonaparte's Gull on Lake Winnibigoshish.

Date	Gulls	Adults	Immatures	Unaged	Time of Survey
10 August	102	85	11	6	9:40 A.M.– 2:13 P.M.
17 August	88	41	3	44	10:48 A.M.– 3:38 P.M.
24 August	80	61	6	13	11:25 A.M.– 4:55 P.M.
1 September	122	72	11	39	9:10 A.M.– 2:45 P.M.
7 September	488	382	19	87	9:10 A.M.– 1:55 P.M.
21 September	438	184	2	252	9:45 A.M.– 2:30 P.M.
5 October	502	388	17	97	9:38 A.M.– 3:12 P.M.
11 October	842	796	11	35	1:50 P.M.– 5:55 P.M.
20 October	1014	762	11	241	9:35 A.M.– 3:29 P.M.
27 October	1223	726	11	486	9:38 A.M.– 4:03 P.M.
2 November	1544	1160	12	372	9:00 A.M.– 3:00 P.M.
9 November	1298	1095	45	158	7:00 A.M.– 1:05 P.M.
20 November	477	457	9	11	10:45 A.M.– 2:05 P.M.
22 November	322	321	1	0	2:00 P.M.– 5:00 P.M.
27 November	447	436	4	7	1:20 P.M.– 4:40 P.M.
8 December	187	187	0	0	?
16 December	295	294	1	0	?

Table 3. Fall 1998 census of the Bonaparte's Gull on Mille Lacs.

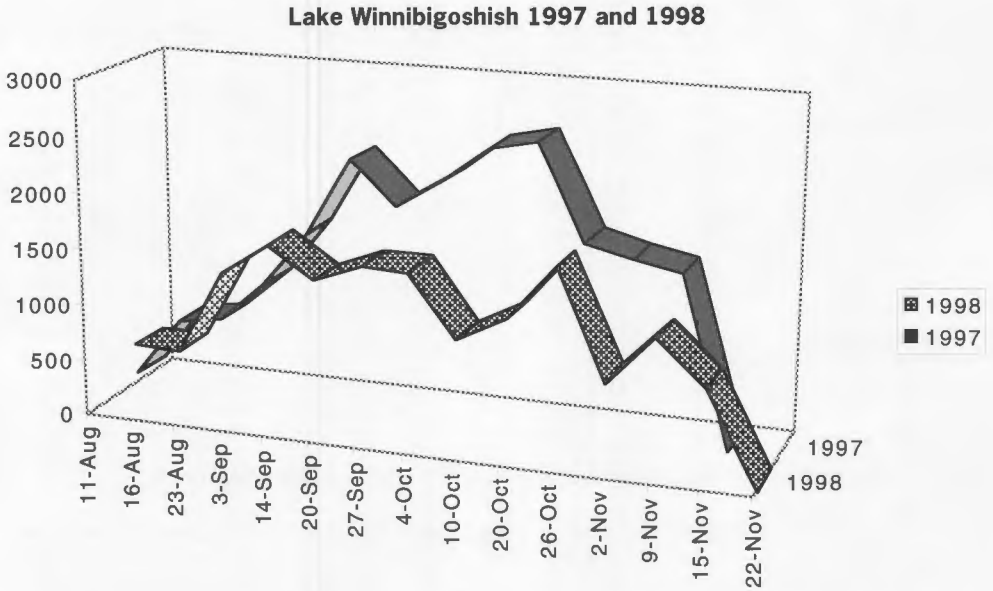

Figure 4. Comparative counts of the Bonaparte's Gull on Lake Winnibigoshish, 11 August to 16 November 1997 and 15 August to 22 November 1998. Dates shown are approximate.

September through 9 November) during fall 1997. The final exodus in mid-November was dramatic, from 1,515 on 9 November to a single adult only one week later!

During fall 1998, the first count of more than 1,000 Bonaparte's Gulls on Lake Winnie again occurred in early September (Table 2). However, the peak counts were significantly smaller in 1998 than in 1997 (Figure 4). The highest 1998 totals occurred between 14 September, when 1,658 were counted, and 25 October, when 1,713 were counted. Except for the total of 772 on 1 November, more than 1,000 were consistently present on Lake Winnie in 1998 for approximately the same two month period of time as the previous fall (Figure 4).

Large feeding flocks comprised of several hundred to a thousand or more gulls were encountered most commonly along the east shoreline of Haubrich's Bay, Bena Flats, Richard's Townsite, and along the southwest shoreline on both sides of Judd's Resort. During windy conditions, the gulls usually foraged along the windward shore. The highest counts made from Bena during either of these two years were 1,185 gulls on 6 October 1997, 1,056 on 27 October 1997, and 1,058 on 3 November 1997. The highest counts from Richard's Townsite were 1,524 gulls on 11 October 1997, 920 on 27 October 1997, and 888 in two large flocks on 20 October 1997.

Maintenance activities (bathing and preening) took place in shallow waters that were sheltered from the wind, especially those areas with emergent vegetation near the shoreline, such as Haubrich's Bay, Tamarack Bay, Bena Flats, and along the west shoreline between Judd's Resort and the Mississippi River inflow. Bonaparte's Gulls consistently loitered at Gull Point on the northeast shore, the beaches and sandbars east of Bena, and the breakwater at Judd's Resort.

The number of immature Bonaparte's

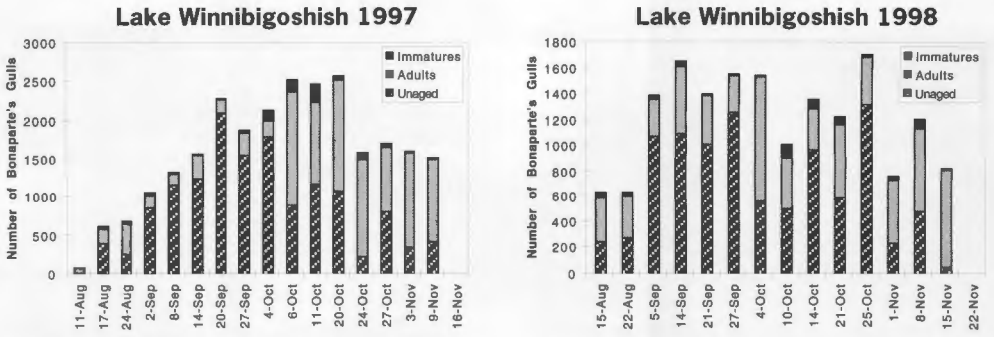

Figure 5. Aged and unaged proportions of Bonaparte's Gulls surveyed on Lake Winnibigoshish, 11 August to 16 November 1997 (left) and 15 August to 22 November 1998 (right).

Gulls on Lake Winnie (Figure 5) peaked at about the same time in both 1997 (242 on 11 October) and 1998 (107 on 10 October). The peak proportion (10.5%) was identical both years. The highest counts of immatures were consistently at the Lake Winnie Dam, where they frequently outnumbered adults. The highest ratios of immatures to total number of gulls counted at the Lake Winnie Dam in 1997 were 123 of 272 on 4 October, 146 of 157 on 6 October, 234 of 316 on 11 October, and 44 of 61 on 20 October. The highest ratios at the dam in 1998 were 102 of 105 on 10 October, 54 of 86 on 14 October, 41 of 46 on 21 October, and 41 of 75 on 8 November.

Mille Lacs. The first count of more than 1,000 Bonaparte's Gulls on Mille Lacs during fall 1998 did not occur until 20 October (Table 3). In contrast to Lake Winnie, more than 1,000 were consistently present for only about three weeks (Figure 6). The high count of 1,544 on 2 November 1998 was lower than the peak counts on Lake Winnie for either 1997 or 1998. Mille Lacs stayed open later than usual in 1998 and an impressive 295 Bonaparte's Gulls were still present on 16 December, more than three weeks later than the last sighting on Lake Winnie.

Large feeding flocks consisting of hundreds of gulls were found on Mille Lacs, along the north shore between Wealthwood and Malmo, along the west shore on Wigwam and St. Albans Bays, and in the Garrison area. As on Lake Winnie, the largest flocks were found foraging along the windward shore during windy conditions. Even on calm days, flocks were sometimes found feeding in these areas. On several occasions, flocks foraged near small creek inlets (Seguchie, Garrison, Reddy, Grave, and Seventeen Creeks) in the fashion described by Wolf and Gill (1961).

Maintenance activities were again observed in areas that were relatively sheltered from the prevailing winds. Bathing and preening locations with emergent vegetation included Isle Bay, Wahkon Bay, Vineland Bay, Wigwam Bay, St. Albans Bay, and near the boat launch on Garrison Bay. Bonaparte's Gulls were found loitering on sandy beaches and sandbars near the Ogechie Lake outlet on Vineland Bay, and along the north shore of Mille Lacs, especially at the Carlsona Beach Club and Reddy Creek Beach.

The number of immatures on Mille Lacs peaked at 45 on 9 November 1998, almost one month later than on Lake Winnie (Figure 7). This appeared to correlate with a secondary influx of immatures onto Lake Winnie in 1998. There may have been a small buildup of immatures on Mille Lacs during late August and early September 1998 but these data

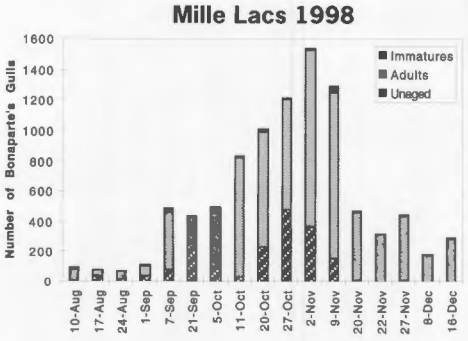

Figure 6. Aged and unaged proportions of Bonaparte's Gulls surveyed on Mille Lacs, 10 August to 16 December 1998.

must be interpreted cautiously, as only three surveys were conducted from 7 September to 5 October. September counts of immatures on Lake Winnie must also be interpreted cautiously, since the majority of gulls were unaged, but up to 7.5% of the gulls on Lake Winnie during August were aged as immatures. As on Lake Winnie, the proportion of immature Bonaparte's Gulls on Mille Lacs never exceeded 10.5% of the total number surveyed.

Discussion

The data presented here confirm that Lakes Winnibigoshish and Mille Lacs are significant fall staging areas for the Bonaparte's Gull in Minnesota. High counts on Lake Winnie in 1997 were among the greatest ever documented in Minnesota during autumn migration (Bardon, in press). In direct comparison to Mille Lacs, higher numbers were found on Lake Winnie each week during fall 1998, through the end of October. The peak count on Mille Lacs was obtained on 2 November 1998. Peak counts on Lake Winnie occurred between late September and late October in both 1997 and 1998. By the third week in November, virtually no Bonaparte's Gulls remained on Lake Winnie but at least in 1998, a few hundred lingered on Mille Lacs through mid-December. The fall buildup appeared more gradual on Mille Lacs compared to Lake Winnie, and peaked one to two weeks later.

Bonaparte's Gulls leave their nesting grounds during August and September, migrating in loose flocks of hundreds or thousands (Braune 1989). Beardslee (1944) documented an early wave of migrants through the Niagara River and eastern Lake Erie region in August and September, which thinned out in October; this was followed by a large wave of migrants in November and December. They generally follow river systems, forming large concentrations in fall, e.g. 100,000 at Niagara Falls on 15 November 1986 (Weir 1987). Braune (1989) suggested that most of the Bonaparte's Gulls from Ontario and Quebec migrate toward the east coast of North America, while those from the Prairie Provinces migrate toward the lower Great Lakes and then down the Mississippi River system to the Gulf Coast.

Taylor (1993) interpreted data from 17 years of observation in southeastern Manitoba with Beardslee's observations and Braune's comments in mind. Taylor suggested that the large flocks of Bonaparte's Gulls found lingering along the south shore of Lake Winnipeg into late October and early November, well after the late September peak of a drawn-out migration along the Winnipeg River, might contribute to this late fall influx into the lower Great Lakes. At least ten late fall counts of a thousand or more Bonaparte's Gulls in the south basin of Lake Winnipeg were cited; the largest of these was 6,500 on 21 October 1990, over 99% of which were adults (Taylor 1993). However, he noted that this late fall departure of large flocks from Lake Winnipeg was a poorly understood event and stated "the indirect route via the lower Great Lakes to the Mississippi, proposed by Braune (1989), seems improbable" since it would be more logical for flocks already on eastern Lake Erie and the Niagara River to continue on to the Atlantic Coast.

Taylor then proposed two different mi-

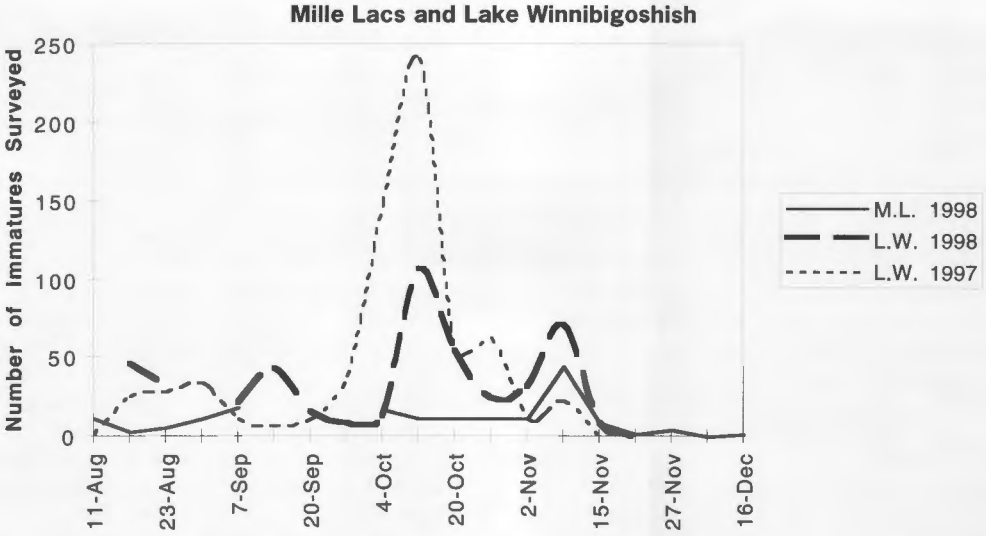

Figure 7. Immature Bonaparte's Gulls on Mille Lacs, fall 1998 (solid line), and on Lake Winnibigoshish, fall 1998 (dashed line) and fall 1997 (dotted line). Dates are approximate.

gratory strategies out of southeastern Manitoba in the fall: immatures and some adults appear to withdraw gradually from the province by migrating along river systems, but large numbers of adults linger on Lake Winnipeg while molting their flight feathers before making a rather abrupt exodus in late October or early November. Based on Christmas Bird Count data from the early 1980s, Braune (1989) concluded that the majority (60%) of Bonaparte's Gulls in North America use the Mississippi flyway during their autumn migration. Although migration may not always seem logical, one of the most direct routes from southeastern Manitoba to the Gulf Coast could include staging on Lake of the Woods and other large lakes in northern Minnesota, such as Winnibigoshish and Mille Lacs, before reaching the Mississippi River system. Research with gulls banded or marked during fall staging on Lake Winnipeg might answer some of these questions. Fall migration surveys of Lake of the Woods, Upper and Lower Red Lake, Leech Lake, and along the Mississippi River, e.g. at the Upper Mississippi River Wildlife and Fish Refuge, would add Minnesota pieces to this continental puzzle.

The Bonaparte's Gull is a "two-year gull" with a juvenal plumage that is distinctive (Grant 1986) but not depicted in standard field guides (field guides show first-winter birds). A few migration studies (e.g. Beardslee 1944, Braune 1987a) have distinguished between first-year and second-year immatures, as well as adults. However, unless seen well at close range, by mid-August when surveys began on lakes Winnibigoshish and Mille Lacs, and certainly by early October, second-year birds completing pre-basic molt would not be distinguishable from adults in basic plumage. Therefore, no attempt was made to differentiate between the ages of "immature" gulls in this Minnesota study, but most of the immatures are presumed juveniles.

During more than two decades of observation, less than 3% of the many thousands of Bonaparte's Gulls moving through the Niagara River and eastern Lake Erie region each fall were juveniles

(Beardslee 1944). In southeastern Manitoba (Taylor 1993) the proportion of juveniles in each flock was highly variable (up to 85% but mostly less than 30%) during fall migration along the Winnipeg River. It should be noted that about 80% of these observations were at sewage lagoons; these may be particularly attractive to immatures because of the easy availability of prey, including emerging swarms of insects that would enhance their foraging success. Although data are not available, it is my impression that in northwestern Minnesota, juveniles comprise a higher proportion of the flocks found on sewage lagoons, compared to the flocks found on large lakes in the same region. Digesting such data would be an interesting research project!

Braune (1987b) studied Bonaparte's Gulls during autumn migration through the Quoddy region off New Brunswick, Canada, from 1978 through 1984, and found that seasonal variation in diet was directly related to natural cycles in food availability; there was no significant difference between the diets of juvenile and adult birds. However, immature Bonaparte's Gulls have been shown to forage less efficiently than adults (Braune and Gaskin 1982, MacLean 1986). Food type, method of feeding, habitat selection, habitat location, intraspecific competition, and environmental factors can also affect foraging efficiency (Braune and Gaskin 1982, Burger 1988). Burger (1987) studied foraging efficiency in 15 species of gulls and found that efficiency generally increased with age. At Lake Winnibigoshish, juveniles were consistently found foraging over the turbulent waters of the tailrace just below the dam, where the Mississippi River continues its journey toward the Gulf Coast. This churning probably stuns or brings small fishes to the surface. The highest counts of juveniles on Lake Winnie were always at or near this dam.

At Mille Lacs, there were no similar patterns of occurrence by age, although juveniles often were present near the outlet of Lake Ogechie along the southwest shoreline. From time to time, the sewage lagoon at Cove was checked during the surveys and when Bonaparte's Gulls were present, the majority were juveniles.

During September and early October on Lake Winnie, juvenile and adult Bonaparte's Gulls were consistently found associating with small feeding flocks of Common Loons (*Gavia immer*). The gulls actively foraged by swimming towards the loons and picking at the surface, or by dipping down to the surface while in flight, after the loons surfaced from a dive. A few of these feeding flocks included Horned Grebe (*Podiceps auritus*) and Red-necked Grebe (*P. grisegena*). Similar interactions have been reported between Hooded Mergansers (*Lophodytes cucullatus*) and Bonaparte's Gulls (Steadman and Steadman 1989).

Acknowledgments

I am indebted to Anthony Hertzel for patiently counting Bonaparte's Gulls during his weekly loon surveys on Mille Lacs during the fall of 1998. I also thank Karen Sussman for her valuable assistance and unflagging enthusiasm throughout dozens of surveys on Lake Winnie. Karl Bardon, Steve Carlson, Kim Eckert, and Ann Hertzel also helped on several counts; I thank them all for participating. Anthony Hertzel created several of the graphics and guided this paper through its final stages before publication. Additional thanks to Karl Bardon and Birgit Braune for reviewing an earlier draft and offering helpful comments. I am grateful to the many resort owners on Lakes Winnibigoshish and Mille Lacs who granted permission to count birds from their property; special thanks to my friends at Bowen Lodge and Judd's Resort on Lake Winnie.

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The Winter Season
(1 December 1998 to 28 February 1999)

Karl Bardon

Five new species were added to the cumulative list of birds found in winter. The Greater Yellowlegs, Spotted Sandpiper, and Franklin's Gull were all Regular species seen on record late dates. Two Accidental species were also recorded: the Eurasian Collared-Dove was seen at three locations and the state's third Mew Gull was photographed in Duluth.

Another balmy winter in Minnesota! December was exceptionally mild and most lakes throughout the state remained open through mid-month (as much as a month later than normal). As a result, many waterbirds were reported in record numbers. Very few of these lingering masses overwintered, however; most species of waterbirds departed on schedule by early January, probably due to a brief return to normal temperatures. The remainder of the season was relatively quiet, with mild weather, little snowfall, and few birds. With only a few exceptions, landbirds seemed more scarce than last winter. Not unexpectedly, northern owls and winter finches staged almost no southward movement.

Nearly all species of waterbirds were reported in record numbers or on record late dates. The numbers reported were more typical for early November than early December. For example, the following estimates were made at the Reno Bottoms, Houston Co. on 7 December: 6,000 **Tundra Swans**, 40,000 **Canvasbacks**, 3,000 **Ring-necked Ducks**, 500 **scaup**, 2 **White-winged Scoters**, 1 **Oldsquaw**, 160 **Buffleheads**, 1,500 **Common Goldeneyes**, and 1,930 **Ruddy Ducks**. Observers are reminded however, that most of these birds (and most reports of waterfowl at the Reno Bottoms) are actually in Wisconsin waters.

Among the multitudes of lingering waterfowl, the highlight was a single **Ross's Goose** which was seen by many observers through the Faribault Christmas Bird Count (CBC) on 19 December. Other noteworthy reports include a record number of **Double-crested Cormorants** (with one individual overwintering at Fergus Falls, Otter Tail Co.), record late dates for both **Horned** and **Western Grebes**, as many as seven **Mute Swans** (probably not a highlight!), only the second winter report of **Blue-winged Teal** in the past ten years, a record late **Black Scoter**, a record number of **White-winged Scoters**, and multiple reports of **Oldsquaw** away from Lake Superior.

There was an interesting influx of waterfowl into the Metro region in late January. A single immature male **Greater Scaup** and two **Lesser Scaup** showed up at Lake Rebecca, Dakota Co., on 30 January, and additional **Lesser Scaup** as well as another **Greater Scaup** were found at this location later in February. Also of interest was the apparent arrival of three **Red-breasted Mergansers**, one male **Canvasback**, and a **Lesser Scaup** along the Mississippi River in South St. Paul on 28 January. Regular checks of this location earlier in the month had not turned up these individuals. Do such records represent the extreme of early migrants, or were these birds overwintering locally, perhaps moving north a few miles with the advent of a return to above average temperatures?

Not surprisingly, many species of raptors also were reported in record num-

bers. **Northern Harriers**, **Rough-legged Hawks**, and **Golden Eagles** were all widespread in December. There were indications that many of these individuals probably were still moving southward as late as 19 December when the beginning of the CBC period produced multiple reports of Golden Eagles (including four at Duluth!) and Northern Harriers. **Sharp-shinned** and **Cooper's Hawks**, as well as **Red-tailed Hawks** were also more widespread than in previous winter seasons.

Here's a sample of sightings which indicated that something unusual was definitely happening out there this winter: a **Virginia Rail** was seen swimming across openings in the marsh at the Old Cedar Avenue Bridge, Hennepin Co., on 21 January; a **Sandhill Crane** was spotted at Sherburne NWR on 6 December; a mixed flock of 11 **Killdeer** and 32 **Common Snipe** was found in a mudflat at Brownsville, Houston Co., on 7 December; a **Greater Yellowlegs** was seen in Fillmore Co. on 5 December; a **Spotted Sandpiper** was watched at the marina in Grand Marais, Cook Co., on 16 December; a **Franklin's Gull** joined a flock of Ring-billed Gulls in a field in Waseca Co. on 1 December and another **Franklin's Gull** was seen in Dakota Co. on 5 December. All of these sightings are exceptional for the season, and taken together, give strong testimony about the winter possibilities in our state during exceptionally mild weather.

Nine species of gulls were seen in December. There were an estimated 15,000 **Ring-billed Gulls** at various sites in the southern part of the state in early December — once again, such numbers are more typical for early November. Mille Lacs Lake stayed open until 17 December, allowing **Bonaparte's Gulls** to linger there later than ever before, while another Bonaparte's Gull seen in Washington Co. on 19 December set a record late date. As many as four **Lesser Black-backed Gulls** were found, including a first-winter individual which lingered in the Metro region until 4 January, another new record late date. The now-Regular **Great Black-backed Gull** was sighted in Duluth on 24 December, no doubt a wanderer from the landfill in Superior, Wisconsin, where a first-winter bird was documented overwintering. Checking landfills in Sherburne and Wright counties produced first county records of **Glaucous Gull**, and continued monitoring of landfills in the Twin Cities area resulted in a duplicate of last winter's peak count of at least eleven **Thayer's Gulls** in Dakota Co. The state's second report of a hybrid **Glaucous** X **Herring Gull** ("Nelson's Gull") came from Dakota and Hennepin counties in late December (***The Loon*** 71:54–55). But overshadowing all of these larids was an adult **Mew Gull** at Canal Park in Duluth, only the third state record, and the first to be documented by photograph.

Even though the state's first **Eurasian Collared-Dove** did not occur until May 1998, there were no fewer than three reports of this expanding species during winter 1998–99, including those which had been initially found at Lynd, Lyon Co., in November. Will this species spread throughout the state as dramatically as the House Finch?

The near absence of northern owls was compensated for by near record numbers of both **Short-eared** and **Long-eared Owls**. Anthony Hertzel, Paul Hertzel, and Benjamin Hertzel specialized in finding Long-eared and **Northern Saw-whet Owls** by searching suitable stands of conifers this season; they discovered Long-eared Owls in no fewer than 14 counties. Although these numbers may reflect an exceptional year for Long-eareds, their results also show that these owls are out there if skilled, knowledgeable observers are willing to look for them.

As mentioned earlier, passerines were difficult to find, and in general seemed to be present in lower numbers than normal. Compare the dearth of most species of sparrows, **Hermit Thrushes**, blackbirds, and other passerines to the record number of reports for these same species last year. It is quite possible that the intense low pressure system which passed

through the state in early November caused the departure of many passerines which otherwise would have lingered.

A few other species of passerines, however, were found in exceptional numbers. Extraordinary numbers of **Horned Larks** and **Lapland Longspurs** were present in western and southern regions in December and January — apparently far more than in any previous winter season. Especially intriguing were the many reports of hundreds of Lapland Longspurs in early January. Did these represent lingering fall migrants, overwintering birds, or returning spring migrants? Massive numbers of **American Robins** were present in the southeast, with a peak of 1,233 on the new Whitewater CBC, a number higher than any previous cumulative CBC total. Equally massive were the flocks of **Bohemian Waxwings** throughout the northern regions. Although many observers understandably predicted an invasion of waxwings into southern regions by late winter, with few exceptions they did not stray farther south. Apparently, the existence of mature ornamental fruit trees (crab apple and mountain ash) in towns throughout the northern regions nearly precludes the possibility of this species occurring in the south in any numbers. Notable numbers have not been seen in the south since the mid-1980s.

A few other noteworthy passerines were discovered, including a tail-less **Orange-crowned Warbler** in Duluth on 18 December, both a **Chipping Sparrow** and a **Yellow-headed Blackbird** on the Fergus Falls CBC, as many as four different **Carolina Wrens**, and a **Marsh Wren** calling in the same location as last winter's individual at the Bass Ponds, Hennepin Co. A **Gray Catbird** was carefully documented as it overwintered at the latter location, providing only the third such record for the state.

Imagine a Duluth Christmas Bird Count when only one **Pine Grosbeak**, one **Evening Grosbeak**, and fourteen **Common Redpolls** were counted! This was definitely an exceptionally poor winter for observing "winter finches." One had to travel all the way to the Canadian border in northeastern Minnesota to find normal numbers of **Pine** and **Evening Grosbeaks,** while redpolls were generally absent throughout the state. Indeed, redpoll numbers were one of the lowest totals reported in over twenty years. As with most non-redpoll winters, there were large flocks of **American Goldfinches** in the north, and this turned out to be one of the best winters ever for this species throughout the state. Although there were modest numbers of both crossbills in the north, only a few south reports were received. And finally, **Pine Siskins** were quite scarce, except at the end of the period in northern regions.

KEY TO SEASONAL REPORTS

1. Species listed in upper case **(LEAST TERN)** indicate a Casual or Accidental occurrence in the state.
2. Dates listed in bold **(10/9)** indicate an occurrence either earlier, later or within the earliest or latest dates on file.
3. Counties listed in bold **(Aitkin)** indicate an unusual occurrence for that county.
4. Counties listed in underline **(Aitkin)** indicate a first county record.
5. Counties listed in italics (*Aitkin*) indicate a first county breeding record.
6. Brackets [ ] indicate a species for which there is reasonable doubt as to its origin or wildness.

The Season publishes reports 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.

Common Loon
Eight reports from seven counties — a record number (the average number of reports per winter over the last twenty years is only one). Late north 12/5 Becker BK, 12/12 Beltrami DJo, 12/16 Mille Lacs KB. Late south 12/1 Carver KB, 12/5 Hennepin (two on Lake Harriet) SC, 12/9 Hennepin (Medicine Lake) KB, 12/19 Washington BL, and the St. Paul CBC (12/19).

Pied-billed Grebe
Overwintered in Becker BBe, Dakota mob, and Olmsted CH, BBr. Mid-winter reports 1/12 Beltrami RgS and 1/13 Sherburne *fide* AH. An additional seven reports of late migrants in six southern counties through early January.

Horned Grebe
All reports: Late north **12/16** Mille Lacs KB (record late north date away from L. Superior). Late south **12/12** Houston RJ, **12/22** Hennepin SC (record late south date).

Western Grebe
Reported **12/13** Rice JL (record late south date). Only the sixth winter record.

American White Pelican
All reports: Late south 12/1 Sibley KB, JD, 12/2 Wabasha BBr, 12/12 Houston RJ, FL, and the Albert Lea CBC (not overwintering?).

Double-crested Cormorant
Reported from a record 13 counties (20-year average is only 2). Overwintered in **Otter Tail** SDM (first overwintering report in north). Late north 12/8 Mille Lacs KB, SC, 12/11 Beltrami DJo, and **12/25** St. Louis PS. Late south 12/19 Wabasha KB, 12/19 Winona (Winona CBC), and 12/28 Dakota KB. Also reported 2/28 Goodhue JSt (early migrant?).

Great Blue Heron
Late north 12/2 St. Louis JN, and the Fergus Falls and Crookston CBCs. Reported from seven counties south. Only reports after 1/1 were 1/16 Ramsey (7) BL, 1/9 & 2/20 Washington TEB, and 2/25 Hennepin *fide* AH (early migrant?).

Greater White-fronted Goose
Early migrants noted **2/28** Big Stone (7) SDM.

Snow Goose
Overwintered (1/1–2/14) in Olmsted mob. Late north 12/19 on the Fergus Falls CBC (2). Odd February reports include 2/15–20 Wright SDM, KB (still present in March), and 2/6–27 Ramsey (6) BL, KB (also lingered into March). Late migrants (through early January) reported from an additional seven counties. CBC total 153, with several large flocks moving southward on 12/19, including 39 on the Minneapolis CBC, and 100 on the Faribault CBC.

Ross's Goose
Reported from Rice as late as the Faribault CBC (**12/19**). Second CBC record.

Ross's Goose, 12 December 1998, Faribault, Rice County. Photo by Karl Bardon.

Canada Goose
Reported from 54 counties throughout the state. CBC total 143,933, with 15 counts over 1,000 individuals, including 20,000 at Lac qui Parle, 25,000 at Marshall, and 33,000 at Rochester.

Mute Swan
All reports: 12/1 **Waseca** KB, early December **Wright** (present since 11/26 near Cokato) *fide* AH, Afton CBC (2), 1/14–2/3 Rice mob, 2/21 Wright (2, Monticello) DN, PJ. This species was formerly considered casual in winter.

Trumpeter Swan
Overwintering flocks were counted 12/23 Wright and Sherburne (360 on the Mississippi R. at Monticello) ML, and 12/27 Otter Tail (166 on the Otter Tail R.) SDM. Other possible overwintering included 12/26 & 1/29 Chisago (2, Wild River SP) RH, and 1/27 & 2/22 Morrison (5, Camp Ripley) WB. Widespread in late December with reports from 9 counties, including a CBC total of 197. Early south 2/15 Winona RJ. Early north **2/13** Beltrami (6) DJo, 2/19 Becker (3) BK, and 2/21 Becker (21) BBe.

Tundra Swan
Reported 2/20 Monticello, Wright Co. KB, where probably overwintered. Late north **12/16** Aitkin (Mille Lacs Lake) KB. Peak of 10,000 on 12/7 along Mississippi River from Weaver to Reno, but most individuals in Wisconsin. CBC total 2,353, including 19 at Excelsior, 909 at Winona, and 1,425 at LaCrosse. Also reported 12/16 Scott (12) PJ.

Swan, sp.
The following did not have adequate details and/or did not fall within established patterns of winter swan distribution: Rochester CBC (3 Tundra), St. Paul CBC (2 Tundra), 12/9 & 13 Rice (Tundra and Trumpeter), 2/17 Hennepin (Tundra), 2/20 Winona (Mute and Trumpeter reported by same observer), 2/23 Hennepin (Trumpeter), 2/24 Becker (Tundra). Further details are still welcome.

Wood Duck
Reported from 15 counties as far north and west as Clay. All reports after early January include: 1/18 & 1/28 Clay RO, 1/21–2/14 Todd JSK, SDu, 1/30 Benton KB, 1/30–2/19 Dakota (1–2 males) DBS, 2/5 Nicollet BSe, 2/20 Winona JSt, and 2/26 (early migrants?) Dakota (pair) KB, PJ. CBC total 34, with a peak of 20 at Bloomington.

Gadwall
Reported from 18 counties, including overwintering in Dakota and Scott, and additional mid-winter reports from Houston, Winona, Olmsted, Wabasha, and Hennepin. Peak of 144 on 2/2 Shakopee, Scott Co. KB. CBC total 1,120, including a peak of 687 at LaCrosse (includes birds in WI), and north reports from Duluth and Fergus Falls. Possible early migrants 2/13 Otter Tail SDM, 2/25 Cottonwood ED, and 2/27 Goodhue (3) BL.

American Wigeon
Reported from 15 counties. Possibly overwintered at Austin, Mower Co. where reported on Austin CBC (8) and 1/31 RRK (4). Late north 12/17 Clay RO, and the Duluth CBC (**12/19**). Late south **12/27** Dakota PJa, **12/28** Ramsey KB, **1/1** Scott RJ. CBC total 54. Potential early migrants 2/17 Freeborn ABa, 2/21 Wright PJ, DN.

American Black Duck
Reported from 18 counties as far west as Benton and Blue Earth.

Mallard
Reported from 49 counties throughout the state. CBC total a record 40,101, with nine counts over 1,000 birds. Peaks: St. Paul CBC (9,506), and 12/1 Faribault (10,000 on Minnesota Lake) KB.

Blue-winged Teal
Reported 12/12 Houston RJ.

Northern Shoveler
Reported from 13 counties. Only north report: 12/6, 12/17, & **1/28** Clay RO. Late south 12/25 Hennepin PJ, 12/27 Dakota

PJ. CBC total 445 (peak 385 at LaCrosse includes Wisconsin birds).

Northern Pintail
Reported from 14 counties. Overwintered at Black Dog Lake, Dakota Co. (11) PJ. Other mid-winter reports include: until 1/14 Hennepin SC, 1/26 Mower RRK. Late north (only reports) 12/4 St. Louis (3) JN and **12/17** Clay RO. CBC total 359, with a peak of 338 at LaCrosse (includes Wisconsin birds). Early south 2/28 Chippewa SDM.

Green-winged Teal
Overwintered at Black Dog Lake, Dakota Co. (55–60) PJ. Late north **12/17** Clay (2) RO and Duluth CBC. December migrants from six additional south counties, with a CBC total of 254, including 230 at LaCrosse (includes Wisconsin birds).

Canvasback
Reported from 16 counties. Late north (only reports) 12/8 Crow Wing KB, SC, 12/12 Beltrami DJo. All south reports after 12/27: 1/16 Goodhue BL, 2/8–2/28 Dakota (female) KB, PJ, 1/28–2/19 Ramsey (male) KB. CBC total 2,791 including 2598 at LaCrosse. Peak 12/7 Reno bottoms, Houston Co. (40,000) KB, most of which were in Wisconsin.

Redhead
All reports: Late north 12/12 Beltrami (5) DJo. Late south 12/7 Houston KB, 12/9 Hennepin RH, 12/17 Rice JL, 12/18 Lyon RgS, and Excelsior CBC (12/19). Mid-winter reports 1/28 Clay RO, 2/15–20 Wright SDM, KB. Early south 2/26 Washington KB, 2/27 Dakota TT, 2/27 Rice TBo.

Ring-necked Duck
Overwintered in Otter Tail SDM and Scott mob. Late north (only report) 12/12 Beltrami DJo. Late south: reported from seven additional counties through 1/1, including a CBC total of 75. Early south 2/21 Dakota TBr (not wandering from Blue Lake?), 2/26 Washington KB.

Greater Scaup
All reports: Late north 12/7 St. Louis (Duluth) KB, **12/16** Crow Wing (20, Mille Lacs Lake) KB. Late south 12/12 Houston RJ, FL, 12/19 Dakota (Bloomington CBC), 12/20 Hennepin (Lake Calhoun) SC, **12/21** Wabasha (Lake Pepin) KB. Unusual reports 1/30–2/28 Dakota (Lake Rebecca) DBS, mob, and 2/13 Goodhue (Red Wing) BL.

Lesser Scaup
Reported from 21 counties in all regions except the southeast. Overwintered in Otter Tail (7) SDM. Late north 12/16 Crow Wing and Cass KB, 12/18 Todd JSK, SD, and 12/19 St. Louis (Duluth CBC). Late south: seven counties through 12/24 including CBC total of 42. Potential extreme early south: 1/30–2/28 Dakota (Lake Rebecca) DBS, mob, and 1/28 Ramsey KB. Additional early south 2/22 Freeborn ABa, 2/27 Anoka SC and Scott (4) PJ.

Harlequin Duck
Reported from Lake Superior 12/12 St. Louis (2, Duluth) PS, and 12/20 Lake (Two Harbors) *fide* KE. Unusual reports on 12/16 Hennepin (Lake Minnetonka) *fide* AH, and 1/16 **Sherburne/Wright** (Monticello) KB, JD.

White-winged Scoter
All reports: Late north 12/4 Crow Wing (Mille Lacs Lake) KB, 12/11–12 Beltrami (Lake Bemidji) DJo. Late south 12/3 Washington (2, Forest Lake) KB, 12/3–12 Houston (Reno bottoms) FL, RJ (up to 3; not in Wisconsin?), **12/8–18** Anoka (2–3 on Centerville Lake) KB, mob, **12/19** Wabasha (Lake Pepin) KB.

Black Scoter
Reported **12/5** Lake (Two Harbors) JLi and **12/12** Washington (White Bear Lake) KB (record late date).

Oldsquaw
Reported from Lake Superior in Cook (overwintered) KMH, Lake (12/5 JLi) and St. Louis (absent 12/25–1/24) mob. Reported away from Lake Superior 12/3 Houston (Reno bottoms) FL (not in Wis-

consin?), 12/10 Meeker (Lake Ripley) RJ (found in November), 1/10–16 Wright (Monticello) KB, JD, 2/9–14 Dakota (Black Dog Lake) PJ, KB (same imm. male as seen at Monticello!), and 2/23–28 Anoka and Hennepin (Coon Rapids Dam) KB, mob.

Bufflehead
Overwintered in Otter Tail (2) and Scott (4). Not reported from L. Superior after December Late north 12/9 Beltrami DJo, 12/16 Mille Lacs KB, 12/25 Lake PS. Reported from nine additional south counties through 12/25, with a CBC total of 67. Only other south report after 12/25 was 2/7 Rice FKS.

Common Goldeneye
Reported from 33 counties throughout the state. Peak 1/10 Monticello, Wright Co. (3,100) KB.

Hooded Merganser
Reported from 13 counties. Overwintered in St. Louis (Virginia, fourth consecutive winter) NJ, Otter Tail (5), the Twin Cities (Scott, Dakota, Ramsey, Hennepin), possibly Goodhue, and perhaps even Wadena (12/31 & 1/24 PBi). Additional late north (all reports) 12/8 Crow Wing KB, 12/12 Beltrami DJo, 12/13 Todd JSK, SD, and 12/17 St. Louis (Duluth) JN. Early south 2/26 Dakota (12) PJ. CBC total 279 with a peak of 241 at Excelsior. Additional peak 12/8 Ramsey (328) KB.

Common Merganser
Reported from 28 counties throughout most of state. Peaks 12/7 Goodhue/Wabasha (15,000 on Lake Pepin) KB (less than normal, probably due to extensive open water farther north), 12/16 Cass (2,000 on Leech Lake) KB, 12/13 Otter Tail (4,000–5,000 on Otter Tail Lake) SDM, plus 5,489 on CBCs including 4,765 at Excelsior.

Red-breasted Merganser
Reported from the North Shore on the Duluth CBC, 2/7 Lake JL, and 2/21 St. Louis *fide* KE. Additional reports: through 12/16 Aitkin and Crow Wing (Mille Lacs Lake) KB *et al.* and **1/28–2/2** (overwintered?) Ramsey KB.

Ruddy Duck
Reported from 12 counties. Late north (only report) Fargo CBC (3). Late south 12/19 Carver (Excelsior CBC) and Winona (Winona CBC), and 12/22 Hennepin SC. Early south **2/24** Dakota PJ, 2/28 Lac Qui Parle (2) and Chippewa (3) SDM. Peak 12/7 Reno Bottoms, Houston Co. (1,930 includes some Wisconsin birds) KB.

Bald Eagle
Reported from a record 52 counties throughout the state, with a record CBC total of 656, including a peak of 118 at Winona.

Northern Harrier
Late north 12/6 Clay SDM, and 12/9 Wilkin SDM. Reported from 13 counties south through 1/6 Dakota AH, including a record CBC total of 19. None overwintered. Early south 2/17 Fillmore NO, AO, 2/19 Fillmore (6) NO, AO and Mower RRK, 2/21 Anoka *fide* AH, and 2/26 Houston EMF.

Sharp-shinned Hawk
Reported from a record 11 north and 21 south counties, with reports evenly distributed throughout the season. CBC total 27.

Cooper's Hawk
Reported from a record 18 south counties, plus the Fergus Falls CBC and 2/25 Becker BBe in the north. CBC total 21. Reports fairly evenly distributed throughout the season.

Northern Goshawk
Ten reports from eight counties, all but one in the north — the lowest total since 1988. CBC total 4.

Red-shouldered Hawk
Late north **12/16** Otter Tail SDM. Overwintered south in Hennepin, Washington,

Dakota, Wabasha, and Winona. CBC total 5.

Red-tailed Hawk
Reported from a record 48 counties as far north as St. Louis (Duluth), 12/27 Beltrami PS, and the Warren CBC. CBC total a record 600. Two unusual subspecies reported: a dark morph immature (*B. j. calarus/harlani*) was seen 1/4 Ramsey KB, and an immature Krider's (*B. j. krideri*) was described 1/17–2/20 Dakota DBS, SWe, TT.

Rough-legged Hawk
Reported from a record 56 counties (previous record 43 in 1994–95), but generally in low numbers. Peaks reported at Carlos Avery WMA, Anoka Co. on 12/20 (23) and again on 2/21 (19) PKL, with few if any overwintering in this area. CBC total 106, with peaks at Cedar Creek (10) and Sherburne NWR (13).

Golden Eagle
At least 17 individuals reported from ten counties, including at least three in the Whitewater WMA vicinity, plus 12/5 Houston JSt, 1/6 Becker BBe, 2/7 Morrison WB, 2/13 Wadena ABo, 2/14 Mower RRK, and the following CBCs: Duluth (4), Sherburne NWR, Long Praire (2), Beltrami Island, and Tamarac NWR. Additional reports by JN from Duluth, St. Louis Co. were 1/24 (2), 2/8, & 2/17.

American Kestrel
Reported from 44 counties as far north as St. Louis (Duluth), Becker and Clay. CBC total 72.

Merlin
Approximately 21 individuals reported from 15 counties throughout the state. CBC total 7.

Gyrfalcon
No reports.

Peregrine Falcon
Overwintered in St. Louis (Duluth), Hennepin, Ramsey and Dakota.

Prairie Falcon
Reported in February at the Hiawatha Ave. grain elevators, Minneapolis, Hennepin Co. for the second consecutive winter.

Gray Partridge
Reported from 17 counties in range. CBC total 72, with a peak of 38 at Warren.

Ring-necked Pheasant
Reported from 41 counties in range. CBC total 650.

Ruffed Grouse
Reported from 31 counties in range. CBC total 179. The report of drumming on 12/2 Fillmore NO, AO seemed unusual.

Spruce Grouse
Only reports from Lake. Peak 2/22 Lake (27 males on Co. Rd. 2) DE (***The Loon*** 71:166–167).

Sharp-tailed Grouse
Reported from Aitkin and St. Louis, plus the International Falls (3), Baudette (count week) and Warren (22) CBCs.

Greater Prairie-Chicken
Only reported from Otter Tail and Wilkin.

Wild Turkey
Reported from 26 south counties plus Becker in the north. CBC total a record 988.

Northern Bobwhite
Probable escapee 1/26 Freeborn ABa.

Virginia Rail
Reported 1/21 Hennepin (Old Cedar Ave Bridge) SC.

American Coot
Reported from 16 counties. Overwintered in Otter Tail (3), Scott (14), and possibly Goodhue (reported 1/19, 2/20, 2/28). Late north **12/26** Cook KMH. Late south: reported from 12 counties through late December CBC total 628 including 427 at Excelsior. Early south 2/27 Dakota PJ, and 2/28 Rice (3) JL. Peaks 12/7 Winona, Winona Co. (300+) KB, and 12/11–17

Forest Lake, Washington Co. (502) WL.

Sandhill Crane
Reported **12/6** Sherburne (Sherburne NWR) PKL. Fourth winter record.

Killdeer
Late south 12/1 Waseca (two locations) KB, JD, and **12/12** Houston FL. Peak 12/7 Brownsville, Houston Co. (11) KB.

Greater Yellowlegs
Reported **12/5** Fillmore JSt. First winter record.

Spotted Sandpiper
Reported **12/16** Cook (Grand Marais) KMH. First winter record.

Common Snipe
Overwintered in St. Louis JN. Also reported from seven counties south, and most were probably overwintering birds. Unusually large numbers noted from Houston Co. including 12/7 Brownsville (32) KB, 12/12 Brownsville (12) FL, and 2/25 Winnebago Valley (11) PKL.

American Woodcock
Reported **2/28** Faribault TBo (ties earliest date).

Franklin's Gull
Late south **12/1** Waseca KB, JD, and **12/5** Dakota SC, KB. First winter records.

Bonaparte's Gull
Late north 12/2 Beltrami DJo, and **12/17** Mille Lacs Lake, Aitkin Co. CMG (record late date north). Late south **12/19** Afton, Washington Co. BL (record late south date).

MEW GULL
Reported **12/13** Duluth, **St. Louis** PS (adult). Third state record (***The Loon*** 71:154–156).

Ring-billed Gull
Reported from 25 counties throughout the state. Overwintered in Ramsey and Dakota. Late north 12/13 Otter Tail SDM, 12/17 Aitkin CMG, and 12/21 St. Louis PS. Late south 1/3 Scott mob, and 1/5 Hennepin SC. CBC total a record 4,753. Early north **2/15** Otter Tail (2) BBe (record early migrants). Peak south 12/7 Lake Pepin (6,000) KB, peak north 12/16 Mille Lacs Lake (920) KB.

Herring Gull
Reported from a total of 21 counties. Overwintered in Cook, Lake, and St. Louis. Late north (away from Lake Superior) 12/13 Otter Tail SDM, 12/17 Clay RO, and 12/17 Aitkin CMG. Late south 1/1 Hennepin SC, and 1/3 Dakota mob. CBC total 1,088. Peak 12/26 Dakota (1,200) KB. Early south **2/10** Olmsted BBr, **2/15** Winona RJ, 2/20 Ramsey (4) BL, 2/27 Anoka SC.

Thayer's Gull
All North Shore reports: Duluth CBC, **1/4** Lake PS, and 2/21 St. Louis *fide* KE (possibly overwintered at the Superior landfill in Douglas County, Wisconsin). Also reported 12/6 Aitkin WN *et al.* In the south, reported from Rice, Wabasha, Goodhue, Dakota, Ramsey, Hennepin, Sherburne, and Wright, through 12/30 Dakota KB. Peak 12/26 Dakota (**11–12**) KB, record high count.

Iceland Gull
No reports.

Lesser Black-backed Gull
As many as four individuals reported: 12/1–9 Dakota and Hennepin KB *et al.* (adult), 12/19 Goodhue (Red Wing) BL (adult), November through **12/28** Dakota KB, DBS (third-winter), and **12/26–1/4** Ramsey and Dakota KB (first-winter). Previous late date 12/25.

Glaucous Gull
Reported along the North Shore 12/2 Cook KMH, plus scattered reports of 2–3 birds from Duluth, St. Louis Co. Up to three noted in Dakota and Hennepin through 12/30. Also found 12/11 **Wright** (3, Buffalo) KB and 12/11 **Sherburne** (Elk River) KB.

Great Black-backed Gull
Reported 12/24 St. Louis (Duluth) PS (first-winter), presumably the same first-winter individual that overwintered at the adjacent Superior landfill in Wisconsin.

Rock Dove
Reported from 52 counties throughout the state. CBC total 12,394.

EURASIAN COLLARED-DOVE
Overwintered in Lyon (Lynd) RgS. Also reported 12/15 **Freeborn** (Alden) ABa, and 1/29–2/26 **Rock** and **Pipestone** (Jasper) RJ, RG *et al.*

Mourning Dove
Reported from 41 counties throughout the state. CBC total 1,048.

Eastern Screech-Owl
Reported from 12 counties as far north as Todd. CBC total 15.

Great Horned Owl
Reported from 39 counties throughout the state. CBC total 102.

Snowy Owl
Only 20 individuals reported, much lower than average.

Northern Hawk Owl
Only two reports: on the Roseau CBC, and 12/27 St. Louis (Sax-Zim) *fide* KE.

Barred Owl
Reported from 23 counties in range. CBC total 38.

Great Gray Owl
Only 16 individuals reported from expected locations: Roseau (3), Lake of the Woods (2), Aitkin (2), St. Louis (4), and Lake (5).

Long-eared Owl
A remarkable 38 individuals from 16 south counties, second highest total ever. Peaks 12/21 Rice TBo (11) and 2/23 Scott (Blue Lake) KB (7). First county record 12/30 **Renville** (3) AH, PH, TBH.

Short-eared Owl
Ten individuals in eight south counties in December and January (no February reports south), plus one north report: 2/14 & 2/27 Aitkin WN.

Boreal Owl
Reported calling from two locations along Lake Co. Rd. 2 in late February (2/21 *fide* KE and 2/24 *fide* SW/MS). Also reported 1/19–21 St. Louis SW/MS and 2/20 St. Louis (Fond du Lac) AH.

Northern Saw-whet Owl
Eighteen individuals reported from fourteen counties, with a peak of five overwintering in Rice TBo. Only north report 2/21 Lake *fide* KE (calling). Also reported calling 2/26 Winona KK.

Belted Kingfisher
Reported from 18 south and 7 north counties. Overwintered as far north as Otter Tail SDM. CBC total 31.

Red-headed Woodpecker
Reported from 11 counties as far north as Anoka. CBC total 18.

Red-bellied Woodpecker
Reported from 44 counties as far north as Clay, **Hubbard** and St. Louis (Duluth). CBC total 579.

Yellow-bellied Sapsucker
As many as six individuals reported in Hennepin and Ramsey, several of which were seen until late January, and one of which overwintered. Also reported 12/5 Fillmore JSt.

Downy Woodpecker
Reported from 63 counties throughout the state. CBC total 2,530.

Hairy Woodpecker
Reported from 58 counties throughout the state. CBC total 1,043.

Three-toed Woodpecker
Only reports: International Falls CBC, and 2/14 Lake *fide* KE.

Black-backed Woodpecker, 9 January 1999, Two Harbors, Lake County. Photo by Mark Junghans.

Black-backed Woodpecker
Seventeen individuals reported from St. Louis (9), Lake (2), Beltrami (1), Carlton (1), Pine (1), Lake of the Woods (1), plus seen on the Itasca State Park and Beltrami Island CBCs.

Northern Flicker
Reported from 22 counties south, plus Becker and Otter Tail in the north. Overwintered in many south locations. CBC total 77.

Pileated Woodpecker
Reported from 48 counties throughout the state. CBC total 211.

Northern Shrike
Reported from 46 counties in all regions except the southwest. CBC total 103.

Gray Jay
Reported from 12 counties in range. CBC toal 82.

Blue Jay
Reported from 64 counties throughout the state. CBC total 3,481. Peak 2/16 Hubbard (63) JMW.

Black-billed Magpie
Reported from eight counties in range. CBC total 49.

American Crow
Reported from 69 counties throughout the state. CBC total 14,670. Peaks: St. Paul CBC (2,335), and 2/5 Hennepin (2,000 in Minneapolis) KB. CBC total 14,670.

Common Raven
Reported from 17 counties in range as far south as Anoka. CBC total 535.

Horned Lark
Reported from 48 counties throughout most of the state. Exceptional numbers in December CBC total a record 3,144 with a peak of 1,580 at Mountain Lake. Spring (?) peaks 1/6 Fillmore (300) NO, AO, 1/9 Clay (500) RMK, 1/13 Fillmore (400) NO, AO, and 1/18 Lincoln, Pipestone, and Rock (800) RgS.

Black-capped Chickadee
Reported from 64 counties throughout the state. CBC total 13,136.

Boreal Chickadee
Reported from Aitkin, St. Louis, Lake, and Cook counties, plus the Beltrami Island CBC. CBC total 16.

Tufted Titmouse
Reported from Fillmore and Houston counties, and the Rochester and Winona CBCs.

Red-breasted Nuthatch
Reported from 18 north and 20 south counties, but scarce in the south, with a CBC total of only 73 in the south, compared to 480 in the north.

White-breasted Nuthatch
Reported from 64 counties throughout the state. CBC total 2,873.

Brown Creeper
Reported from 43 counties in all regions except the northwest. Appeared to overwinter in many areas. CBC total a record 236, with peaks of 30 at both Fargo and Whitewater.

Carolina Wren
Four reports. Overwintered in Hennepin (Medina) *fide* AH, and Olmsted (Rochester) *fide* AH. Also reported 12/7–12 Houston (Brownsville) KB, FL, and 1/15 Hennepin (Golden Valley) *fide* SC.

Winter Wren
Reported 12/1 Hennepin (Old Cedar Ave. Bridge) SC, and 12/13–1/18 Hennepin (Bass Ponds) SC *et al.*

Marsh Wren
Reported **1/5** Hennepin (Bass Ponds) SC. Only the sixth winter report.

Golden-crowned Kinglet
Reported from 24 counties throughout the state, but the only overwintering noted was in St. Louis and Chisago; all other reports were before 1/2. CBC total a record 78, with a peak of 14 at Duluth.

Eastern Bluebird
Record 20 reports from 13 counties as far north as 12/2 Otter Tail SDM. Possibly overwintered in Houston, Goodhue and Washington (these were only counties with reports between mid-January and mid-February). CBC total 48.

Townsend's Solitaire
Five reports: three December reports from St. Louis (Duluth) *fide* KE, one December report from Lake (Two Harbors) mob, and 12/28 Houston AH, PH.

Hermit Thrush
Reported in Hennepin JD, and the St. Paul NE CBC (2).

American Robin
Reported from 49 counties throughout the state. CBC total a record 5,067, with a peak of 1,233 at Whitewater. Additional peak 1/19 Dakota DBS (400+).

Varied Thrush, 19 December 1998, Fridley, Anoka County. Photo by Marcus Martin.

Varied Thrush
Fourteen individuals reported from twelve counties. All reports: 11/17–2/22 Cook (Hovland) SOL, 12/16 Anoka (St. Francis) *fide* AH, 12/17 Becker (Detroit Lakes) BBe, 12/19 Anoka (Fridley) mob (Minneapolis CBC), 12/19 Dakota (Lakeville) *fide* AH, 12/20 Crow Wing (Crosby) *fide* AH, 12/20–1/18 Lake (Two Harbors) mob, 12/22–2/24 Hennepin (Maple Grove) *fide* OJ, mob, 12/25–1/11 Pine (Pine City) *fide* AH, 12/29–mid February Crow Wing (Brainerd) PP, 1/2–1/11 (arrived earlier) Ramsey (St. Paul) *fide* AH, TT, and the Crookston, Duluth, and Grand Rapids (count week) CBCs.

Gray Catbird
Overwintered (November–2/21) in Hennepin (Bass Ponds) SC, mob. Only two or three previous overwintering records. Also reported 12/13–15 Mower RRK.

Northern Mockingbird
Reported 12/20 Lake JLi, and 1/5 Beltrami DJo.

Brown Thrasher
Reported 12/12 Anoka MM, 12/1–1/1 McLeod RbS, through 1/6 St. Louis (Duluth) *fide* KE (found dead), 1/20 & 2/14 Todd JSK, and the Faribault and Winona CBCs.

European Starling
Reported from 62 counties throughout the state. CBC total 17,647.

Bohemian Waxwing
Reported from 17 counties north, plus Anoka, Sherburne, and Olmsted in the south. Very large numbers noted throughout the north, with peaks 12/14 Croftville, Cook Co. (3,500) BF, and unusually far west 1/5 Thief River Falls, Pennington Co. (1,000) SKS. CBC total 3,646, with the highest count at Duluth (1,498).

Cedar Waxwing
Reported from 34 counties throughout the state. CBC total 1,974.

Orange-crowned Warbler
Reported **12/18** St. Louis (Duluth) KE. Third winter record and second latest date.

Yellow-rumped Warbler
Four reports: 12/17 Anoka/Ramsey line AH, 1/17 Wabasha TBr, and the Bloomington (2) and Cottonwood CBCs.

Eastern Towhee
Overwintered in Todd JSK, SDu.

American Tree Sparrow
Reported from 40 counties as far north as St. Louis and Clay. CBC total 5,189 with a peak at Bloomington (608).

Chipping Sparrow
Three December reports, but only one documented: 12/19 Otter Tail SDM (Fergus Falls CBC).

Fox Sparrow
Reported on the Fergus Falls, International Falls, Rochester, and Sherburne NWR CBCs, plus 12/12 Ramsey (2) RH and 1/31 Crow Wing WN.

Song Sparrow
Overwintered in Hennepin SC, TT *et al.*, but numbers lower than normal. Probably overwintered 1/30–2/14 Dakota SWe, TT. Also reported 12/5 Fillmore JSt, 12/6 Ramsey, and on the Long Prairie, Owatonna, Winona, and LaCrosse CBCs.

Swamp Sparrow
Overwintered in downtown Minneapolis, Hennepin Co. TT. Also reported 12/1 Hennepin (Old Cedar Ave. Bridge) SC and 1/24–2/2 Hennepin (Mound Springs) SC.

White-throated Sparrow
Reported from 17 counties in all regions except the northwest. Overwintering was noted from Hennepin and Ramsey south, although also reported 2/21 St. Louis (Duluth) JN. CBC total 66.

Harris's Sparrow
Overwintered in Otter Tail SDM, and Todd JSK, SDu. Reported on the Duluth CBC.

White-crowned Sparrow
Reported on the Bloomington CBC (2), and 2/26 Dakota KO.

Dark-eyed Junco
Reported from 56 counties throughout the state. CBC total a record 9,165.

Lapland Longspur
Reported from 29 counties in all regions except the north central and northeast. CBC total record 2,203 with a peak of 1,150 at Owatonna. Unusual early January peaks 1/9 Clay (400) RMK and 1/6 Dakota (1,100) AH.

Snow Bunting
Reported from 51 counties throughout the state. CBC total 6,699.

Northern Cardinal
Reported from 42 counties as far north as St. Louis and Becker. CBC total 2,470.

Red-winged Blackbird
Reported from 17 counties as far north as Otter Tail and St. Louis (Duluth). CBC total 448.

Meadowlark, sp.
Reported in late January Dakota *fide* AH, and 1/23 Olmsted JSt.

Yellow-headed Blackbird
Reported **12/19** on the Fergus Falls CBC.

Rusty Blackbird
Reported from the Faribault, Winona, and Lamberton CBCs, plus 1/16 Freeborn (20) ABa, 1/23 & 2/17 Lac Qui Parle FE, 2/15 Yellow Medicine BBe, 2/28 Swift (6–8) SDM, and 2/28 Freeborn ABa.

Brewer's Blackbird
Overwintered in Becker BBe and Crow Wing *fide* WN. Also reported on Excelsior CBC (2), early January Dakota *fide* AH, and 2/21 Dodge JSt. None of these reports had convincing details.

Common Grackle
Reported from 22 counties throughout the state. CBC total 85.

Brown-headed Cowbird
Reported 1/9 Freeborn (Hayward) ABa, 2/14 Goodhue SWe, and on several CBCs, but none of these reports had details.

Baltimore Oriole
Reported **12/20** Douglas *fide* PBu.

Pine Grosbeak
Reported from only eleven north counties. Numbers very low except in far northeast (Cook and northern St. Louis). CBC total 317, the lowest total in over 15 years.

Purple Finch
Reported from 43 counties throughout the state. CBC total 764.

House Finch
Reported from 47 counties throughout the state. CBC total 3,040.

Red Crossbill
Reported from ten north counties, plus Anoka mob and 12/31 Rice TBo in the south. Largest flock reported 1/28 St. Louis (19) JN. CBC total 139.

White-winged Crossbill
Reported from 12 north counties plus the following south reports: Cedar Creek CBC (22), Anoka JH (no date), and 12/30 Yellow Medicine (15) and Redwood (9) AH, PH. CBC total 201. Peak 2/3 Becker (40) BBe.

Common Redpoll
Reported from only nine north counties and six south counties (this is the lowest total since 1983). Exceptionally low numbers, with largest flocks reported only 20–30 individuals. Many counties represented by only a single observation. CBC total 146, the lowest total in over 15 years.

Hoary Redpoll
Two reports: 1/7 Ramsey AH and 1/25 Lake KE.

Pine Siskin
Reported from 24 north and 13 south counties. CBC total 1,001.

American Goldfinch
Reported from 43 counties throughout the state. CBC total 4,186 (probably a record), with large numbers found in many of the northern regions, including four CBCs in northeast and north central that each had over 100 individuals.

Evening Grosbeak
Reported from 15 north counties, plus Stearns MJ/DT in the south. Largest numbers reported were 60–90 individuals. CBC total 682, the lowest total in over 15 years.

House Sparrow
Reported from 59 counties throughout the state. CBC total 23,767.

Observers

MA	Mark Alt
BA	Betty Ammerman
BBa	Bruce Baer
KB	Karl Bardon
ABa	Al Batt
TEB	Tom & Elizabeth Bell
BBe	Betsy A. Beneke
PBi	Paul J. Binek
JBl	Jo Blanich
TBo	Tom F. Boevers
BBo	Brad Bolduan
ABo	Al Bolduc
TBr	Terry P. Brashear
WB	William L. Brown
BBr	Bill Bruins
DBr	Diane Brudelie
JJB	Jerry & Jared Bucksa
PBu	Paul Budde
CB	Cindy Butler
SC	Steve Carlson
JDa	Jeff Dains
ED	Ed Duerksen
SDu	Sue Durrant
KE	Kim R. Eckert
DE	Dudley Edmondson
DEv	David Evans
ME	Molly Evans
AE	Audrey L. Evers
BF	Bruce A. Fall
THF	Tom & Helen Ferry
LF	Lawrence W. Filter
HJF	Herbert & Jeanette Fisher
EMF	Eugene L. & Marilynn H. Ford
MF	Merrill J. Frydendall
CMG	Clare & Maurita Geerts
CH	Clifford Hansen
AH	Anthony Hertzel
PH	Paul Hertzel
TBH	T. Benjamin Hertzel
KMH	Ken & Molly Hoffman
RH	Robert E. Holtz
JH	James L. Howitz
NJ	Nancy A. Jackson
RJ	Robert B. Janssen
PJ	Paul Jantscher
DJo	Douglas P. Johnson
GRJ	Gretchen & Roger Johnson
MJ/DT	Murdoch Johnson & Dianne Tuff
OJ	Oscar L. Johnson
JJ	Jeanie Joppru
BK	Byron R. Kinkade
KK	Karla Kinstler
RRK	Ron & Rose Kneeskern
JSK	John & Susan Kroll
CK	Chuck A. Krulas
PKL	Pat & Ken Lafond
JLa	Jacob Langeslag
FL	Fred Lesher
SL	Sue Levy
ML	Madeleine Linck
JLi	Jim Lind
BL	Bill Litkey
JL	Jon Little
WL	William H. Longley
OSL	Orvis & Sandy Lunke
CMa	Craig R. Mandel
WM	William Marengo
MM	Marcus G. Martin
CM	Craig Menze
SDM	Steve & Diane Millard
SCM	Steve & Carol Mortensen
DN	David F. Neitzel
WN	Warren Nelson
JN	Jeff R. Newman
CN	Connie M. Norheim
MRN	Michael R. North
RO	Robert O'Connor
KO	Ken Oulman
AO	Art Overcott
NO	Nancy Overcott
JP	Johanna Pals
PP	Pam Perry
KRv	Kathryn A. Rivers
SS	Steven Schon
RbS	Robert Schroeder
RgS	Roger Schroeder
BSe	Blaine Seeliger
DBS	Drew & Becky Smith
WSt	William Stauffer
JSt	Jeff Stephenson
SKS	Shelley & Keith Steva
FKS	Forest & Kirsten Strnad
PS	Peder Svingen
DST	Dan & Sandy Thimgan
TT	Tom Tustison
DV	Dan Versaw
JMW	John & Marlene Weber
SWe	Steve Weston
KKW	Kristine & Kyle Wicklund
TW	Terry P. Wiens
SW/MS	Steve Wilson & Mary Shedd
WW	Warren Woessner
DZ	Dave C. Zumeta
mob	many observers

1998–1999 MINNESOTA CHRISTMAS BIRD COUNTS

CBC	Compiler	Date	Species	Individuals
Afton	Helen Lien	1 January 1999	51	5,775
Albert Lea	Al Batt	19 December 1998	48	5,242
Aurora	Chuck Neil	2 January 1999	25	1,151
Austin	Terry Dorsey	20 December 1998	37	5,567
Battle Lake	Steve Millard	3 January 1999	37	3,860
Baudette	Martin Kehoe	27 December 1998	26	1,658
Beltrami Island	Martin Kehoe	28 December 1998	13	142
Bemidji	Katherine V. Haws	19 December 1998	31	1,121
Bloomington	Mark Ochs	19 December 1998	65	25,270
Cloquet-Carlton	Larry A. Weber	20 December 1998	25	1,042
Cedar Creek Bog	Helen Lien	20 December 1998	37	1,118
Cottonwood	Paul Egeland	20 December 1998	35	26,303
Crookston	Tom Feiro	19 December 1998	26	1,886
Crosby	Jo Blanich	19 December 1998	34	2,196
Detroit Lakes	Bruce K. Besse	19 December 1998	34	2,265
Duluth	Kim Eckert	19 December 1998	61	10,264
Excelsior	Dennis Martin	19 December 1998	61	18,731
Fairmont	Brad Bolduan	19 December 1998	31	4,713
Faribault	John Little	19 December 1998	51	12,454
Fargo/Moorhead	Ron Wellermoe	19 December 1999	35**	8,889
Fergus Falls	Steve Millard	19 December 1998	47	9,591
Grand Forks/EGF	David O. Lambeth	20 December 1998	13*	1,149
Grand Rapids	Janet Boe	19 December 1998	30	1,610
Hastings/Etter	Roger Field	26 December 1998	49	6,130
Hibbing	Janet A. Peterson	19 December 1998	21	779
International Falls	Jim Schaberl	19 December 1998	31	1,233
Isabella	Steve Wilson	2 January 1999	20	755
Itasca State Park	Doug Johnson	26 December 1998	24	467
Lac Qui Parle	Paul Egeland	26 December 1998	32	20,677
LaCrosse/LaCrescent	Fred Lesher	19 December 1998	55**	18,184
Lamberton	Lee K. French	18 December 1998	30	910
Little Falls	Murdoch Johnson	28 December 1998	24	843
Long Prairie	John & Susan Kroll	1 January 1999	36	1,472
Mankato	Merrill Frydendall	19 December 1998	35	4,035
Marshall	Roger Schroeder	19 December 1998	33	3,296
Minneapolis	Terence P. Brashear	19 December 1998	52	10,547
Morris	Donna M. Oglesby	19 December 1998	33	5,551
Mountain L./Windom	Edna Gerber	1 January 1999	28	3,583
NW McLeod Co.	Robert Schroeder	19 December 1998	35	6,224
Owatonna	Darryl Hill	19 December 1998	46	8,429
Pine Co.-Kerrick	Mark Alt	19 December 1998	21	299
Rochester	David P. Squillace	19 December 1998	55	38,982
Roseau	Betty M. Johnson	26 December 1998	18	358
Sherburne NWR	James Pasch	19 December 1998	33	2,440
St. Cloud	Brian Jungels	19 December 1998	21	1,663
St. Paul	Fred Waltz	19 December 1998	56	29,763
St. Paul NE	Richard Wachtler	26 December 1998	53	6,967
Sax Zim	Mark Stensaas	21 December 1998	28	480
Tamarac NWR	Lowell Deede	22 December 1998	31	1,182
Wabasha	Jon Peterson	2 January 1999	41	2,346
Warren	Gladwin Lynne	1 January 1999	24	1,064
Whitewater WMA	Allison A. Campbell	1 January 1999	46	4,447
Wild River	Tom Anderson	18 December 1998	40	4,585
Winona	Walter Carroll	19 December 1998	71*	15,216

*Includes only species and individuals recorded in MN.
**Includes only species recorded in MN (but number of individuals of those species is from both states).

Forest Management Practices and Use by Breeding Birds in Selected Pine Stands in Northeast Minnesota

John C. Dorio

In 1988, 1989, and 1990, I conducted breeding bird censuses in northeastern Minnesota on the Superior National Forest in Lake County. This study investigated avian presence in a clearcut stand, two treated (thinned) stands managed for pine, and two untreated mixed hardwood/coniferous stands. The general hypothesis tested was that differences in the structure and floristic composition of vegetation between treated and untreated stands influence the presence and densities of avian populations by altering the quantity and quality of habitat suitable for foraging and nesting.

The purpose of the study was threefold: (1) identify the vegetative composition of treated and untreated stands; (2) compare bird populations in treated and untreated stands; (3) evaluate whether the differences in vegetation between the treated and untreated stands can be associated with major differences in the presence or absence of bird species.

Study Area

Five stands were selected for study on two areas in the Tofte Ranger District, Superior National Forest in Lake County — four stands at Inga Lake and one stand at Indian Lake. The stands selected for this study were in areas consisting of a mosaic of forest size-classes resulting from past timber management practices. I selected stands that were dominated by pine except for the clearcut, which was regenerating to aspen. The study stands ranged in area from 5.6 ha to 18.0 ha. At the Indian Lake area, one 18.0 ha stand was thinned in 1987 and was managed for white pine, and an 8.4 ha stand in the Inga Lake area was thinned in 1986 and was managed for red pine. A 10.4 ha aspen stand at Inga Lake was clearcut in 1986 and was regenerating to aspen through suckering.

One of the two untreated (no timber management) mixed hardwood/coniferous stands was dominated by white pine and the other by red pine. Paper birch and balsam fir were scattered throughout all the stands except for the clearcut. Common shrubs were beaked hazel and mountain maple. The herb prevalent in all stands was large-leaved aster.

Methods

Breeding Bird Surveys: Birds in the study stands located in the Inga Lake area were sampled four times during each breeding season for two years (1988 and 1989) and three times for one year in 1990. These surveys were conducted from 4 June to 10 July 1988, from 10 June to 3 July in 1989, and in 1990 from 14 June to 24 June. Birds in the study stand in the Indian Lake area were sampled four times during the breeding season in 1989 and three times in 1990. These surveys were conducted from 11 June to 4 July 1989 and from 10 June to 22 June in 1990.

Bird populations were sampled on calm mornings (one-half hour before sunrise to 8:30 A.M.) at systematically located stations throughout each stand. All bird sampling stations were at least 100 m apart and a minimum of 50 m from a

stand edge. A minimum of two stations were sampled in each stand; a maximum of five stations were sampled in the largest stand. Sampling stations were evenly distributed throughout each stand so that samples were independent and all portions of each stand were sampled. This allowed for a uniform proportion of each stand to be sampled in stands < 12 ha; in stands > 12 ha the sampling intensity varied.

All birds heard or seen at a sampling station during a ten-minute period were recorded. Fly-overs or birds otherwise outside the stands were not recorded. Care was taken to prevent double counting individuals at the same or adjacent stations. The number of bird species observed in each stand was determined from all visits.

Vegetation Surveys: The vegetation was sampled in one 0.04 ha circle centered on each of the bird-sampling stations in each stand and within similar circles located 2.5 chains (50.3 m) from the bird-sampling station in each of the cardinal directions. A minimum of five of these 0.04 ha vegetation plots were surveyed in each stand. No plots were located at the edge of a stand. Vegetation measurements followed guidelines found in James and Shugart (1970) and Noon (1981).

Results

Vegetative differences between thinned and untreated stands primarily were related to the differences in tree densities and subsequent canopy cover, mid-story, and ground story represented in each. A comparison of the vegetative characteristics of the study stands is found in Tables 1, 2, and 3.

I recorded 42 bird species in the study stands (Table 4). The thinned stand managed for white pine had the greatest avian species diversity with 30 species. The untreated stands had the second highest bird species diversity and the clearcut the least with 15. Of the 42 species recorded in this study, four species were found only in the untreated stands — the Pileated Woodpecker, Gray Jay, Black-capped Chickadee, and Brown Creeper.

Neotropical migrant species were most numerous (18) in the thinned stand managed for white pine compared to the clearcut (6). The two most numerous neotropical species in the thinned stand managed for white pine were the Least Flycatcher and the Chestnut-sided Warbler. In the clearcut the Chestnut-sided Warbler and the Mourning Warbler were most numerous.

Ten short-distance migrant species (Table 4) were recorded in the thinned stand managed for white pine, which were nearly twice as many compared to the other stands surveyed.

Resident species were most numerous (Table 4) in the untreated mixed hardwood/coniferous stands with seven and five species, respectively. Cavity-nesters were more numerous in the untreated stands as well as in the clearcut.

The most common species in the thinned stands were the Least Flycatcher and the Pine Warbler. The presence of Olive-sided Flycatcher, American Robin, and Nashville Warbler was notably greater in the thinned stand managed for white pine.

The most common species in the untreated stands were the Black-throated Green Warbler, Blackburnian Warbler, Yellow-bellied Sapsucker, and the Red-breasted Nuthatch.

Of the shrub-nesting species encountered during the survey, the Chestnut-sided Warbler was most numerous (Table 5). As might be expected, this species was recorded only in the thinned stands and in the clearcut, stands with the highest density of shrubs/saplings. A second shrub-nester, the American Redstart, was found only in the thinned stands. The Common Yellowthroat — the third shrub-nesting species — was found only in the clearcut and only in the first year of the survey.

Canopy-nesters were well represented in all of the stands (Table 5), except in the clearcut. The most canopy-species

Vegetative Characteristics	Inga Lake				Indian Lake
	Thinned Red Pine	Untreated mixed h/c Red Pine	Untreated mixed h/c White Pine	Clearcut	Thinned White Pine
Number tree species	5.0	7.0	8.0	~	5.0
Number conifer tree species	3.0	5.0	5.0	~	3.0
Number deciduous tree species	2.0	2.0	3.0	~	2.0
Trees/ha	266.8	672.1	803.0	~	259.4
Conifer trees/ha	222.3	425.0	551.0	~	249.5
Deciduous trees/ha	44.5	247.1	252.0	~	9.8
Tree basal area (m_/ha)	6.8	16.2	36.1	~	50.4
Basal area conifer (m_/ha)	6.2	11.6	28.2	~	50.0
Basal area deciduous trees (m_/ha)	0.6	4.6	7.9	~	0.4
Snags/ha	34.6	128.5	71.6	66.7	39.5
Canopy cover (%)	30.0	78.0	78.0	~	42.0
Average canopy height (m)	13.4	17.6	20.7	~	17.0
Saplings/ha (X 1000)	8.8	0.2	0.4	13.6	0.2
Shrub stems/ha (X 1000)	6.0	5.1	7.2	2.0	16.3
Ground cover (%)	87.0	63.0	35.0	80.0	70.0

Table 1. Comparison of vegetative characteristics of one clearcut, two thinned stands managed for pine (one stand dominated by red pine and the second by white pine), and two untreated mixed hardwood/coniferous (h/c) stands (one stand dominated by red pine and the second by white pine).

were found in the thinned stand managed for white pine, with 17 species recorded.

The number of ground-nesting species was roughly equal for all of the stands surveyed. The Veery was recorded in all of the stands, with the highest number of this species encountered in the thinned stand managed for white pine and the two untreated stands. Hermit Thrushes were highly evident only in the thinned stand managed for white pine and the untreated mixed hardwood/coniferous stand dominated by white pine. Nashville Warblers and Ovenbirds were two ground-nesting species found almost exclusively in the thinned stand managed for white pine and the two untreated stands, and Mourning Warblers were common in the clearcut and in the thinned stand managed for red pine. The White-throated Sparrow showed up in equally high numbers in the clearcut and the thinned stand managed for white pine. The Winter Wren was present only in the untreated stands with the highest encounters recorded in the untreated mixed hardwood/coniferous stand dominated by white pine.

A clear correlation was found in the numbers of cavity-nesting species recorded and the density of snags. Open-area cavity-nesters such as the Tree Swallow and American Kestrel were only present in the clearcut. Snags were specifically marked for retention in the clearcut prior to the removal of all trees as called for in the silvicultural prescription. The untreated mixed hardwood/coniferous stand dominated by red pine had the highest density of snags with 130/ha and correspondingly had the highest number of cavity-nesting species. The Red-breasted Nuthatch, a secondary cavity-nester, was present in higher numbers in the untreated stands.

Discussion

Prior to logging, no data were collected in the treated stands that would indicate changes in the bird communities brought on by the subsequent changes in the vegetational structure. However, one would expect breeding bird communities would vary with changes in the relative proportions of pines and hardwoods and the type of understory development brought on by natural succession as well

	Inga Lake				Indian Lake
	Thinned Red Pine	Untreated mixed h/c Red Pine	Untreated mixed h/c White Pine	Clearcut	Thinned White Pine
Trees					
Pinus strobus	14	44	96	~	212
Pinus resinosa	188	227	2	~	~
Pinus banksiana	~	94	~	~	~
Picea glauca	20	20	59	~	20
Abies balsamea	~	39	331	~	17
Thuja occidentalis	~	~	~	~	62
Betula papyrifera	39	153	116	~	7
Acer rubrum	5	~	71	~	~
Populus tremuloides	~	94	64	~	2
Snags	34	128	71	52	39
Saplings					
Populus tremuloides	8800	~	~	13575	87
Betula papyrifera	~	95	12	100	80
Abies balsamea	~	10	345	~	50
Picea glauca	5	35	~	~	37
Pinus banksiana	~	~	~	~	2
Acer rubrum	~	45	42	~	~
Pinus strobus	~	10	~	~	~
Shrubs					
Corylus cornuta	3800	2575	3465	1325	14135
Acer spicatum	1500	1900	3677	25	1477
Alnus crispa	750	400	~	550	22
Salix sp.	~	~	~	75	102
Rubus sp.	~	~	~	50	135
Viburnum Raf.	~	~	~	~	90
Dirca palustris	~	~	~	~	80
Sambucus americana	~	~	~	~	22
Alnus rugosa	~	~	~	~	32
Rosa sp.	~	~	~	~	10
Amelanchier sp.	~	50	35	25	182
Cornus stolonifera	~	250	70	~	45
Prunus pensylvanica	~	~	~	25	22
Prunus virginicum	~	~	~	~	10

Table 2. Number of trees, snags, sapling and shrub densities per ha in one clearcut, two thinned stands managed for pine (one stand dominated by red pine and second by white pine), and two treated mixed hardwood/coniferous (h/c) stands (one stand dominated by red pine and the second by white pine).

as the type of development brought on by logging.

The clearcut, which was regenerating to aspen through root suckering, contained avian species indicative of open areas, and shrub-loving species such as Chestnut-sided Warbler, Mourning Warbler, and White-throated Sparrow. Other species indicative of open areas, but with differing requirements, were found in the clearcut. For example, cavity-nesters were found in the clearcut because there had been a conscious effort to retain snags. Open area cavity-nesters found nesting in the clearcut included American Kestrel and Tree Swallow. Also present were

	7.5-15.0 (cm)	15.0-22.5 (cm)	22.5- 37.5 (cm)	37.5- 52.5 (cm)	52.5- 67.5 (cm)	67.5-82.5 (cm)
Untreated mixed hardwood/coniferous white pine						
hardwood	83.0*	76.1	86.4	10.4	–	–
softwood	245.6	131.4	55.3	69.2	34.6	17.2
snag	17.3	27.6	13.8	10.3	3.4	–
Thinned white pine						
hardwood	3.7	6.1	–	–	–	–
softwood	18.5	27.2	122.3	76.6	7.4	–
snag	3.7	24.7	9.8	1.2	–	–
Untreated mixed hardwood/coniferous red pine						
hardwood	88.9	84.0	69.2	4.9	–	–
softwood	69.1	113.6	227.3	14.8	–	–
snag	34.6	34.6	59.3	–	–	–
Thinned red pine						
hardwood	19.6	14.8	9.8	–	–	–
softwood	64.2	49.4	84.0	24.7	–	–
snag	4.9	9.8	19.7	–	–	–
Clearcut						
snag	4.9	24.7	37.0	–	–	–

* tree density (stems/ha)

Table 3. Average tree densities by size class in one clearcut, two thinned stands managed for pine (one stand dominated by red pine and the second by white pine), and two untreated mixed hardwood/coniferous (h/c) stands (one stand dominated by red pine and second by white pine).

other cavity-nesters not limited to open areas, including Northern Flicker, Downy Woodpecker, and Hairy Woodpecker.

One thinned stand was dominated by red pine, the other by white pine. After thinning, the overstory was open sufficiently to allow shrub and sapling development. This change in the vegetational structure allowed shrub-nesting birds usually found in open areas to be present such as Chestnut-sided Warbler, Mourning Warbler, and White-throated Sparrow. Also, retaining the canopy — although less than before logging — provided habitat for species that require mature trees or a well-developed canopy, (e.g. Least Flycatcher and Pine Warbler).

Since the hardwood components were favored for removal in the thinned stands, the prevalence of a hardwood component differed between thinned and untreated stands. These differences resulted in a bird community dominated by species that prefer hardwoods (such as Red-eyed Vireo and Scarlet Tanager) or by species which prefer conifers (such as Red-breasted Nuthatch, Blackburnian Warbler, and Nashville Warbler).

A number of more generalized species would be expected to be fairly common, regardless of the relative proportions of conifers and hardwoods, so long as other general vegetation structural requirements were met. This expectation held through for the Eastern Wood-Pewee, Rose-breasted Grosbeak, American Robin, Blue Jay, Veery, Black-and-white Warbler, and Ovenbird.

Bird species diversity in forested stands should be greatest in those stands in which the greatest number of vegetative habitat needs are met. For example, stands with high horizontal and vertical diversity of vegetation typical of old-growth stands will likely support bird species that prefer large trees (such as Pileated Woodpecker, Blackburnian Warbler, and Pine Warbler) and those that

	Inga Lake				Indian Lake
	Thinned Red Pine	Untreated mixed h/c Red Pine	Untreated mixed h/c White Pine	Clearcut	Thinned White Pine
Neotropical Migrants					
Ruby-throated Hummingbird	~	~	~	~	0.06
Olive-sided Flycatcher	~	0.09	0.09	~	0.40
Eastern Wood Pewee	0.36	0.54	0.18	~	0.31
Least Flycatcher	0.81	0.04	~	~	1.54
Tree Swallow	~	~	~	0.18	~
Veery	0.09	0.45	0.54	0.04	0.68
Hermit Thrush	~	0.04	0.18	~	0.22
Red-eyed Vireo	0.09	0.86	0.40	~	0.48
Nashville Warbler	~	0.27	0.22	0.09	0.57
Northern Parula	~	~	0.40	~	0.06
Chestnut-sided Warbler	1.63	~	0.36	1.50	1.54
Black-throated Green Warbler	0.04	1.13	0.45	~	0.06
Blackburnian Warbler	~	0.95	0.63	~	0.28
Black-and-White Warbler	0.13	0.09	0.18	~	0.25
American Redstart	0.09	~	~	~	0.14
Ovenbird	0.04	2.31	1.27	~	0.91
Mourning Warbler	0.90	0.13	~	1.59	0.34
Common Yellowthroat	~	~	~	0.04	~
Canada Warbler	~	~	~	~	0.02
Scarlet Tanager	0.13	0.13	0.22	~	~
Rose-breasted Grosbeak	0.04	0.13	0.09	~	0.31
Short-Distance Migrants					
American Kestrel	~	~	~	0.22	~
Yellow-bellied Sapsucker	~	0.18	0.40	~	0.11
Northern Flicker	~	~	0.04	0.13	0.14
Winter Wren	~	0.04	0.45	~	~
American Robin	0.18	0.09	0.04	0.31	1.06
Cedar Waxwing	0.04	~	~	~	0.08
Pine Warbler	0.40	0.04	0.13	~	0.48
Evening Grosbeak	0.04	~	~	~	0.06
Chipping Sparrow	~	~	~	0.09	0.08
Song Sparrow	~	~	~	0.04	~
White-throated Sparrow	0.59	~	0.18	1.22	1.31
Brown-headed Cowbird	~	0.13	~	~	0.06
Purple Finch	~	~	~	~	0.02
Residents					
Pileated Woodpecker	~	0.04	0.09	~	~
Downy Woodpecker	~	0.13	0.04	0.09	~
Hairy Woodpecker	~	0.04	~	0.04	~
Gray Jay	~	~	0.04	~	~
Blue Jay	0.04	0.13	0.27	0.09	0.25
Black-capped Chickadee	~	0.04	~	~	~
Red-breasted Nuthatch	0.09	0.36	0.40	~	0.08
Brown Creeper	~	0.04	~	~	~
No. neotropical species	12.00	14.00	14.00	6.00	18.00
No. short-distance species	5.00	5.00	6.00	6.00	10.00
No. resident species	3.00	7.00	5.00	3.00	2.00
No. cavity nesters	2.00	7.00	5.00	5.00	3.00
Total number of species	20.00	26.00	25.00	15.00	30.00

Table 4. Average number of birds found per visit to each plot during the census period in one clearcut, two thinned stands managed for pine (one dominated by red pine and the second by white pine), and two untreated mixed hardwood/coniferous (h/c) stands (one stand dominated by red pine and the other by white pine).

	Inga Lake				Indian Lake
	Inga Lake Thinned Red Pine	Untreated mixed h/c Red Pine	Untreated mixed h/c White Pine	Clearcut	Indian Lake Thinned White Pine
Canopy Nesters					
Ruby-throated Hummingbird	~	~	~	~	0.06
Olive-sided Flycatcher	~	0.09	0.09	~	0.40
Eastern Wood Pewee	0.36	0.54	0.18	~	0.31
Least Flycatcher	0.81	0.04	~	~	1.54
Red-eyed Vireo	0.09	0.86	0.40	~	0.48
Northern Parula	~	~	0.40	~	0.06
Black-throated Green Warbler	0.04	1.13	0.45	~	0.06
Blackburnian Warbler	~	0.95	0.63	~	0.28
Scarlet Tanager	0.13	0.13	0.22	~	~
Rose-breasted Grosbeak	0.04	0.13	0.09	~	0.31
American Robin	0.18	0.09	0.04	0.31	1.06
Cedar Waxwing	0.04	~	~	~	0.08
Pine Warbler	0.40	0.04	0.13	~	0.48
Evening Grosbeak	0.04	~	~	~	0.06
Chipping Sparrow	~	~	~	0.09	0.08
Brown-headed Cowbird	~	0.13	~	~	0.06
Purple Finch	~	~	~	~	0.02
Gray Jay	~	~	0.04	~	~
Blue Jay	0.04	0.13	0.27	0.09	0.25
Shrub Nesters					
Chestnut-sided Warbler	1.63	~	0.36	1.50	1.54
American Redstart	0.09	~	~	~	0.14
Common Yellowthroat	~	~	~	0.04	~
Ground nesters					
Veery	0.09	0.45	0.54	0.04	0.68
Hermit Thrush	~	0.04	0.18	~	0.22
Nashville Warbler	~	0.27	0.22	0.09	0.57
Black-and-White Warbler	0.13	0.09	0.18	~	0.25
Ovenbird	0.04	2.31	1.27	~	0.91
Mourning Warbler	0.90	0.13	~	1.59	0.34
Canada Warbler	~	~	~	~	0.02
Winter Wren	~	0.04	0.45	~	~
Song Sparrow	~	~	~	0.04	~
White-throated Sparrow	0.59	~	0.18	1.22	1.31
Cavity Nesters					
Tree Swallow	~	~	~	0.18	~
American Kestrel	~	~	~	0.22	~
Yellow-bellied Sapsucker	~	0.18	0.40	~	0.11
Northern Flicker	~	~	0.04	0.13	0.14
Pileated Woodpecker	0.04	0.04	0.09	~	~
Downy Woodpecker	~	0.13	0.04	0.09	~
Hairy Woodpecker	~	0.04	~	0.04	~
Black-capped Chickadee	~	0.04	~	~	~
Red-breasted Nuthatch	0.09	0.36	0.40	~	0.08
Brown Creeper	~	0.04	~	~	~

Table 5. Average number of birds encountered per visit to each plot during the census period in one clearcut, two thinned stands managed for pine (one stand dominated by red pine and the second by white pine), and two untreated mixed hardwood/coniferous (h/c) stands (one stand dominated by red pine and the second by white pine)

prefer a well developed, shaded, hardwood understory (such as Veery, Hermit Thrush, and Winter Wren). Gaps resulting from wind damage, disease, or fire in old growth stands provide habitat for earlier successional bird species; these habitats needs can be met to some degree by logging. If care is taken in creating gaps through logging by clearcutting and thinning stands, then a diversity of avian species can be maintained. Size of the gaps created through logging should approximate gaps created by windthrow, fire, or other catastrophic events. This would likely reduce the harmful effects of forest fragmentation documented in other studies.

Correlation between the presence/absence of certain bird species and the vegetative structure found in the treated and untreated stands was not clearly evident. Canopy-nesters generally did not appear to be adversely affected by thinning in this study. In fact, the Pine Warbler was more numerous in the thinned stands than in the untreated stands. Other canopy-nesting species such as the Olive-sided Flycatcher, Least Flycatcher, and American Robin were present in higher numbers in the thinned stand managed for white pine than in any of the other timbered stands. The Black-throated Green Warbler and Blackburnian Warbler were found in higher numbers in the untreated stands. Canopy cover and canopy height did not seem related to the presence or absence of canopy-nesters. None of the other vegetative parameters measured in the study was related to canopy-nesters either. Shrub-nesters, such as the Chestnut-sided Warbler, were present in high numbers in the thinned stands and in the clearcut stands with the highest densities of shrubs and saplings. The American Redstart, on the other hand, was found only in the thinned stands. Here it appears that the combination of shrub/sapling density and canopy cover were both important to this species. The apparent lack of relationship between was the most important factor affecting this warbler's occurrence.

Management Implications

It appears that thinned stands managed for pine production are compatible with most breeding birds. These treated stands provided habitat structure for canopy and shrub nesting birds typically found in more open dense shrublands. Stands thinned for pine production also support cavity-nesters if snags are left in sufficient numbers and in larger sizes. Similarly, I have found if snags are left in a clearcut in sufficient number and in larger sizes, cavity-nesters will thrive, especially those that require open areas. The two untreated mixed hardwood/coniferous stands retained neotropical species that were not found in the thinned stands. Even small untreated stands can provide habitat for bird species that appear to favor mature pine trees and dense understory.

The use of even and uneven-aged forest management practices along with a practice of reserving some stands from harvest should provide habitat for most forest songbirds.

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Third Record of the Mew Gull in Minnesota

Peder H. Svingen

The Mew Gull has been included for more than 16 years on the Minnesota checklist as "a species for which there is no specimen, photograph, or video or audio tape recording obtained in the state." The first two records in 1982 and 1996 were documented by written descriptions, but verifiable evidence of this species' occurrence in Minnesota was not obtained until 13 December 1998, when an adult was photographed at Canal Park in Duluth.

During the early afternoon on 13 December 1998 in Duluth, St. Louis County, while trying to relocate an unidentified gull seen at Canal Park the previous day, I discovered an adult Mew Gull (*Larus canus*) loosely associating with about 30 Ring-billed Gulls (*L. delawarensis*). I immediately recognized it as a Mew Gull and knew that it was an A_S species on the Minnesota checklist (MORC 1999), so the first priority was to get my camera from the car and take its photograph. Much to my dismay, it took off with a group of Ring-billeds after only five more minutes, flew at high altitude over downtown Duluth and disappeared over the hill.

I called both hotlines and left messages, then tried to relocate the gull. For the next two hours I searched Duluth, from Canal Park to the Miller Hill Mall, and from 23rd Avenue West to 26th Avenue East — every place I could think of that might attract Ring-billeds — parks, athletic fields, fast food restaurants, school grounds, even the parking lot at the mall. Nothing! Although I had managed to take a few distant photographs before it took off, it seemed unlikely that they would turn out well enough to verify this Accidental species.

At 3:40 P.M., I returned to Canal Park and was amazed to see the Mew Gull standing on the same cement wall as before! After making more phone calls, I despite constant vigilance until sunset that day and throughout the following day.

The Mew Gull showed a more upright stance and a longer projection of the wings past the tail tip compared to the Ring-billeds. Its smaller size was best seen while these species were standing side-by-side, but this was also apparent in flight, where its wingspan appeared to be 15–20% less than *delawarensis*. Its dainty bill, large eye, and rounded head shape all produced a classic "dove-like" expression.

Its legs were dull greenish-yellow, similar to the bill color. The bill was slightly down-curved with smooth lines, lacking any bulge at the gonys. It was proportionately shorter than the bill of *delawarensis* and initially appeared unmarked. Closer scrutiny through a Kowa TSN-4 @40X from as close as 75 yards revealed a thin, dark vertical line on the lower mandible near the gonys.

During this initial observation, its irides appeared to be dark brown, but Karl Bardon was able to relocate it four days later at the Superior Landfill in Douglas County, Wisconsin. His photographs from point-blank range show dark yellow irides, as well as several additional unique plumage characteristics that confirm it as the same individual. Unfortunately, no one was ever able to relocate it in Minne-

ing on its crown, hindcrown, auriculars, and hindnape. The head and neck appeared otherwise whitish. Its mantle consistently appeared about one shade of gray darker than *delawarensis* at all times, irrespective of viewing angle; this difference was especially noticeable in flight. The primaries at rest appeared black, with white apical spots on each visible primary tip. The tail and underparts were entirely white.

In flight, its wing tip showed more extensive white compared to *delawarensis*, with large, white mirrors in the outermost two primaries. The under-wings appeared whitish except for the dark tip, which also showed two large, white mirrors. These two white mirrors on its wing tip, along with its darker mantle shade, easily distinguished it from the Ring-billeds in flight.

Identification: The combination of a small and slim-looking bill, rounded head shape, darker mantle, large white mirrors on the outermost two primaries, and smaller size when directly compared to *delawarensis* eliminates other species. Adult California Gull (*L. californicus*) also has a darker mantle than Ring-billed, but *californicus* is larger, with a longer and heavier bill that usually shows both black and red markings. Compared to an adult Ring-billed, the Mew Gull (subspecies *brachyrhynchus*) is "distinctly dark-mantled" with no overlap in mantle shade (Tove 1993). More challenging is elimination of the "Common Gull" (*L. canus canus*).

During winter, Common Gull usually shows an irregularly-shaped band near the bill tip; when present, this band often separates yellow on the bill tip from gray-green to greenish-yellow color on the bill base. In contrast, the bill of *brachyrhynchus* is completely dull yellow and unmarked, although some individuals may show a thin, dusky subterminal band in winter (Grant 1986, Tove 1993).

Compared to the Common Gull, *brachyrhynchus* has more diffuse head markings in winter, producing a "uniform grey-brown head" (Grant 1986). According to Tove (1993), both mantle shade and wing tip pattern of Common Gull are intermediate between *delawarensis* and *brachyrhynchus*. The mantle shade of Common Gull is only slightly darker than *delawarensis*. Common Gull shows a broad black wing tip like *delawarensis*, but has large white mirrors on its outer two primaries like *brachyrhynchus* (Harris *et al.* 1989, Tove 1993). Photographs of these two subspecies in definitive basic plumage are shown in Grant (1986), Tove (1993), and Enticott and Tipling (1997).

Distribution: The Mew Gull breeds in North America from western and central Alaska, central Yukon, and portions of Mackenzie, south to the Alaska peninsula, south-coastal and southeastern Alaska, coastal and northern British Columbia, northern Alberta, and in northeastern Manitoba at Churchill (Godfrey 1986, AOU 1998). In migration and in winter, *brachyrhynchus* is casual to accidental in the interior of North America and along the Atlantic Coast. The Common Gull (subspecies *canus*) breeds in Eurasia, and is casual to accidental in Nova Scotia, Greenland, Iceland, and other Atlantic islands (AOU 1998). This form (species?) may be responsible for additional winter records of the Mew Gull along the Atlantic Coast (Tove 1993), although the AOU (1998) notes that all specimens from eastern North America are *brachyrhynchus*.

Extralimital reports of the Mew/Common Gull in North America have increased dramatically since about 1988 (Svingen 1997). Several Mew Gulls were found in nearby states during December 1998, at about the same time as the Canal Park record. Two first-basic gulls were discovered during CBCs in Iowa (Brock 1999), and Wisconsin had three records, including two different individuals on the 12th and the 13th in Milwaukee (Granlund 1999). Minnesota now has three records of adults (Pieper 1982, Svingen 1997) and is long overdue for its first immature Mew Gull.

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Proceedings of the Minnesota Ornithological Records Committee

Kim R. Eckert, M.O.R.C. Chairman

There were two meetings of the Committee earlier this year, on 11 April 1999 and 29 August 1999. Among the items on the agenda at these (and previous) meetings were discussions of certain records, according to our procedures:

- those which are potential first state records;
- those for which there is a question of origin (i.e., whether or not the bird might have been an escape/release from captivity);
- those which are recirculated after inconclusive first-round votes;
- those with completed votes which are reconsidered at the request of a member;
- those primarily or entirely documented with a photograph or tape recording (which are difficult to circulate by mail).

Formerly, actual votes on these records were taken at the meetings themselves, but now members usually have the option of mailing in their votes later. Accordingly, the results of the votes of records discussed at the April meeting are included below, and the results of those discussed at the August meeting will be included in the Spring 2000 issue of ***The Loon***.

The following records were voted on January – July 1999 and found to be Acceptable:

- Sharp-tailed Grouse, 28 February 1998, near Luverne, Rock Co. (record #98-21, vote 6–1). After the identification

was accepted, there was a discussion and vote on the question of origin at the August meeting; by majority vote, the record will be filed as a Regular (o) species: i.e., the possibility of this bird being an escape or release from captivity is considered to be about the same as the possibility of it being a naturally occurring vagrant.

• Brambling, 23 October 1998, Hoyt Lakes, St. Louis Co. (record #98-90, vote 7-0, ***The Loon*** 71:46–47).

• Western Tanager, 27 April – 1 May 1998, Monson L., Becker Co. (record #98-93, vote 7–0).

• Yellow-throated Warbler, 6 September 1997, Fridley, Anoka Co. (record #99-01, vote 7–0).

• Least Tern, 12 September 1998, Gabriel L., Lyon Co. (record #99-03, vote 7–0).

• Eurasian Collared-Dove, mid-November – December 1998, Lynd, Lyon Co. (record #99-07, vote 7–0)

• Lark Bunting, 25 August 1998, Richfield, Hennepin Co. (record #99-08, vote 7–0).

• Scissor-tailed Flycatcher, 24 October 1998, Grand Marais, Cook Co. (record #99-09, vote 7–0).

• Iceland Gull, 28 November 1998, Duluth, St. Louis Co. (record #99-10, vote 7–0).

• Eurasian Collared-Dove, 15 December 1998, near Alden, Freeborn Co. (record #99-12, vote 6–1).

• Great Black-backed Gull, 24 December 1998, Duluth, St. Louis Co. (record #99-13, vote 7–0).

• Eurasian Collared-Dove, 29 January — August 1999, Jasper, Pipestone/Rock counties (record #99-15, vote 6–1).

• Plegadis, sp., May 1998, Boon L., Meeker Co. (record #99-16, vote 7–0; the vote on this being a White-faced Ibis was Unacceptable, 0–7).

• Mew Gull, 13 December 1998, Duluth, St. Louis Co. (record #99-17, vote 7–0, ***The Loon*** 71:154–156). Photographs were also taken of this bird, and by unanimous vote it was decided these photos are identifiable on their own. Since there had been no previous photos or specimens of this species, it is now included on the Accidental list without the "s" qualifier.

• White-eyed Vireo, 8 May 1999, Hok-Si-La Park, Goodhue Co. (record #99-19, vote 7–0, ***The Loon*** 71:168–170).

• Black-headed Grosbeak, 13 May 1999, Middletown Twp., Jackson Co. (record #99-20, vote 6–1).

• Lazuli Bunting, 19-21 May 1999, Boyd, Lac Qui Parle Co. (record #99-22, vote 7–0, ***The Loon*** 71:165).

• Scissor-tailed Flycatcher, 22-23 May 1999, Duluth, St. Louis Co. (record #99-23, vote 7–0, ***The Loon*** 71:168).

• Scissor-tailed Flycatcher, 27 May 1999, near Nevis, Hubbard Co. (record #99-24, vote 7–0, ***The Loon*** 71:168).

• Red Phalarope, 29 May 1999, Duluth, St. Louis Co. (record #99-25, vote 7–0, ***The Loon*** 71:166).

The following records were voted on January – July 1999 and found to be Unacceptable:

• Pomarine Jaeger, 11 October 1970, Duluth, St. Louis Co. (record #97-37, vote 3–4, ***The Loon*** 43:95). This published record, which occurred before the Committee was formed, had not been voted on; a vote was taken this year since some felt the documentation was not adequate. The identification was based only on "the large size and steady, heavy flight of this jaeger." However, there was no direct size comparison with any identified species of gull, which leaves the impression of size subjective and in some question. Also, Parasitic Jaegers often fly with steady and slow wingbeats when not in active, close pursuit of a gull. Therefore, although it was agreed this may well have been a Pomarine (and it was originally published as such), the majority felt it is best to consider this jaeger unidentified.

• White-winged Dove, 21 April 1998, Bloomington, Hennepin Co. (record #98-42, vote 0–7). This dove was described as having a white "X-like pattern across the back" in flight and as being "an overall medium slate gray in color." However,

neither of these features is consistent with this species. In addition, the observers partly based their identification on it having a different "butterfly-like" flight, even though manner of flight is not a field mark in any of the larger pigeons/doves. It was unanimously agreed that a more accurate description is needed for such an unusual species to be accepted (it would have represented a third state record), and the opinion was advanced that this might have been a Rock Dove with white on the wings.

• Black-headed Gull, 29 May 1998, Duluth, St. Louis Co. (record #98-59, vote 1–6). Although it was agreed that both birds involved in this record were probably correctly identified, the identification relied only on bill color and overall body size to eliminate the similar Bonaparte's Gull, and for a potential fourth state record it was felt a more complete description was necessary. Most importantly, neither bird was seen in flight, so that this species' most diagnostic feature — its under wing pattern — was not visible. Also, since the observer was looking somewhat into the sun at the time, with the gulls about 100 yards away, it was felt that the described bill colors might not have been seen clearly enough.

• Sabine's Gull, 6 September 1998, Big Cormorant L., Becker Co. (record #98-81, vote 0–7). Although the description of the wing pattern seems to be diagnostic, the described colors of the head and secondary coverts are not consistent with a juvenile Sabine's. Since the tail "had a terminal black band," this individual was a juvenile, and in this plumage a Sabine's crown, ear coverts and nape are a uniform grayish brown (the head is not "dirty white with a gray ear-spot"), and the secondary coverts are similarly grayish brown (and not "dark gray" as described).

• American Dipper, 25 July 1998, Judge C. R. Magney State Park, Cook Co. (record #99-02, vote 1–6). The only description given in the documentation is that it was "brown to gray" and "about the size of a dove." While it was seen to swim underwater and perch on a rock, there is no indication as to why it wasn't a duck or even a muskrat or other mammal.

• Pomarine Jaeger, 26 September 1998, Duluth, St. Louis Co. (record #99-04, vote 3–4). The identification essentially relied on the jaeger being larger and "heavier bodied with slower wing beats and gull-like flight" than the jaeger flying next to it, and by its "blunt" projecting central tail feathers. However, the majority felt the possibility of the larger bird being a Parasitic Jaeger is not precluded, since the smaller jaeger with it might possibly have been a Long-tailed. (This smaller jaeger was described as having a "tern-like flight" and "pointed" central rectrices "maybe three inches long," and both of these features would be consistent with a subadult Long-tailed.) And while the central rectrices of the jaeger in question were described as "blunt," this is not synonymous with rounded. The possibility also remains that both jaegers might have been the same species (e.g., Parasitic), since female jaegers can appear noticeably larger than males of the same species.

Clark's Grebe, 30 August 1998, Agassiz N.W.R., Marshall Co. (record #99-05, vote 1–6). The most useful field mark to separate Clark's Grebe from Western — bill color — was apparently not noticed or described. In addition, the description of the facial pattern is ambiguous, with the black cap extending "down to the top of the eye."

• Turkey Vulture, 7 February 1999, Amherst Twp., Fillmore Co. (record #99-14, vote 1–6). The entire description of this bird, which was feeding on carrion, only includes mention of a "dull buff naked head." While the behavior might suggest the identification was correct, the documentation is inadequate since there is no description of the bird's size, shape, plumage, etc.

• Yellow-throated Warbler, 1 May 1999, Shoreview, Ramsey Co. (record #99-18, vote 1–6). While the identification may have been correct, the brief description only mentions "black streaks on the sides of the yellow throat, and all white

below the yellow." With no description of the head or upperparts, Pine Warbler and female Blackburnian Warbler are not precluded.

• Bewick's Wren, 16 May 1999, Faribault, Rice Co. (record #99-21, vote 2–5). The brief description of the plumage only includes mention of a "warm, reddish brown" back, a "prominent, white eye stripe," the white belly and chest, and "a little buff on its side." However, these features suggest Carolina Wren as much as they do Bewick's. Also, the identification was only made later from memory while the observer consulted a field guide (which may have influenced his memory of the bird).

• Scissor-tailed Flycatcher, 23 June 1999, North Germany Twp., Wadena Co. (record #99-26, vote 1–6). The identification was probably correct, since the bird was described as being a "medium-size passerine with an extremely long tail," as "light-colored with no obvious markings," and with a darker tail. However, the light conditions were poor at the time, the observer was not using optics, and the possibility of it being a Fork-tailed Flycatcher is not precluded.

The efforts of all those observers who document their 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: David Alexander, Chuck Bailey, Al Batt, Peg Benedict, Betsy Beneke, Tom Boevers, Terry Brashear (two records), Judd Brink, Paul Budde, Philip Chu, Kim Eckert (two records), Fred Eckhardt, Wayne Edgerton, Paul Egeland, Audrey Evers, Janet Green, Anthony Hertzel (five records), Bob Janssen, Robbye Johnson, Jeanie Joppru, Curt McCamy, David Neitzel, Art Overcott, Pam Perry, Tom Ramsay, Jeff Stephenson, Peder Svingen (seven records), Tom Tustison, Warren Woessner, and Kevin Woizeschke.

There were also other observers who documented records which were not submitted for a vote to the Committee. Their documentations, though not mentioned here, are also appreciated.

Summary: 31 records voted on: 20 Acceptable (65%), 11 Unacceptable (35%).

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BOOK REVIEWS

Birds of the Trans-Pecos, by Jim Peterson and Barry R. Zimmer, 1998, University of Texas Press, 208 pages, 33 color plates, 14 b&w drawings, two maps. List paperback $19.95, hardcover $35.

If you have been to Texas to bird with Kim Eckert, MOU member and birding guide from Duluth, you might remember that last day when you turn away from the Rio Grande and cut across country, back to the airport and the frozen north. If you could rent a car there, in the Falcon Dam neighborhood, and continue

northwest along the river, up through Laredo and Del Rio, you would enter yet another of the many Texas birding worlds, the Trans-Pecos area.

The Trans-Pecos is essentially that portion of Texas beneath New Mexico and a bit to the east. Some travelers consider it the most scenic of Texas' eight major biogeographic regions, and the most interesting for naturalists, including birders. You might think of this area only in regard to the Colima Warbler, but more birds have been recorded here than in all but three of our states.

Peterson and Zimmer provide an excellent handbook for the area, discussing briefly the geography of the area, then the major parks, reservoirs, and recreational lakes (plus a few sewage treatment ponds), and then present a well-annotated list of the species to be found here. This is followed by a seasonal distribution table and comments on species of special interest. The text throughout is clear and succinct. The pen and ink drawings are well done, the photos serving as attractive appetizers.

This book would be a fine addition to the book box in any vehicle headed south for birding in this part of the country. I have yet to see a book from Texas University Press that is not handsome and well crafted. This volume upholds that reputation. It is useful, interesting, and attractive to the eye. **Jim Williams, 5239 Cranberry Lane, Webster, WI 54893.**

BIRDING BY HINDSIGHT

A Second Look at Ego, Id, and ID

Kim R. Eckert

Id: the part of the psyche that is the source of instinctive energy. Its impulses are modified by the ego. — The Random House College Dictionary

There is this experienced Minnesota birder — to protect his privacy let's call him Burt Durr, and let's say he lives in Duluth — who has been birding intensively and extensively for over 35 years, who keeps informed of all the latest identification information found in those specialized bird ID references (he has even authored some of them), and who shares his expertise while leading birding tours. Burt sounds like quite the expert, doesn't he? But Burt has this terrible secret. There are some birds he has trouble identifying — even things that other birders with less experience seem to handle with less difficulty.

It's not that Mr. Durr impulsively proceeds to misidentify them, though. (His id is apparently kept in check by his ego.) He is well aware why they can be difficult and surely knows how to correctly make their IDs, but he sometimes ends up taking longer than he thinks he should when deciding what they are. Or Burt just lets them go as unidentified,

which is always better than misidentifying them, of course — though it's tough to avoid a bird's identity when you're on tour with 20 people behind you asking what it is. It's also tough on the ego.

Those familiar with this *Hindsight* series of articles know that misidentifications tend to result from less experienced or less cautious birders who are unaware of what to really look for, who rely too much on general field guides which inadequately illustrate or discuss those more complicated identifications. The following article will mention some of those species discussed in previous *Hindsight* articles, but some of it will include other birds you might never have thought of before: species that are covered in the ID references about as well as they can be. Birds you perhaps never thought an experienced birder like Burt could ever have trouble with. Or at least admit it.

The point here is to be aware that beginners aren't the only ones who have ID difficulties, and if an experienced birder sometimes has trouble with certain species than those with less experience would be advised to take a second look before deciding to identify them. So, what birds until now was Burt Durr too embarrassed to admit sometime frustrate his abilities?

Western and Clark's Grebes. When these two grebes were split a few years back, it seemed simple enough: check out the bill color and whether it's black or white around the eye. Burt, however, often has trouble seeing exactly what the facial pattern is on many of these grebes and wonders how so many birders rely on this as the primary field mark. He finds their bill colors easier to see. Burt also sees grebes that defy his best efforts to identify them: many have intermediate facial patterns, while a few others have Western-like facial patterns and orange Clark's-like bills. Still other grebes he has seen looked entirely like typical Westerns when viewed from one side, but when they turned around 180 degrees they looked just like Clark's in every respect! Burt's advice: consult the Fall 1989 issue of ***The Loon*** (61:99–108) for more grebe ID information.

Trumpeter Swan. Now that this reintroduced species has been declared established in Minnesota and on the Regular list, how do you tell it from a Tundra Swan? Don't ask Burt. He's still wondering how "established" this swan can be when the releases just began in the 1980s — when there are still neck-banded Trumpeters out there accepting handouts. There are subtle bill, forehead and crown shape differences between Tundras (which don't all have yellow lores) and Trumpeters (which don't all have neck bands), but these are hard to discern at typical swan-viewing distances. Unless it's summertime or winter, when all the Tundras should be elsewhere, Burt can't help but wonder how many swans in Minnesota are being misidentified.

Female teal. From midsummer into early fall, when adult males are in eclipse plumage, all puddle ducks look like females. This is not necessarily a problem, since the females of most species are readily separable by some visible field mark. But so many of the ducks swimming around in Minnesota at that time of year are Blue-winged Teal, and these look quite nondescript, practically devoid of field marks. Sure, when their spread wings are visible it's easy, but Burt is often surprised by how often he assumes he's looking at Blue-winged Teal until they fly and turn into Green-wingeds.

Scaup. Just look at their head shapes and wing stripes. Even Burt knows that. While he sees obvious Lesser Scaup all the time with that slight indentation in the back of their slightly peaked heads, he too often sees actively diving scaup with apparently perfectly rounded heads that aren't necessarily Greaters. It seems that diving can alter a duck's head shape, making a Lesser appear more round-headed than it really is. As for wing stripe length, sure, Burt can often see the difference, but too many times he has difficulty determining this feature on a rapidly flapping wing and wonders how so many birders routinely are able to see this.

Cooper's Hawk. No matter how much time Burt spends at Hawk Ridge with the counter, Frank Nicoletti, he can't always claim to confidently see those subtle differences in shape and manner of flight that are second nature to Frank. Burt's instinct, at least during migration, is to assume all small to mid-sized accipiters are Sharp-shinneds (which at Hawk Ridge is literally true about 99% of the time), but at other places at other times of year that assumption is not good enough. And guessing doesn't work at all when a larger immature accipiter goes by — the numbers of goshawks and Cooper's in Duluth most years are not that different. At least Burt is content to let several of these hawks go by as unidentified accipiters, but everyone else seems to be able to identify all of them — why do you seldom see the entry "Accipiter, sp." on Christmas Bird Counts, for example?

Immature Red-shouldered and Broad-winged Hawks. The next time you're in the woods of central or southern Minnesota and come across a perched immature buteo, good luck trying to decide if it's a Red-shouldered or Broad-winged. Without direct comparison, size won't be of any help, and about the only advice Burt can find in one of those raptor guides is that the Red-shouldered has paler bands on the secondaries, and its light tail bands are thinner than the dark bands (unmarked secondaries and thicker dark tail bands on the Broad-winged). However, this same guide shows a Red-shouldered with its secondary bands obscured in shadow and very hard to see; it also shows some of these hawks with the light and dark tail bands of about equal width. Again, good luck.

Immature Swainson's Hawk. Or, the next time you're in the open country of western Minnesota and come across a perched, motley-looking immature buteo, don't assume it has to be just another one of those ubiquitous immature Red-tailed Hawks. Juvenile and one-year-old Swainson's Hawks are often pale-headed, just like many prairie Red-taileds, and they typically look every bit as blotchy and spotted on the back and folded wings as on a typical Red-tailed. More than once Burt has been ready to pass one of these off as just a Red-tailed, only to have it take flight and turn into a young Swainson's once its distinctive underwing pattern became visible.

Black-bellied and Golden-Plovers. When in breeding or alternate plumage, it's a cinch telling a Black-bellied Plover from an American Golden-Plover. And when in basic or winter plumage, they are almost as easy: Black-bellieds are gray above and golden-plovers are brown. But Burt often has a real problem with some juveniles in early fall and some adults in early spring: these Black-bellieds can look more brown than gray, while golden-plovers might appear more gray than brown. While a golden-plover is smaller overall with a smaller bill and a more sharply defined supercilium, try determining those features without direct comparison. Of course, in flight these two plovers look quite different, but when just walking around these two shorebirds can easily fool you.

Yellowlegs. You may be quite aware of all the differences between Greater and Lesser Yellowlegs: overall size, call notes, bill size and shape, and their underparts markings in alternate plumage. If so, take a group of silent yellowlegs during fall migration, a group separate from any other birds which might provide direct size comparison, and tell Burt what they are. If you concentrate on their bills you are on the right track, but don't be surprised if, like Burt, you see some bills whose length and thickness appear in-between and not very helpful. Or some otherwise typical Greaters with straight — rather than slightly upturned — bills. Burt is also embarrassed to admit he has often seen apparently taller yellowlegs he was sure were going to be Greaters until they walked over next to some Lessers and seemed to diminish in height.

Godwits. The challenge here is similar to that described previously with the two plovers. On occasion, usually in spring,

Burt has seen these relatively plain godwits which were sort of this non-descript brownish coloration overall. They were certainly not Hudsonians in alternate plumage, so by default he was assuming they would be Marbleds. Until they flew — revealing white rumps and wing stripes.

Peeps. Burt has read and re-read that article on peep ID in the Summer 1996 issue of ***The Loon*** (68:121–124), but there are times it doesn't seem to help. Like yellowlegs, peeps are almost everywhere in migration, and, especially when seen in unfavorable light or at a distance, they often are left as unidentified. But what Burt wonders about the most is whether any of those distant backlit peeps might be Western Sandpipers. Minnesota has a grand total of only three documented records ever of this shorebird — meanwhile, birders in surrounding states are reporting Westerns on a regular basis. Are Minnesota birders overlooking this species, miscalling Westerns as something else, or are our neighbors in other states doing the opposite: misidentifying other peeps as Westerns?

Dowitchers. As the trusty *Geographic* field guide shows, Short-billed Dowitchers come in three subspecies, with the one migrating regularly through Minnesota (*hendersoni*) pretty easy to tell from Long-billed when in alternate plumage. Burt, however, spends time elsewhere and loses all confidence when looking at alternate-plumaged Short-billeds of the other two races. (And do we know for sure those other two races never occur here?) The *Geographic* guide goes on to explain how juvenile dowitchers are readily separable by their tertial feathers. What bothers Burt, though, is how to distinguish a juvenile molting into basic plumage (with its diagnostic tertial pattern) from an adult in similar molt (whose tertial pattern is of no help).

Gulls. Burt used to fancy himself as somewhat of a gull expert. Not any more. Not in the last few years with the internet regularly featuring photos and lengthy descriptions of strange gulls which gulloholics discuss ad infinitum and without conclusion. Are they hybrids or merely birds with atypical features? Are they identifiable? Who knows — certainly not Burt. Years ago he liked to study Thayer's and Iceland Gull ID, decided (along with most other birders) they often were inseparable and waited for them to be lumped. He's still waiting.

Hairy and Downy Woodpeckers. No, Burt is not kidding about this problem. Sure, these two woodpeckers are routine daily fare no matter when and where you bird in Minnesota, but more than once Burt has witnessed birders disagreeing about whether it was a Hairy or Downy. At times he himself has had to take a second, longer look at a woodpecker to make sure of its ID. The problem arises, of course, when the woodpecker is a fair distance away and when there's nothing around for size comparison. Generally, it seems, the bird in question turns out to be a Hairy with a shorter-than-normal bill, but it's interesting how easy it is to puzzle over the identity of two such common birds.

Eastern Wood-Pewee. A frequent misidentification takes place when birders are unaware that phoebes often have noticeable wing bars — the result: an erroneously reported pewee. Though Burt doesn't have this difficulty, he has dealt with other ID problems involving the Eastern Wood-Pewee. This mostly occurs with migrant Olive-sided and Alder/Willow Flycatchers when relative size is unclear. These other flycatchers are not usually thought of as similar to the pewee, but a pewee often looks dark-breasted enough to suggest an Olive-sided, and the only difference Burt can usually discern between an Alder or Willow Flycatcher and a pewee is the pewee's longer wings extending farther down the tail.

Empidonax flycatchers. While songs and call notes, along with breeding ranges and habitats, remain the best things to consider when separating members of this genus, Burt thought he was making some progress using eye rings and primary extensions to make some IDs. Allowing for some variation among

individuals, he finds the boldest eye rings and shortest primary extensions on Yellow-bellieds and Leasts; Willows, Alders and Acadians have long primary extensions and nonexistent to faint eye rings. However, the ID references specializing in this genus to some extent contradict each other's — and Burt's — conclusions.

Crows and ravens. This ID difficulty is just as embarrassing for Burt as trying to tell a Hairy from a Downy. Even though ravens and crows differ in size, bill and tail shapes, manner of flight and calls, it is disconcerting how hard it often is to confidently decide how big that lone, perched corvid really is. At least it's only a small minority of birds that Burt struggles with, and these usually turn out to be ravens. And at least Burt avoids one of the more frequent misidentifications in southern Minnesota: miscalling a crow as a raven. The cause of this probably results when a crow is heard giving one of its alternate calls, which is guttural and raven-like. Or when a crow in molt flies by showing an uneven — and raven-like — tail shape.

Wrens. Yes, as any field guide can tell you, Winter Wrens do have shorter tails than House Wrens and heavily barred bellies. But try determining tail length as that wren vanishes into the undergrowth — it's not likely you will even get a second glimpse, let alone a second look. And, guess what: House Wrens also have barred bellies. It's also disconcerting how similar young Marsh and Sedge Wrens can look, especially when concealed in the thick marsh vegetation. But what bothers Burt even more are those rumors that the Marsh Wren may soon be split into two species, both of which probably occur in Minnesota. No one to his knowledge, however, has come forward with a clear explanation of the differences in their ranges, songs and plumages.

Savannah Sparrow. There are certainly lots of sparrows out there which seem to confound lots of birders. But the only one which repeatedly causes Burt to take a second look may not be what you'd expect: it's the Savannah Sparrow in fall. While these familiar and widespread sparrows are normally easy to recognize, in fall many of them have white, rather than yellow, lores. They then look a lot like Song Sparrows except for their shorter tails and paler overall plumage — features which are not easily discerned without direct comparison.

Meadowlarks. Burt used to think Minnesota meadowlarks, even the silent ones in fall, were not much of a challenge given a decent view of their central tail feathers: wide dark areas along the shafts = Eastern; narrow cross-barring = Western. The newest edition of the *Geographic* guide even seems to reiterate the value of this field mark. The problem is what a relatively unfamiliar reference book by Peter Pyle, *Identification Guide to North American Birds*, has to say. This authoritative and thoroughly researched volume darkly states under Eastern Meadowlark: "From Western Meadowlark with caution; this is one of the most difficult in-hand species identification problems."

Redpolls. As mentioned earlier, Burt long ago gave up any pretense of being a gull expert, as he still waits in vain for ornithologists to abandon the false distinction between Thayer's and Iceland Gulls. He's been waiting even longer for them to lump the redpolls. Redpolls are a familiar sight in most winters, but with so many of them having "in-between" plumage features (see the Winter 1997–98 issue of ***The Loon***, 69:214–216), trying to categorize each of them as either a Common or Hoary is hopeless. Lumping the two redpolls into one would therefore seem the sensible thing to do, right? Hardly. The latest word is that they may split them into three species!

A final reminder to the reader. If there are some IDs you struggle with, if occasionally a misidentification is made, you are not alone. You're in good company — with Burt Durr, not only a decent birder but a heck of a nice guy as well. I thank Burt for cooperating in this psychoanalysis of his id, ego and ID skills.

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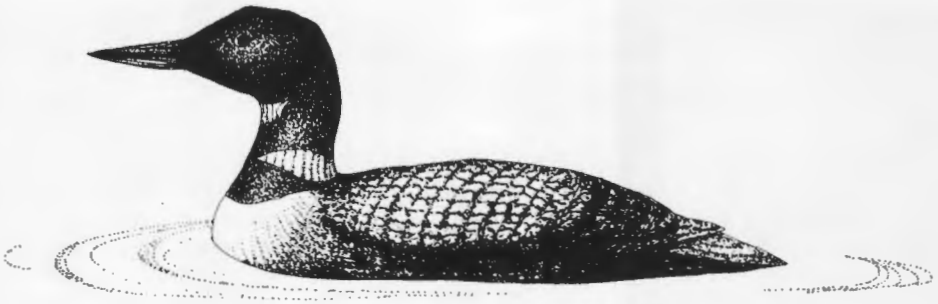
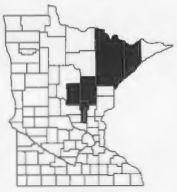


NOTES OF INTEREST

LAZULI BUNTING IN LAC QUI PARLE COUNTY — On 19 May 1999 during the early evening, I was reading at my bird-watching window when a pair of Indigo Buntings flew onto the ground and ate cracked corn. This was interesting because it was the first time I have identified a female of this species. A third bird flew in and sat on a wire, a few inches above the two buntings. It had an all blue head, orange chest and white belly. Lazuli Bunting! I saw them last winter at Patagonia, Arizona. The birds were about 25 feet in front of me. A grackle walked up and they flew away. The Lazuli Bunting was seen again early the next morning so I called the Minnesota Birding Hotline.

The bird was seen several times on the 20th and 21st. On the 21st, the last day he was seen, I refound the Lazuli for Anthony Hertzel and Peder Svingen. The people who were here the following two days saw no Lazuli but over 50 varieties of birds were seen in five days, all in my backyard. This was a good spring for me, as four new birds were added to my list for Lac Qui Parle County: Ferruginous Hawk, Blue-gray Gnatcatcher, Black-throated Green Warbler, and the Lazuli Bunting. Checking my records, I may have seen two Lazuli Buntings in my backyard on 26 May 1973 but got a poor look and was not sure of what I saw. **Fred Eckhardt, P.O. Box 704, Boyd, MN 56218–0704.**

FALL 1998 INFLUX OF PACIFIC LOONS INTO MINNESOTA — A minimum of seven and possibly as many as nine Pacific Loons (*Gavia pacifica*) were present in Minnesota during fall 1998. Not since the fall of 1993 when seven or eight were found (***The Loon*** 66:45–46) have so many been present in one season. Most amazing was the discovery of **three** Pacific Loons by Karl Bardon and myself off Park Point in Duluth, St. Louis County on 18 October 1998. The only other Minnesota record involving more than one individual was two on Lake Vadnais, Ramsey County on 22–23 October 1986 (***The Loon*** 59:50–51).



This fall's parade started on 5 October at Mille Lacs with one found by Anthony Hertzel on Wigwam Bay, Mille Lacs County; it was relocated there several times through the 20th including on the 11th, when another Pacific Loon was found by the same observer at a different location on Mille Lacs. This second individual was found on Garrison Bay, Crow Wing County, and it remained there through at least 12

November. Meanwhile, another or the same Pacific Loon was reported near West Myr Mar Reef on 18 October. Although the location in Aitkin County was only about three and a half miles as the loon flies from Garrison Bay, no one reported looking for the other two Pacific Loons on the 18th. Whether or not this represented a third individual on Mille Lacs cannot be determined, from either the dates of observation or the descriptions, since the Aitkin County bird was not documented.

Kim Eckert and others found a Pacific Loon on Burlington Bay, Lake County on 31 October that remained there through at least 12 November. What may have been the same individual was then reported in Duluth on 14 November (at the time of this writing, no documentation for the Duluth record has been submitted, so the descriptions of these two birds cannot be compared). Finally, a first Itasca County record of Pacific Loon was established on 8 November when Karen Sussman and I found one off Sugar Bush Point on Lake Winnibigoshish.

Except for 1992 when there were none, the recent occurrence of this species certainly warrants Regular status as indicated on the 1 January 1999 Minnesota checklist. **Peder Svingen, 2602 E. Fourth St., Duluth, MN 55812–1533.**

RED PHALAROPE IN DULUTH — While scanning Lake Superior for Red-throated Loons on 29 May 1999, I spotted a small bird swimming in the lake far off shore, perhaps half a mile away. With nothing next to it for comparison, I could only tell it was too small to be any duck or gull (12" long, estimated) and the only thing that came to mind was Dovekie or other small alcid. Bill Litkey happened to come by with a better scope, and he was the first one to suggest it might be a phalarope. Gradually, all 30+ members of our Minnesota Birding Weekend group were rounded up and various scopes (Leica, Kowa, and Swarovski) of powers up to 60X were used to show it was indeed a Red Phalarope in alternate plumage — probably a male since its white cheeks were not very evident. The posture, shape, and size all fit a phalarope, and when the bird turned at certain angles, its overall reddish plumage was seen by all (this color was most visible on the neck). A couple times, the bird flew for a short distance when I was not at a scope, but Mike Hendrickson who was at a scope could see its very contrasting white under-wing surface, and another observer, Bill George, could see its obvious white wing stripe. **Kim Eckert, 8255 Congdon Blvd., Duluth, MN 55804.**

ANOTHER RED PHALAROPE IN NORTHWESTERN MINNESOTA — On 23 October 1998, I discovered a phalarope at the Crookston lagoons in Polk County and immediately suspected Red Phalarope (*Phalaropus fulicaria*) due to the late October date. In October 1993 (***The Loon*** 67:109) I had found one in Roseau County. Except for a May 1977 record in Clay County (***The Loon*** 49:172–173) and 29 May 1999 (see above) all previous Minnesota records of Red Phalarope fall between late September and mid-November. This individual appeared to be a juvenile molting into first basic plumage.

It usually stayed near the Tundra Swans that were feeding on the same lagoon and it made short flights whenever one of the nearby dabbling ducks approached too closely. Although typical phalarope feeding behavior was observed (spinning and pecking at the surface of the water) it mostly swam short sprints against the wind while feeding. It was also observed bathing and preening.

Its thick, relatively short bill with a blunt tip ruled out other phalaropes; the bill appeared all black which is typical for juveniles according to Paulson (1993) in *Shorebirds of the Pacific Northwest*. Its legs were never seen. In flight, an obvious

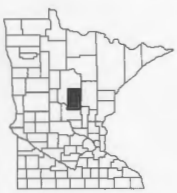
white wing stripe, dusky tail feathers with darker central rectrices, whitish underwings, and white undertail coverts were noted. Plumage details noted while the bird was swimming included a black eye patch on an otherwise white face, white forecrown, blackish hindcrown connected to a dusky hindnape stripe, rich brown feathering with buff edging at the posterior base of the neck, pearly gray scapulars and back, dark gray tertials edged in buff, dark gray primaries, a gray wash extending from the sides of the lower neck onto the sides of the upper breast, and otherwise completely white underparts except for a faint smudge of buff on the lower throat (visible only at close range). The presence of black on the crown, brown and buff markings on the anterior mantle, dark tertials narrowly fringed whitish, and retention of buff on the foreneck are further indicators of immaturity (Paulson 1993).

It was relocated the next day by several observers and represents the tenth state record, the first for Polk County, and the third for the Northwest region. **Peder Svingen, 2602 E. Fourth St., Duluth, MN 55812–1533.**

BROWN-HEADED COWBIRD EGGS IN SWALLOW NEST — Numerous bird houses have been placed on the grounds of Inver Hills Community College, Inver Grove Heights, Dakota County. I have monitored them for nest results over several seasons. On 25 May 1999, I checked all for nest activity for the first time this spring. One of the boxes used by Tree Swallows held a surprise for me. The swallow nest contained six swallow eggs and two Brown-headed Cowbird eggs.

I have never found cowbird eggs in the nests of any swallow species before. The entrance hole on this box had been enlarged by squirrels, making entrance for a female cowbird easier. I can't recall finding any parasitized nest of any bird house or natural cavity-nesting host species over the years, although Prothonotary Warblers are somewhat frequent hosts. I tossed the cowbird eggs. The nest was an active one, since an adult swallow had left the box upon my approach, and both adults flew around calling and diving at me while I was checking the box. **Russell B. Hofstead, 1118 – 6th Ave. S., South St. Paul, MN 55075-3230.**

VEERY IS TEN YEARS OLD — Habitat is Everything. A male Veery was first mist netted and banded (1381-75-091) on 28 May 1989 as part of a study of neo-tropical migrants. The ongoing project is in cooperation with the MAPS project (Monitoring Avian Productivity and Survivorship).



The location of the MAPS study is at the Crow Wing Banding Station near Emily, MN. The vegetation is typical of north central Minnesota, with mature hardwoods bordered by wetlands. The principal canopy species are quaking aspen, paper birch, oak, and maple. The sub-canopy consists of ironwood and maple saplings. The shrub layer is mainly hazel and dogwood. The ground level is of ferns, mostly interrupted, cinnamon and shade-loving forbs, thalictrum, bunchberry, hog peanut, hepatica, and others.

The mist nets are located throughout this area, 100 meters apart, and continue to be used in the same location each year, with minimum disturbance. The netting and banding is done each year only during the breeding season (May through July).

Our Veery is a male, determined as an AHY (after hatch year) when captured on 28 May 1989. Number 091 has been recaptured and processed 25 separate times since 1989 (at least twice each year), most recently in May of 1998. The capture location has been between nets #42, #43, and #44 (total 300 meters apart) each year, with only four recaptures away from this area.

This male #091 was processed as a breeding male every year, based on CP (cloacal protuberance). Undisturbed, brushy, moist habitat is ideal nesting habitat for this secretive *Catharus* thrush, and our Veery population continues to maintain its numbers throughout the banding station area. This neo-tropical migrant spends much of the year in the Amazonia region, so it is interesting to speculate the many miles and obstacles overcome in the 20 trips he has made in the last ten years.

Old #091, at least ten years old, is showing us what he needs (at least in breeding habitat) to keep his species viable. I hope he visits us again next year. **Arden Aanestad, 5501 Hunter St., Edina, MN 55436.**

SCISSOR-TAILED FLYCATCHER IN HUBBARD COUNTY — On 27 May 1999, I observed at close range a Scissor-tailed Flycatcher in Hubbard County.

The bird was perched on a power line located on the north side of Hubbard County Road 33, just west of Hubbard County Road 49. I was heading towards Nevis from Highway 64. It was about 1:00 P.M. and I was traveling at 55 mph when I saw the silhouette or shape of a bird with an extremely long tail that flared out at the bottom. It appeared to be about a foot long total and was pale-colored. As I whizzed by, my mind said, "Scissor-tailed Flycatcher," and I hit the brakes and turned around to look at the bird again. After I turned around, I cautiously approached the bird in my vehicle. It was facing the road, pale gray with peach-pink under the wings and the long tail. It paid no attention to me and flew out a couple times to catch insects and then return to the wire. Typical flycatcher behavior. No vocalizations were heard. No photos taken. I had no doubt in my mind as to what kind of bird this was. I was surprised (pleasantly), but not confused. **Pam Perry, 3049 Natures Way SW, Brainerd, MN 56401.**

SCISSOR-TAILED FLYCATCHER IN WEST DULUTH — During the 22 May 1999 Hawk Ridge Birdathon and St. Louis County Big Day, a Scissor-tailed Flycatcher was found near the Boy Scout Landing in Gary-New Duluth by Dave Alexander, John O'Brien, Karen Sussman, and Ben Yokel. Anthony Hertzel and I were able to relocate it there the following morning and observed it flycatching along the railroad tracks, usually from perches within a few feet off the ground, although it landed on the rails several times.

Its characteristic tail was long and deeply forked with white edges. Its bill was dark and straight. The irides and legs were dark, and the head/nape, was gray becoming gray-brown on back. The wings were dark brown (blackish). The coverts appeared fresh with pale edging and no wing bars. Its breast was pale gray, becoming pinkish on the flanks, with axillaries deep salmon pink. The undertail coverts were not seen and no vocalizations were heard. **Peder Svingen, 2602 E. Fourth St., Duluth, MN 55812–1533.**

WHITE-EYED VIREO — On 8 May 1999, I visited Hok-Si-La Park in Goodhue County to look for warblers and other migrants. As I approached some thick "edge" habitat at the edge of woods, my attention was drawn to a bird that flew up to a branch about three feet off the ground in the interior of a thicket. I was able to view the bird at a range of about 25 feet for 15 seconds or so through my 8x42 Bausch & Lomb Elites. After some initial surprise, I realized that this bird was a White-eyed Vireo. After 15 seconds, the bird flew deeper into the brush and could not be relocated despite persistent searching. The bird did not sing or

Scissor-tailed Flycatcher, 23 May 1999, Duluth, St. Louis County. Photo by Anthony Hertzel.

make any call notes.

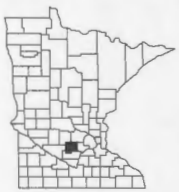
The bird immediately struck me as a vireo. It was heavier-looking than a warbler, with the thicker, short bill of a vireo. At first, the bird was facing me and I noticed yellowish lores (yellow color continued into the lower forehead) and faint yellow sides (flanks). The throat, most of the breast, and belly were white. The bird turned before it flew off and I saw greenish-gray upperparts. Two wing bars were visible on each wing (whitish). I briefly saw the dark eyes with very light-colored (whitish) borders around the pupils. The tail was blackish above and below. The legs were not observed.

Eliminating other vireos from consideration: The wing bars, the extent of yellow on the head, and the whitish eyes on this bird eliminated Red-eyed, Warbling, and Philadelphia Vireos from consideration.

The yellow was not extensive enough (especially on the breast) to be a Yellow-throated Vireo. The yellow color (especially on its head near the eyes) and the whitish eye color eliminated Blue-headed and Bell's Vireos from consideration.

To me, the identification was straightforward, and I just wish the bird had been visible longer so that I could have enjoyed it more. **David Neitzel, 7716 Upper 24th St. N., Oakdale, MN 55128.**

HOODED WARBLER VISIT IN MCLEOD COUNTY — On 12 May 1999, my wife and I were eating supper and thinking about the Community Education birding class we would be teaching in one hour. A warbler appeared in our backyard that quickly changed out focus. It was entirely yellow underneath and up onto the head. The back was olive-green. Getting a better look, we saw that the yellow went around the eyes and up over the bill. What really caught out attention was how it constantly flicked its tail open, showing white areas on the tail. This was one warbler species that we had never seen before.



After disappearing for a while, it reappeared in a shrub island and then went to take a bath in our pool. When it returned to the shrub island to preen, it sat in the arrowwood viburnum about 15 feet from us. On two occasions while preening, it held its tail fanned out and we could see that the three outside feathers on each side of the tail were mostly white. This good look at the tail, along with checking our Peterson field guide during the bird's absence, convinced us that our visitor was a female Hooded Warbler (*Wilsonia citrina*), possibly a first-year bird as shown on page 548 of *A Field Guide to Warblers of North America* (Dunn and Garrett 1997).

Time ran out on us and we had to go teach that class. Just as we were leaving, four more visitors arrived — a family of birders who responded to our call and continued the watch. The next day, we spent many hours looking for our guest but with no luck. It had been a short visit but certainly a welcome one! **Robert Schroeder, 744 Southview Drive, Hutchinson, MN 55350.**

LARGE CONCENTRATION OF SPRUCE GROUSE IN LAKE COUNTY — On Monday 22 February 1999, Dave Maslowski, a photographer friend from Ohio, and I were headed to Isabella, Lake County from Duluth to photograph Pine and Evening Grosbeaks. We drove Lake County Road 2 out of Two Harbors to save time. We had stopped along the way a few times to pick up broken branches to use for props and perches in our outdoor studio set designs. By making these stops it took us a while to get up Lake County Road 2 to its intersection with State Highway 1. By 8:40–8:45 A.M. we were about two and a half miles from the intersection with Highway 1 when I noticed a large group of birds perched

Twenty-seven Spruce Grouse, 22 February 1999, Lake County Road 2. Photo by Dudley Edmondson.

in the middle and along the sides of the road. My first thought was that these might be Common Ravens feeding on a deer carcass in the ditch. I stopped the van and I got Dave's binoculars and after one look I said "all Spruce Grouse!" We turned the vehicle off and just watched them for a few minutes. We each counted the group a least twice and the largest number of individual birds we saw on the road at one time was 24. It is possible that there were even more birds in the forest edge that did not come out to the road at the same time as the 24 that were seen. As I counted the birds both times I never saw a female grouse among them. It is very likely that they were all males!

We both wanted to try to get close enough to get quality photographs but first thought it would be wise to get some images of the group. We got out our tripods and set them up in the middle of the highway and took several frames of film. The birds paid little attention to us and many birds flew back and forth from the side of the road into the woods. They fed up and down the road the whole time we photographed them.

We got back in the van and drove toward them trying to get closer so we could get full frame shots of the birds. As we approached the concentration of birds they parted, moving to both sides like livestock, and then many of the birds flew to the edge of the forest. I was able to get few images of a bird just outside my car window but it was not the kind of image I was looking for. Because of lighting conditions and a lack of cooperation with the birds, we were unable to get the publication quality images we were looking for. When we got to the areas where the birds flew into the woods we could see many of the grouse midway up trees feeding. Dave took a few images of a male that was back lit. Just then another birder came south on Highway 2 from the Highway 1 intersection. She slowly approached our vehicle after watching the remaining group of birds still along the road behind our vehicle. She said she had come up Highway 1 from Silver Bay that morning to look for Spruce Grouse but had not seen any until she arrived at our location.

I have seen large groups of possibly 8–10 Spruce Grouse over the years on Highway 1 but I had never seen anything like this before. The final photographs revealed 27 birds in the group. **Dudley Edmondson, 4302 Cooke St. Duluth, MN 55804.**

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Purpose of the M.O.U.

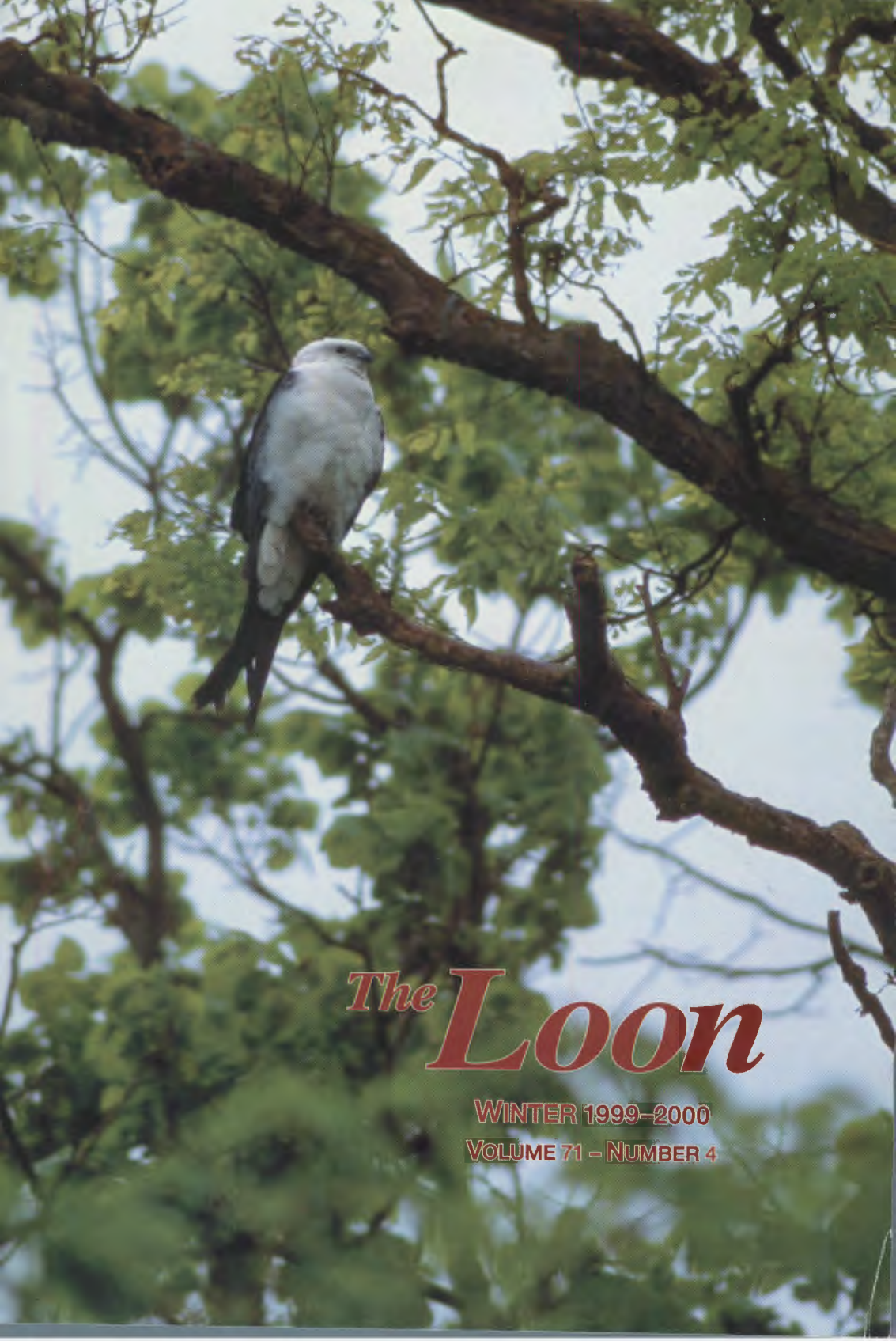
The Minnesota Ornithologists' Union is an organization of both professionals and amateurs interested in birds. We foster the study of birds; we aim to create and increase public interest in birds, and to promote the preservation of birdlife and its natural habitat.

To carry out these aims, we: publish a journal, ***The Loon***, and a newsletter, *Minnesota Birding;* conduct field trips; encourage and sponsor the preservation of natural areas; and hold seminars where research reports, unusual observations and conservation discussions are presented. We are supported by dues from members, affiliated clubs and special gifts. The MOU wishes to point out that 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 3 ½ inch 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 "The Season" should be sent promptly at the end of February, May, July and November to Peder Svingen. See key to the "The Season".



The Loon

WINTER 1999–2000
VOLUME 71 – NUMBER 4

The Loon, Minnesota's journal of birds, is published four times a year by the **Minnesota Ornithologists' Union**, the statewide bird club. Anyone interested may join. All members receive our two publications: ***The Loon*** and *Minnesota Birding.*

THE MINNESOTA ORNITHOLOGISTS' UNION
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University of Minnesota
Minneapolis, Minnesota 55455–0104

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ASSOCIATE EDITORS OF *The Loon:*
Karl Bardon, Kim Eckert, Bruce Fall, Robert Janssen, Fred Lesher, Warren Nelson, Peder Svingen, Harrison Tordoff, Nancy Weber.

MOU MEMBERSHIPS:
Yearly donations to join the MOU: Single: $20; Youth (through age 17) $15; Family $30; Supporting $50; Life $400. Canadian and foreign subscriptions $25. Also available are back issues of ***The Loon*** ($5 each) and checklists of Minnesota birds (minimum of 20 for $10).

EDITOR OF *Minnesota Birding:*
Jim Williams, 5239 Cranberry Lane, Webster, WI 54893. Published bi-monthly.

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ISSN 0024–645X

Obituary
David F. Parmelee, 1924–1998

Kevin Winker

David Freeland Parmelee passed away on 16 December 1998. Just a month earlier, David and his wife Jean were in the field working to complete their pioneering study of the birds of the Lake Mead National Recreation Area, research they had begun upon retirement from the University of Minnesota in 1992.

David was born on 20 June 1924 in Oshkosh, Wisconsin, and lived in Iron Mountain, Michigan until enlisting in the U.S. Marine Corps in 1943. After serving in the South Pacific, he went to universities in Wisconsin, Michigan, and Oklahoma, eventually receiving his Ph.D. under George Miksch Sutton at the University of Oklahoma in 1957. He was a professor at Emporia State University, Kansas (1958–1970) before becoming Director of the University of Minnesota Lake Itasca Forestry and Biological Station (1970–1986), Director of the Cedar Creek Natural History Area (1970–1984), and Professor in the Department of Ecology and Behavioral Biology (1970–1992). From 1986–1992 he was Curator of Birds at the Bell Museum of Natural History. In 1992 he retired from the University of Minnesota and became Research Curator of Ornithology at the Barrick Museum of Natural History, University of Nevada, Las Vegas.

Arctic ornithology was the focus of David's ornithological career until he became director of the Itasca field station. Then his boreal summers became occupied with the station and he turned his research efforts to the Antarctic, expanding thereby into a bipolar career. He wrote more than 120 scientific and popular articles reporting on his widespread research efforts, and he was active in the field and in his writing and art until his final illness.

During his career at the University of Minnesota, David directed the growth of the Biology Colloquium, a forum that introduced hundreds of freshmen and sophomores to biology outside of the classroom. The Colloquium had a profound influence on many budding biologists. He had strong career advice: "Follow your heart." After all, this is what he himself had done in launching his own career in ornithology. During his 22 years in Minnesota, David made many contributions to ***The Loon***, both in articles and artwork.

David was a renowned collector, especially of eggs and nests, and his meticulously prepared specimens from remote localities are as important and enduring a legacy as his art and his publications on avian ecology and natural history. Although most knew him as a gentleman and scholar in the museum and university, those fortunate to spend time with him in the field knew where he was most at home. His ability to tune in to the birds around him was remarkable, and his nest finding skills were uncanny. His research took him to very remote places (including the North Pole), and, fittingly, he was a Fellow of the Explorers Club. Perhaps his favorite among the many recognitions received was "Parmelee Massif" in Antarctica at 70°58'S, 62°10'W, which was named in his honor.

Since 1986 both David and Jean were able to spend time in the Arctic and Antarctic, and in their working retirement after 1992 they led an active and productive life most of us would envy. He will be greatly missed. He is survived by Jean, his wife of 55 years, and their daughter and son-in-law, Helen and Stephen Bruzzone.

University of Alaska Museum, 907 Yukon Drive, Fairbanks, Alaska.

A Swallow-tailed Kite In Southern Minnesota

Cindy Krienke

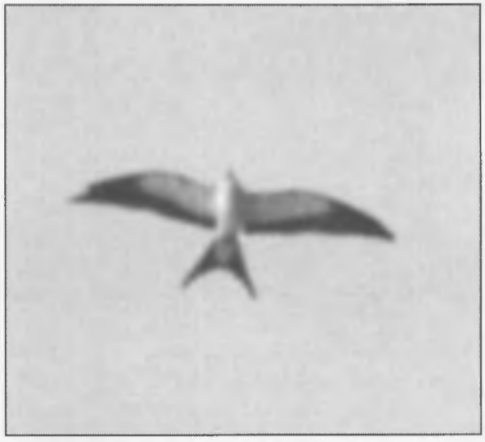
Saturday, 15 May 1999 was Minnesota's walleye opener. My husband Vern and I were walleye fishing on Lower Sakatah Lake. We had been fishing for about six hours and had only one fish to show for our efforts! It was about 3:00 P.M. and I wanted to quit and go home. I was getting a little whiny. Vern said, "Why don't you look for birds. I want to drift by here a couple more times. If I don't catch anything, we'll go home."

I always carry my binoculars and bird book. I looked around. On the north shore there were hundreds of swallows feeding. They were flying low over the water and over the trees on shore. I was trying to look at them through my binoculars when this big bird flew over us. It was huge compared to the other swallows! What in the world was that big thing? I had no idea! I didn't think there was anything like that in Minnesota.

I convinced Vern to quit fishing and take a look. It acted like a big Barn Swallow. We followed it for awhile with the boat. No need for binoculars, it was that low. I was getting dizzy looking up and watching it while rocking in the boat. I grabbed the *National Geographic Field Guide* and looked on the swallows page. Nothing. So, I thought, maybe some kind of gull or tern. There are so many of them.

Nothing. I just started flipping past the gulls, through the terns and into the kites, hawks, and eagles. There it was! A Swallow-tailed Kite! It's supposed to be in Florida. Naw, that can't be it. But, there it was again, directly over the boat. Oh brother. No one's going to believe this.

I got a little knot in the pit of my stomach. Here we were in a fishing boat three miles from Waterville by water. By the time we motor all the way into town and call Wally Swanson and get back out here, it will be gone. We watched it a couple of minutes longer. It was feeding with the swallows. Maybe it would hang around long enough for Wally to get a look at it.



Swallow-tailed Kite, 26 May 1999, Lower Sakatah Lake, Rice County. Photo by Warren Nelson.

We headed for town. A 25-h.p. motor doesn't go very fast. All the way I was thinking about what to do. Do we land the boat, go home and then call Wally. My mind was reeling.

Fortunately, there's a little gas station/campground right on the shore of the channel that flows between Lake Tetonka and Sakatah Bay. We pulled up to shore there. I ran into O'Leary's and asked if I could use the phone. I called Wally Swanson. Thank goodness he was home. I blurted out something about a Swallow-tailed Kite. I asked him to come and take

a look. I said we'd meet him by the Narrows Bridge on Lower Sakatah Lake. By the time we drove back down there, Wally was standing on the shore by the bridge and already had good looks of the bird. I was so glad the kite was still there.

Vern and I motored back to Waterville, landed the boat and went home. It seemed to have taken hours. I called some people and Wally called Ray Glassel and others. We went back down to the Narrows — by pickup this time. The kite was still there. And there it remained for the next twelve days.

The first couple of days, we watched it from the bridge. Thanks to another birder and some persistence on his part, he found the bird was visible from a gravel road north of Lower Sakatah. From that point on, the best viewing was from there. I don't remember the man's name, but you know who you are — thank you. And thank you to Wally Swanson for believing me this time. To all the other people who enjoyed the kite, a big thank you for being so nice.

It was a tremendous twelve days. We met new people and renewed some old acquaintances. Most of all it was fun, and I never once tired of watching that big bird. **511 3rd St. S., Waterville, MN 56096.**

A Swallow-tailed Kite

Wally Swanson

On 15 May 1999, after a slow morning, I was sitting in my basement. At 3:30 P.M. Cindy Krienke called to say that she had just seen a Swallow-tailed Kite at the Narrows bridge. I hung up the phone and raced down there. I should say I tried to race down there. This was the day of Waterville's citywide garage sale so going anywhere fast was impossible. While waiting to make a turn I had time to look in the *National Geographic* field guide. She must have seen a Mississippi Kite and made a mistake, but after looking in the guide you couldn't really confuse the two.

After twenty minutes I finally made the four-minute drive to the bridge. At this time nothing resembling a kite was to be seen. I walked around a few minutes when suddenly, flying over the north shore of the lake was a bird that resembled a dark raptor with a white head. At first I thought it was an Osprey, then it banked and my jaw fell open.

It showed a deeply forked tail and falcon-like wings with a notch at the tip of the primaries. When it banked the underside was mostly white. The only exception was the wing pattern which resembled a Swainson's Hawk with the lighter portion on the leading edge of the wing and darker on the trailing edge. The outer portion of the forked tail was also dark. It banked and stooped like a giant barn swallow, seeming to grab insects on the wing.

I then went home to call Ray Glassel. His wife said he was in Faribault, so I called Tom Boevers. I told him to get over here, there's a Swallow-tailed Kite here.

I went back to the bridge and Vern and Cindy were back, having ditched their boat and driven down. Tom and Dot Kiner were also there. About 15 minutes later, Tom Boevers drove up. Roughly 90 minutes later the kite appeared over the trees and we all got a good look.

The following morning I went down to the bridge at about 6:10 A.M. and people were already there. It was to be a long wait, however. As I stood on the bridge talking to Ray, he said I was a member of a very small club, as there were very few people who had seen this bird in the state in over 100 years. Just before 9:00 A.M. the club got much bigger as the kite flew out over the lake and remained in sight almost an hour. **128 S. Buchanon, Waterville, MN, 56096**.

The Historical Record of the Swallow-tailed Kite in Minnesota

Ann E. Kessen and Anthony X. Hertzel

In May 1999, dozens of Minnesota birders were treated to the sight of a Swallow-tailed Kite (*Elanoides forficatus*), soaring over Lower Sakatah Lake in western Rice County. First noticed by Cindy Krienke on 15 May (Krienke 1999), the bird was present through 27 May 1999. Though currently listed as Accidental on the Minnesota checklist (MORC 1999), few birders are aware that prior to 1900 this species was fairly common across a significant portion of Minnesota.

Early Minnesota Records

Before 1900, the Swallow-tailed Kite was known to nest throughout Florida and the southeastern coastal regions of the United States. Its range extended to the west as far as eastern Texas and to the north along major drainages of the Mississippi River and some of its tributaries (Meyer 1995). In Minnesota, the species was common from the Twin Cities area north to Mille Lacs and northwest to Itasca State Park (Coffin & Pfanmuller 1988).

The Swallow-tailed Kite was a relatively common species in Minnesota during the summer months, but there are only a few specific records in the literature. The first is from 19 July 1832 when, on an expedition to find the source of the Mississippi River, Henry R. Schoolcraft shot one at Lac Ple (now called Eighth Crow Wing Lake) in Hubbard County (Schoolcraft 1834). Prior to this, Thomas Nuttall had written that the kite's range extended northward into Minnesota where "tempted by the abundance of the fruitful valley of the Mississippi, individuals have been seen along that river as far as the Falls of St. Anthony" (Nuttall 1832).

"Swallow-tailed Hawk" drawing from Nuttall (1832).

Other than a few vague references, no further record is found until June 1870 when T. Martin Trippe reported them near Hill City, Aitkin County (Trippe 1871). He included the comment "Rather common, especially in the immediate vicinity of the Mississippi. It arrives early in

Table 1. Records of the Swallow-tailed Kite since 1900. The validity of some earlier sight records is uncertain. Only the first observation listed here was by Roberts himself; all other sight records listed here from Roberts are second-hand reports.

Date	Locality	Type of Record	Source
July 1902	Itasca State Park	sight	Roberts (1932)
22 August 1902	Jackson Co.	sight	Roberts (1932)
summer 1904	Stearns Co.	sight	Roberts (1932)
1907	Aitkin Co.	sight	Roberts (1932)
14 September 1914	Cass Co.	specimen	Roberts (1932)
20 March 1916	Hennepin Co.	sight	Roberts (1932)
18 May 1921	Sherburne Co.	sight	Roberts (1932)
29 July 1923	McLeod Co.	sight	Roberts (1932)
18 August 1949	Fillmore Co.	specimen	*The Flicker* 21:71–72
29 April 1966	Washington Co.	specimen	***The Loon*** 39:67
13 July 1974	Anoka Co.	sight	***The Loon*** 48:182–183
22 April 1976	Hubbard Co.	sight	***The Loon*** 49:181
15 May 1976	Clearwater Co.	sight	***The Loon*** 49:181
15 May 1999	Rice Co.	photograph	***The Loon*** 71:176–177

June, and remains all summer." In 1873, Philo Hatch reported that the species was "...common in the heavily timbered lands..." (Hatch 1874), and again, in 1881, that it was "often seen in the densest forests" (Hatch 1881). Thomas Roberts noted in his journals (Krosch 1991) that he saw "quite a number" of Swallow-tailed Kites on 8 July 1875 as he was travelling from Delano to Minneapolis. He also mentions observing three individuals near Lake Harriet in Minneapolis on 9 May 1879 and "three or four" near Cold Spring in Stearns County on 31 May 1881. In the first book about the birds of Minnesota (1892), Hatch judged the species to be "comparatively common."

The U.S. Biological Survey has a single Minnesota record, that from an observer in Minneapolis by the name of Cuthbert (U.S. Biological Survey 1889). The record is dated 21 May 1888 and includes the single word description "rare." This particular record does not appear in any of the Minnesota literature.

The J. F. Bell Museum of Natural History has nine Swallow-tailed Kite specimens in its collection: eight skins and one egg. The egg and three of the skins have no data. Three specimens were acquired after 1900 and are listed in Table 1. Of the remaining two, one is a female from 14 July 1886, with the location listed only as "Mille Lacs", and the other is a male from 11 May 1888 obtained in the Lake Minnetonka area.

Nesting Records

There are few confirmed breeding records, though the kite was known to have nested throughout its range in the state (Roberts 1932). On 25 May 1883, near what is now Detroit Lakes, Becker County, Foster H. Brackett collected and examined a female in breeding condition, as indicated by greatly enlarged ova (eggs) in her ovary (Brackett 1883). This bird was taken while in the company of another kite which Brackett suspected was its mate. Other specific records of nests and eggs include two additional Becker County observations in June 1886 and a 15 May 1887 record from Hennepin County (Roberts 1932). A second-hand report from George Cantwell through Charles Bendire (Bendire 1892) states that about a dozen pairs of kites were breeding around Lake Minnetonka in the early 1880s.

Current Status

Around 1900, however, the situation changed. Roberts (1932) noted that the species had "become very rare and is apparently approaching extinction in Minnesota." Indeed, he cites only eight

Table 2. Unacceptable Minnesota Swallow-tailed Kite reports since 1900. It should be noted that some of these may have been correctly identified, but the documentation was insufficient for certainty.

Date	Locality	Source
1932	Lake of the Woods Co.	MOU Files
October 1938 or 1939	Dodge Co.	MOU Files
9 October 1949	Crow Wing Co.	*The Flicker* 21:89–90
18 March 1951	Mendota	MOU Files
15 April 1951	Mendota	MOU Files
21 March 1954	Mendota	MOU Files
23 June 1955	Hennepin Co.	*The Flicker* 28:41
19 October 1957	St. Louis Co.	*The Flicker* 30:35
25 April 1961	Ramsey Co.	*The Flicker* 33:57
25 April 1961	Mendota	MOU Files
July or August 1973	St. Louis Co.	***The Loon*** 45:136
20 October 1990	Redwood Co.	MOU Files

records between 1900 and 1932 (see Table 1). This decline was not peculiar to Minnesota as Swallow-tailed Kite numbers were plummeting throughout its former range (Meyer 1995). Why?

The most likely reason appears to be human persecution. This species is a conspicuous, relatively unwary bird, and was thus quite vulnerable to the unregulated shooting that was so common at the turn of the previous century and before. It has been speculated that even in areas where it was considered "common", its original numbers were still comparatively small, and so the pressure from shooting led to a rapid decline from which its populations never recovered (Robertson 1988).

Habitat destruction has also been suggested as a reason for the species' reduced range. Swallow-tailed Kites will nest in both deciduous and coniferous forests, but they require tall nest trees near open foraging areas (Meyer 1995). Loss of habitat has certainly contributed to a decline in numbers in their current range (Meyer 1995). Coffin and Pfanmuller (1988) suggest that present habitat available in Minnesota should be sufficient to support a population of Swallow-tailed Kites.

It has also been speculated that the kite's gregarious habits may be the reason that it has not recolonized its former range. This species seems to prefer "clumped" nesting, i.e. groups of 2–5 nests approximately 75–700 meters apart (Meyer 1995). Perhaps Swallow-tailed Kites may have a lower success rate when nesting outside of such groups, and this would reduce the inclination of a single pair to nest in vacant habitat.

Recent Records

Since 1900 there have been 14 Minnesota Swallow-tailed Kite records which have been accepted by either Roberts (1932), Green and Janssen (1975), or the Minnesota Ornithological Records Committee (Table 1). Recent sight records include a 13 July 1974 observation at Cedar Creek Natural History Area in Anoka County (Maxson 1974), a record from 22 April 1976 in Itasca State Park, Hubbard County, and a 15 May 1976 record near Itasca State Park, but in Clearwater County (Parmalee 1976). These latter two observations were most likely of the same bird.

Three specimens at the Bell Museum were acquired since 1900. The first is dated 14 September 1914 from Cass County. One is from 18 August 1949 when a bird was shot by a Fillmore County resident seeking to protect his poultry from what he thought was a "chicken hawk" (Willis 1949). The museum also has a specimen of a male bird less than a year old that was found dead near Marine-on-St. Croix, Washington County on 29 April 1966 (Green 1967).

There have been five additional published records that are now considered Unacceptable as well as seven unpublished Unacceptable records (Table 2).

Where might we expect to find the next Swallow-tailed Kite in Minnesota? This bird is generally associated with water near forested areas, and this is partly related to its dietary preferences. The primary food for adults of this species is insects, including flying insects, which the bird catches with its feet while on the wing. In general, it tends to forage early and late in the day by gleaning insects from foliage, and during the middle part of the day by soaring for flying insects (Meyer 1995). Lowland forested areas of rivers, especially the Minnesota and Mississippi, as well as some of our forested lake areas, are the likely places where this species might be seen. Given its Accidental status in Minnesota, however, when or if another sighting may occur is impossible to predict.

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Two Fatal Peregrine Falcon Territorial Fights

Harrison B. Tordoff and Patrick T. Redig

Peregrine Falcon (*Falco peregrinus*) breeding populations are limited typically by the number of suitable breeding territories, each of which must have a satisfactory nesting site which usually is a ledge on a cliff, or man-made substitute such as a tall building, smokestack, or bridge. Healthy, "saturated" Peregrine populations have a number of adult non-breeding "floaters" nearby that challenge territorial birds and will fill vacancies often within hours or days (Ratcliffe, D. A. 1980. "The Peregrine Falcon", Buteo Books, Vermillion SD, pp. 273–274). Competition among Peregrines for breeding territories is therefore intense and territories may be defended year around. Fights over territories sometimes result in death or injury because Peregrines are capable of killing birds their own size. Here we report on two fatal territorial fights between female Peregrines in Minneapolis, Hennepin County, in 1999, where we had an unusual opportunity to know the histories of the individual birds involved, to witness the fight in one case, and to examine the bodies of the two birds killed.

First, some background. Although fights for territories almost certainly occur in all "saturated" Peregrine populations and probably also in unsaturated recovering populations, we think they are more frequent and perhaps more intense in the recently restored Midwestern population for the following reason. The captive-bred Peregrine Falcons released in the Midwest (Minnesota, Wisconsin, Michigan, South Dakota, Nebraska, Iowa, Illinois, Oklahoma, Kansas, Missouri, Kentucky, Ontario, and Manatoba) to replace the population eliminated by DDT included a mixture of individuals, some descended from migratory subspecies and some from non-migratory subspecies. Today, despite much mixing of these genetic stocks by interbreeding, the migratory behavior of each individual seems to be influenced by its ancestry; some birds migrating each year, some migrating as juveniles but resident as adults, and others resident year around (Tordoff *et al.*, submitted to *Wilson Bulletin*). In contrast, in natural populations of birds, most individuals have similar migratory behavior, coming and going on roughly the same schedule. In the new Midwestern Peregrine population, many pairs live year around in cities where adequate food is available in winter, suggesting that energetically costly migration is maladaptive for urban birds.

Possession of a suitable territory is the key to Peregrine breeding success. Adult urban Peregrines that migrate not only must pay the energetic costs and increased chance of accidents on migration, but also run a high risk of having their territories taken over in their absence (Tordoff *et al.*, op. cit.). Usually male Peregrines defend against other males, females against females (Ratcliffe, op. cit., p. 65; R. W. Nelson, 1977, Behavioral ecology of coastal Peregrines (*Falco peregrinus pealei*). Ph.D. dissertation, Univ. Calgary, Calgary, Alberta). Fights between returning migrants and residents that have usurped their territories are often intense, both birds having reason to feel that they own the territory. Even where their territorial ownership is not challenged, some migrating Peregrines

return too late in spring to attract a mate. Midwestern Peregrines descended from migratory ancestors are most likely to undertake long migrations and to return late in spring (Tordoff *et al.*, loc. cit.).

Multifoods Tower Fight

The first fight took place on March 17, 1999, at the Multifoods Tower, Minneapolis. The nest box is on the 50th floor, southeast side. Three Peregrines were involved at this site:

- Female Lori X/*V (color band designation), fledged wild in 1996 at NSP Black Dog plant, Eagan MN, spent summer of 1997 at Mayo Clinic, Rochester Minnesota, did not lay eggs; spent summer of 1998 at Multifoods Tower, again did not lay eggs, and remained through the winter.
- Female V/U, five-year-old half-sister of Lori, fledged wild at NSP Black Dog plant in 1994. Her whereabouts in the succeeding five years are unknown.
- The resident male, Will 04Y, is 12 years old. He was hacked (reared in captivity, released to the wild) at the Mayo Clinic in 1987 and has nested at the Multifoods Tower since 1989. He remains year around. He seems to remain uninvolved in territorial disputes among females, pairing with whichever female prevails. His 1999 mate, V/U, is his fourth. His first mate, female MF-1, was killed in 1995 when nine years old by his second mate, female Marla 81V. Marla disappeared in late March 1998, cause unknown, and was quickly replaced by Lori.

On 17 March 1999, a very windy day, a Peregrine was seen by a citizen to fall to the ground after striking the side of the IDS tower, a few hundred feet from the Multifoods Tower. The dead bird, Lori X/*V, was saved by Tom Cowhey, IDS management, for examination at The Raptor Center, University of Minnesota. The nest box was not checked on 17, 18, or 19 March, but on 20 March, a new female, V/U, Lori's older half-sibling, was in the Multifoods nest box, where she subsequently nested successfully, fledging four young in late June.

Necropsy of Lori (by Redig) revealed that she had indeed been killed by the strike against the building, but that the collision itself was almost certainly an outcome of a fight with another Peregrine. Lori was in excellent overall condition, plumage sleek and clean, pectoral muscles broad and well-developed, weight 1150 grams. She had adequate fat stores and no intestinal parasites were observed. Massive internal bleeding and a broken bill tip were obviously caused by the collision, but in addition Lori had multiple fresh puncture wounds on her legs and toes and a three-cornered fresh laceration on her back that measured 3 cm on edge, characteristic features of fights between Peregrines. We concluded that she was in a fight with another Peregrine, presumably her half-sister V/U, was injured and either careened spontaneously or was driven into the side of the IDS building while dodging the other falcon.

Lori's failure to lay eggs in 1998 at two years of age had puzzled us. The necropsy disclosed that she had a prolapsed oviduct, protruding about 3 cm. beyond the cloaca. Her ovary was normal, with several ova enlarged enough to suggest that ovulation might have occurred in a week or so. However, the prolapsed oviduct would surely have prevented effective copulation and probably also egg-laying.

Colonnade Fight

The second territorial fight was at the Colonnade building, I-394 and Highway 100 (four miles west of the Multifoods Tower), Minneapolis, Minnesota, on 7 April 1999. The nest box is on the 15th floor, northeast corner, viewable from inside at arm's length through a lightly tinted window wall.

For three years this site was occupied by a female Peregrine named Elma (her predecessor was Marla 81V, before her takeover of the Multifoods Tower) and her mate Kato 31T, now ten years old. Elma was an unbanded adult when

brought injured to The Raptor Center in autumn, 1995. She was released that same autumn at Fort Snelling State Park, about ten miles southeast of the Colonnade. Kato was fledged from the North Central Life building in St. Paul in 1989. Kato is resident year around, but each winter Elma has been gone for about five months, returning usually in late March. In spring 1997 and 1998, new females appeared at the Colonnade in February or early March. They were quickly evicted by Elma when she returned.

Early in the winter of 1998–99, a new female, Mendota *4/C, appeared at the Colonnade. She spent considerable time at the nest ledge, interacting regularly with Kato. Mendota is two years old, fledged from the Mendota Bridge, Fort Snelling State Park.

In early March, copulation began between Kato and Mendota and eggs were laid on 2 and 4 April. On 7 April, when Mendota's third egg was due, Elma appeared at the nest ledge at 8:30 A.M. when Mendota was in the nest box. There had been no prior evidence of Elma in the area; we suspect she had just arrived. Immediately Mendota left the box and the two birds grappled on the nest ledge for a few minutes, before tumbling off, still clutching each other, to a gravel roof 13 floors below the nest ledge, according to Tom Christianson, whose office is adjacent to the nest ledge. He phoned The Raptor Center and Tordoff arrived at the Colonnade at 9:45 A.M.

At this time the two falcons were still struggling on the gravel roof, an hour and 15 minutes after the fight had begun. For the next 35 minutes, the two females continued their battle, biting and each clutching the other continuously on their feet, upper parts of their legs, or lower breast. They did not have their talons continuously interlocked. They held their wings and tail spread, legs extended, sometimes facing each other sitting upright on their tails, sometimes falling to their sides, sometimes rolling over, first one then the other on top. Each bird appeared to try to hold the other at leg's length by grasping upper legs and body, while bill-fencing and attempting to bite. Up to a minute would pass with the birds moving little as they clutched and glared at each other, then a burst of intermittent activity would take place for a few minutes.

Elma is buffy below, Mendota is white, making it easy to tell them apart from our fifteenth floor vantage. Neither seemed to be winning until about 10:15, when Mendota rolled Elma onto her back and bit repeatedly at Elma's face. Elma was by then very bloody on her face, mouth, and upper breast.

At 10:20, with no signal apparent to us, the two birds suddenly released each other and Mendota stepped back about a foot, still facing Elma, whose bloody head hung low. After about a minute, Mendota jumped to a nearby low parapet and for the next ten minutes walked about on the parapet and a nearby ventilator, never getting more than about ten feet away from Elma, who remained almost motionless on the gravel, upright with wings partly spread and drooping, head lowered.

As Mendota moved about, body and head held horizontal and wings and tail closed, Elma moved her head enough to watch her. Finally, at 10:30 Mendota flew from the lower roof, made three circles about 100 yards in diameter, gaining altitude, and landed on the 15th floor nest ledge, where within seconds Kato, who had joined her in the air, flew in and attempted copulation, unsuccessfully. Mendota remained on the ledge just outside the nest box for about three hours, showing no obvious wounds but moving very little. She had blood on her face and breast which was probably Elma's. She appeared exhausted and somewhat disheveled, but gradually seemed to recover. Early in the afternoon, Kato and Mendota copulated apparently successfully.

Elma remained motionless on the gravel roof below until 10:40, when she abruptly departed, flying low to the southeast and out of sight behind a building across I-394.

The Peregrines involved in these incidents were from of a total of ten pairs nesting or attempting to nest in the Twin Cities area in 1999. Photo by Patrick T. Redig.

Through the fight, Kato remained on the nest ledge, seeming agitated at first as he watched the females. As time went on, he went into the box, scraped in the gravel, moving the two eggs a few inches, apparently displacement behavior. Finally he perched outside the box, where he could see the combatants below him.

A small crowd of office workers watched the fight from the fifteenth floor. They have easy access to close daily viewing of the Colonnade nest box and were surprised, as we were, at the intensity of the fight. At Kato's attempted copulation when the battered Mendota arrived at the nest ledge, someone said, "That's the last thing she needs right now."

The fight lasted two hours. The two females were continuously locked together except for the last ten minutes. The intensity and duration of the fight were, we speculate, increased by each female's perception of ownership of the site; Elma from her three years of nesting there, Mendota from her current possession and ongoing nesting. The outcome seemed determined by a combination of endurance and will. Neither bird seemed to have any physical advantage as the fight progressed, until the final few minutes when both must have been approaching exhaustion.

In other territorial Peregrine fights where we could determine the identity of the contestants, an advantage seems to rest with the older bird, if there is a difference in age. Also, the owner from a previous year usually prevails, particularly if the new bird has not been in residence for long. In this case, Mendota was both younger and the usurper, but probably gained motivation by having been present all winter and having two eggs already in the nest box.

The departure of vanquished Elma seemed to signal the end of the encounter. However, the next morning, 8 April at 11:00, Mendota was at the nest ledge, paying no attention to the two eggs in the box. At 11:15, Elma suddenly flew around a corner to the nest ledge, carrying a plucked half-eaten grackle (had she been able to capture it herself, in her poor condition? found it cached? or been presented with it by Kato?). Mendota left the ledge immediately and flew out of sight. Elma remained, eating more of the grackle. After leaving briefly to cache the grackle, Elma remained in the nest box until 1:13 P.M., when she left with Mendota still not present. Elma's unchallenged displacement of Mendota this day, even though only for two hours, suggests that our interpretation of the fight as a victory for Mendota may be an over-simplification. Mendota's reluctance to fight again suggests that Elma may have won the psychological aspect of the battle even while losing physically.

Elma was still very bloody on her face, throat, and upper chest, appeared to have a collapsed left eye, and her plumage was disheveled. The male, Kato, arrived a minute after Elma departed. He settled on the two eggs for about ten minutes. At this time, neither female seemed to have any interest in the eggs. However, Mendota returned to the nest

box on 9 April and laid a third egg. The eggs were not incubated by Mendota on 10 or 11 April but Kato incubated them for short periods several times each day. On the morning of 12 April, Mendota began incubating normally. The first two eggs had been incubated intermittently and only by the male for over a week before regular incubation by the female began. One egg hatched on 14 May, probably the last one laid. The single youngster fledged.

On 10 April, Elma was found in a parking lot about a quarter of a mile from the Colonnade, alive but unable to fly. She was taken to The Raptor Center where she was euthanized because of the severity of her injuries. Her left eye had been punctured and was collapsed. There were bite wounds on both mandibles, the roof of her mouth was punctured on the left side, and blood and debris was packed into the sinus cavity below the eye. Both legs contained numerous puncture wounds and lacerations from the feathered portion to the toes, but the most serious damage was the result of bites to the face. The fight cost not only the life of Elma but also the likelihood of two or three more young in the brood.

When necropsied (by Redig) Elma was found to have arrived at the Colonnade in poor condition; this likely contributed to the outcome of the fight. Two days after the fight, she weighed only 750 grams (normal for a female Peregrine is 950 grams or more), had decreased mass of pectoral muscle, was devoid of body fat, and had only a trace of fat remaining in the coronary band of the heart, the last fat depot to be depleted on the body of a bird undergoing nutritional stress. Her intestines were inflamed and contained numerous flukes distributed through the entire length. Three large tapeworms were also recovered. This was the heaviest load of intestinal parasites seen in any of the 12 wild Peregrines that have been necropsied at The Raptor Center from 1993 to the present. No ovarian follicles were close to ovulation, nor was the rest of her reproductive tract yet developed to the point where egg-production could occur. Clearly, Elma was in poor condition even before the fight but nevertheless on her arrival she was highly motivated to reclaim her nesting territory.

Several other severe fights between Peregrines were reported in the Midwest in 1999. Two adult falcons, a three-year-old male and a two-year-old female were killed at NSP Riverside in Minneapolis, the resident female was killed in a territory takeover at WEPCO Oak Creek power plant in Milwaukee WI, and a severe but non-fatal fight was seen at Terminal Tower, Cleveland OH, on 17 March where the returning female ousted a new female, at least the second such incident there. The two battles reported in this paper are therefore not unusual, but such fights usually go unseen and unreported in detail (but see A. G. Nye, Jr., 1954, *Falconry News and Notes* 1(4): 9–12).

Acknowledgments

We thank Rich Kaiser, Tom Christianson, and other employees of Farm Credit Leasing, Inc., for keeping us informed about the Colonnade Peregrines' activity. We are also grateful to the management of the Colonnade building for their tolerance of the falcons and for providing access to the nest for banding the chicks each year. We thank Tom Cowhey, IDS Management, for saving the dead falcon from the Multifoods territory and for notifying us. The Peregrine fight in Wisconsin was reported by Greg Septon and the fight in Ohio by Sara Jean Peters. John Tradewell and Robert Anderson reported the two falcons killed at NSP Riverside in Minnesota. R. Wayne Nelson provided valuable general information on Peregrine fights and helpful comments on this paper.

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The Spring Season
(1 March to 31 May 1999)

Peder H. Svingen

Spring migration always brings invigorating renewal to our senses, through the vivid excitement of vibrant color and colorful birdsong. But Spring 1999 was absolutely intoxicating! Observers feasted on a spectacular cornucopia of no fewer than eight Casual and six Accidental species. The addition of 304 Regulars produced a grand total of 318 species in Minnesota this season. A stunningly cooperative ***Swallow-tailed Kite*** *was most popular among birders, but the unprecedented influx of* ***Summer Tanagers*** *and other "southern" passerines was ornithologically most interesting.*

Lake Superior produced an impressive (by Minnesota standards) peak of 12 **Red-throated Loons** in late May, but the peak count of **Horned Grebes** was paltry compared to the 1970s. Horned Grebe has been virtually extirpated as a breeding species in the state and systematic surveys are now needed to determine their true status in migration. For the second consecutive spring, good numbers of **Snowy Egrets** were reported. Two of this season's three **Little Blue Herons** were unexpectedly found in the northwest region.

For the sixth consecutive spring, **Cattle Egrets** remained scarce compared to the total of 105+ in 1993. A pair of **White-faced Ibis** in Dakota County was conveniently located in front of a local market for four days in early May.

Record high numbers of the **Ross's Goose** migrated through western Minnesota this spring, a bonanza for birders but transmogrifying for the tundra. Even though the **Trumpeter Swan** has been designated a Regular species as of 1 January 1999, observers are encouraged to report exact locations, number of adults and young, and all banding data. Field identification of **Trumpeter** vs. **Tundra Swan** remains vexing and details are requested for swans seen at unexpectedly early or late dates, especially for singles or small groups. Two unusually warm winters in a row has certainly skewed our concept of "normal" waterfowl migration. But nothing can skew more than that first state record **Smew**!

Who among us has ever dreamed of discovering a **Swallow-tailed Kite** while fishing for walleye in Minnesota? Many dozens of people eventually saw this beautiful kite, thanks to Cindy and Vern Krienke. Frank Nicoletti and Dave Carman conducted the third annual spring census of raptor migration at Enger Tower in Duluth (see Table 1); highlights included an unexpected **Swainson's Hawk** and good numbers of **Golden Eagles** among the total of 6,624 raptors for the season (7,795 last spring).

Like the last two springs, there were only two reports of the **Common Moorhen**. Shorebird migration in most regions was relatively late and many species were reported in low numbers. The only **Piping Plovers** were in Duluth, including a pair on Hearding Island for four days that exhibited nesting behavior, but hopes were dashed when the birds disappeared after the first of June. The number of **American Avocets** was disappointing, but a good flight of **Hudsonian Godwits** was noted. The peak count (159) of **Wilson's Phalaropes** in northwest Minnesota was lower than usual. Most unexpected was the male **Red Phalarope** discovered by a Minnesota Birding Weekends group on Lake Superior. This is only the second time

Species	Totals	Peak date	Peak#	Occurrence
Turkey Vulture	631	4/16	213	3/29–5/07
Osprey	67	4/24	13	4/08–5/21
Bald Eagle	1564	3/16	229	3/01–5/21
Northern Harrier	24	4/7–8	4	3/27–5/07
Sharp-shinned Hawk	1229	4/14	105	3/27–5/22
Cooper's Hawk	15	4/07	3	3/25–5/18
Northern Goshawk	1	3/20	1	
Red-shouldered Hawk	0			
Broad-winged Hawk	1221	5/03	157	4/14–5/22
Swainson's Hawk	1	4/07	1	
Red-tailed Hawk	1741	4/08	543	3/02–5/21
Rough-legged Hawk	81	3/27	24	3/03–5/21
Golden Eagle	40	3/18	10	3/08–4/20
American Kestrel	30	4/24	9	4/07–5/03
Merlin	8	4/14	3	3/22–5/04
Peregrine Falcon	5	N/A	1	3/26–5/09

Table1. Spring 1999 census of raptor migration at Enger Tower in Duluth, St. Louis County. Data courtesy of Frank Nicoletti and Dave Carman.

this Casual species has been found in spring.

Another spring record of a **jaeger** in Duluth! Although expected in fall, jaegers have now been reported in eight out of the past ten spring migrations. For the first time since 1993, a **Little Gull** was found in Duluth during spring migration. For the second consecutive spring, an adult **Black-headed Gull** was found in south-central Jackson County. Gull migration was uneventful compared to last spring. Relatively few **Thayer's Gulls** and no **Iceland Gulls** were found. The dark-backed gull species were also scarce. An **Arctic Tern** was seen in Duluth, where this Accidental species has occurred during six previous migrations.

Only one year ago, Minnesota's first **Eurasian Collared-Dove** was found in Big Stone County; this season's record is the state's fifth! **Long-eared Owls** were found in good numbers and after two consecutive years of decline during spring migration, no fewer than 45 **Short-eared Owls** were reported. Nocturnal surveys for calling **Boreal Owls** in northeastern Minnesota found 15 singing males (10 last spring).

Two **Scissor-tailed Flycatchers** were more than expected, but equalled the number found last spring. Reports of the **Loggerhead Shrike** appear stable over the past few spring migrations. The three records of **White-eyed Vireo** were unprecendented for one season and stay tuned for summer! Unlike most occurrences in Minnesota, the **Rock Wren** in Houston County was seen by many observers and stayed for more than a day, perhaps because it found itself in a rock quarry. For the third consecutive spring, no fewer than seven **Northern Mockingbirds** were discovered.

In contrast to relatively late arrivals among the flycatchers, wrens, bluebirds, and thrushes, **warblers** as a group arrived earlier than usual and in good numbers. Steve Carlson examined 20 years of migration data from Hennepin County and found that he observed a greater variety of warblers during the first few days of May than ever before (including 17 species on 5/4). Other peaks included 20 species in Jackson County on 5/13 (PS), 19 species in a single Goodhue County location on 5/13 (DZ), 20+ species in Kandiyohi County on 5/15 (RJF), and 22

species in Anoka County on 5/15 (DZ). Dan Floren scoured Meeker County this spring and found so many first county records, especially among the warblers, that his well-documented reports were dubbed "Another First by Floren."

Highlights among the many interesting warbler reports included the pair of **Yellow-throated Warblers** at Sibley State Park, where Minnesota's first nest was found on 29 May 1997 (***The Loon*** 70:230–232). There were no sightings here in 1998, but one or more had been present in the park for four consecutive years between 1994 and 1997. The **Prothonotary Warbler** was reported in 13 counties as far north as Kanabec. An amazing five **Worm-eating Warblers** were found, three in the southeast region where most expected, plus two in Kandiyohi County. No fewer than five **Kentucky Warblers** were discovered, including first county records for Jackson and Kandiyohi. **Hooded Warblers** were also reported more frequently than usual and even showed up in two North Shore locations! One additional species sometimes considered a "southern" warbler, the **Louisiana Waterthrush**, was reported within range but its numbers were apparently up. As outlined by Karl Bardon elsewhere in this issue, increased numbers of these warblers may have been associated with the unprecedented influx of **Summer Tanagers** into Minnesota.

All records of the **Western Tanager** still require documentation for publication in the seasonal report; two of this spring's three reports had details. Another **Field Sparrow** was found along the North Shore (there were two such records last spring) and **Grasshopper Sparrows** were located in Duluth and Grand Marais. Tom Boevers not only found the first **Henslow's Sparrow** for Rice County, but went on to find them in another Rice County location! The initial discovery was at Faribault WMA, where follow-up visits found up to eight birds. Perhaps this will prove to be a reliable location for this species in Minnesota.

For the first time in many years, this migration report was prepared by one individual rather than the usual team of compilers. It is hoped that this approach will provide more consistency within the report itself, and more continuity with the winter and summer seasons. The data are also presented with an emphasis on peak numbers and timing of peak migration. As the data are compiled, the earliest and latest dates for this season are compared to recent median arrival and departure dates. Unusual dates will still be published in the seasonal report and will generally be accompanied by additional migration dates and/or interpretive data, in order to place these dates in perspective.

Remarks such as "earlier than usual" or "arrived on time" in the species accounts refer to comparisons with the recent median arrival or departure dates for the past 13 years at this season. These data were calculated by Paul Budde from early and late dates compiled by Bob Janssen and Paul. The earliest and latest dates for each species during every spring and fall migration will be maintained in a database, and the median arrival and departure dates will eventually be based on 20 or more years of migration, rather than the most recent 13 years. There are tentative plans to periodically publish median dates, extreme dates, and annual arrival and departure dates in an occasional paper for future research purposes. Comments on these changes to the format and focus of this report are most welcome.

Unconfirmed and Undocumented Reports: Clark's Grebe in Traverse County, several Mississippi Kites, Whooping Crane in Kandiyohi County, Rufous Hummingbird in Ramsey County, Western Tanager in Crow Wing County, Spotted Towhee in Rice County. This section does not include records found Unacceptable by the Minnesota Ornithological Records Committee.

Temperature and Precipitation Summary: Temperatures statewide were two to four degrees above the long-term average for all three months. March was especially warm in the northern regions,

where it was between four and six degrees above normal. These regions continued to be at least two degrees warmer than normal throughout the remainder of the season. The southeast region was about three degrees warmer than normal, during all three months.

Statewide, precipitaion was close to average during March and April, except for a few wet spots. The central regions received the most precipitation during March. The southern regions, especially the south-central (3.76 inches above normal) and the southeast (2.85 inches above normal) were the only wet areas in April. The month of May was significantly wetter than usual in all regions except the northeast, west-central, and southwest. This was especially true for the north-central (3.15 inches above normal) and east-central (3.35 inches above normal) regions.

Acknowledgments: Many thanks to Dave Benson and Wally Swanson for their help as compilers of "The Season" over the past few years. Frank Nicoletti and Dave Carman contributed data from their spring census of raptors at Enger Tower in Duluth. Kim Eckert and Anthony Hertzel summarized reports called in to the MOU "hotlines" in Duluth and the Twin Cities, respectively. I would like to thank and acknowledge Karl Bardon in his new role as co-editor of "The Season." His review and commentary greatly improved this spring's report.

With deep regret we note that this represents the final season for Eugene Ford and Ray Glassel, both of whom died during the summer of 1999. Their contributions will be greatly missed.

2602 E. 4th St., Duluth, MN 55812.

KEY TO SEASONAL REPORTS

1. Species listed in upper case **(LEAST TERN)** indicate a Casual or Accidental occurrence in the state.
2. Dates listed in bold **(10/9)** indicate an occurrence either earlier, later or within the earliest or latest dates on file.
3. Counties listed in bold **(Aitkin)** indicate an unusual occurrence for that county.
4. Counties listed in underline **(Aitkin)** indicate a first county record.
5. Counties listed in italics (*Aitkin*) indicate a first county breeding record.
6. Brackets [ ] indicate a species for which there is reasonable doubt as to its origin or wildness.

The Season publishes reports 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.

Loons to Vultures

Red-throated Loon
All reports from Duluth: 5/16–17 (max. 5) SWo, PS, 5/29 (**12**) KE, MBW.

Common Loon
Arrived by the end of March as usual. Early north 3/27 Morrison WB was the same date as the first arrivals in the southeast region. Peak count 4/16 St. Louis (39 in Duluth) FN.

Pied-billed Grebe
South arrivals were about a week late, with only one report before mid-March: 3/6 Olmsted CH. Early north 3/23 Crow Wing PP, 3/27 Morrison WB, 3/29 Otter Tail KKW.

Horned Grebe
Arrived south and north at least one

week later than usual. No March reports south, where the recent median arrival date is 3/25; the earliest this year was 4/1 Hennepin ABo, SC. Early north 4/3 Mille Lacs KB, 4/11 Douglas NWi. Late south 4/28 Dakota DBS, 4/29 Hennepin SC. Late north 5/19 Kittson AH, PS, 5/23 St. Louis ABo. Peak count on Lake Superior 4/14 St. Louis (463 in Duluth) KB.

Red-necked Grebe
Arrived on time both south (4/1 Hennepin KO) and north (4/8 Roseau and Koochiching KB) during early April. Peak count 4/12 St. Louis (35 in Duluth) JN.

Eared Grebe
Fewer reports than usual, especially throughout the western regions. Early south **4/3** Yellow Medicine RJ, 4/11 Mower RRK. Unusual reports 5/1 **Pine** BBr, 5/29 **St. Louis** (Park Point in Duluth) RJF.

Western Grebe
Fewer reports than usual, especially in the northwest. Early south 4/13 Hennepin SC and Nicollet MF, 4/18 Big Stone SDM. Eleven were counted 5/30 on Diamond L., Hennepin Co. SC.

Clark's Grebe
No documented reports.

American White Pelican
Reported 3/1 Freeborn ABa, where this species often overwinters in small numbers. Generally arrived on time both south and north. Early south 3/28 Lac Qui Parle ABo, 3/30 Faribault KB and Jackson MJC. Early north 4/1 Douglas KB, 4/10 Morrison WB. Unusual report 4/18 St. Louis (7 at Enger Tower in Duluth) FN. Peak count 4/24 on Marsh L. (2,000) FL.

Double-crested Cormorant
Many south reports at the end of March (earliest 3/20 Dakota KB), later than usual. Early north 4/2 Morrison WB, 4/7 in three different counties. Also see winter report.

American Bittern
Arrived seven to ten days later than usual throughout the state, except for April reports in Aitkin Co. and in the northeast region. Early south 4/23 Kandiyohi RJF, 4/24 Hennepin SC and Lac Qui Parle NWi. Early north 4/16 Carlton LW, 4/24 St. Louis SS, 4/27 Aitkin WN.

Least Bittern
Reported from three locations in Hennepin, plus Jackson, Kandiyohi, Freeborn, Wabasha. One was earlier than usual 5/9 Hennepin (Wood L.) AH, PH, PS, and two were calling from a marsh north of Spirit L., Jackson Co. during the late afternoon on 5/13 (PS). No north reports.

Great Blue Heron
Early south 3/5 Rice TBo, 3/6 Dakota DBS; also see winter report. Many north reports during the last week of March (earliest 3/24 Douglas SWa).

Great Egret
Many south reports during the last four days of March (earliest 3/27 in Lyon, Meeker, Hennepin, Dakota). Arrived north slightly later than usual, except for **3/23** Douglas SDM. Peak count 4/7 Grant (100+ at Pelican L.) KB. Only report from the northwest region: 5/20 Clay (1) CN. Unusual location 5/12 St. Louis (Duluth) RRS.

Snowy Egret
All reports: 5/2–9 Kandiyohi (3–4) RJF, 5/2 Anoka (Carlos Avery WMA) KL, AH, 5/7–30 Ramsey (max. 3, Pigs Eye L.) PA, TN *et al.*, 5/8 **Waseca** (near Janesville) RG, 5/15 Dakota (190th/Biscayne Ave.) TT.

Little Blue Heron
All reports: **4/18 Clay** (immature near Hitterdal, earliest north date on record) JNo, 5/16 Hennepin (near Fletcher) SC, 5/22+ **Marshall** (Agassiz NWR) mob.

Cattle Egret
All south reports: 4/23 Meeker (Grove City) DF, 4/24 Lac Qui Parle (number?) MF, 5/6 Dakota (Mendota Heights) TT, 5/

7 Houston (4) FL, 5/8 Kandiyohi (2) RJF, 5/11 Cottonwood (Bingham) BBo, 5/20 Olmsted (5) CBe, 5/21 Dakota (3 along Hwy 55) *fide* AH, 5/21 Lyon (Sham L.) AH, PS, 5/28 Meeker (Darwin) DF, 5/28 Cottonwood (6 near Swan L.) ED. Only north report: **4/15–27** St. Louis (Hoyt Lakes) NJ, AE. All reports were singles unless indicated otherwise.

Green Heron
Reported from 33 south and 12 north counties. Arrived south during the last week of April, about a week later than usual (earliest 4/22 McLeod RH, 4/23 Cottonwood ED). Early north 5/4 Otter Tail DST, 5/7 Cass DJo.

Black-crowned Night-Heron
Reported from only nine counties. No March reports south, where the recent median arrival date is 3/29. Early south 4/2 Hennepin SC. Early north **3/30** (second earliest date north) Aitkin SDM, 4/7 Otter Tail SDM, DST.

Yellow-crowned Night-Heron
No reports.

WHITE-FACED IBIS
Only report: 5/5–8 Dakota (2) mob. Although seen by dozens of observers, the only documentation for this Casual species was photographic (AH).

Turkey Vulture
Arrived south two weeks later than usual, except for 3/7 Houston FL (recent median south arrival date 3/10). Early north 3/28 Aitkin WN, 4/3 Otter Tail KKW, 4/4 Carlton LW.

Waterfowl

Greater White-fronted Goose
Reported from all nine regions. Early south 3/1 and 3/3 Cottonwood ED, 3/14 Rice JL; also see winter report. Early north **3/21** Otter Tail SDM, 3/27–28 Douglas (15) SWa. First county record 4/20 **Cass** (40) MRN. No unusual late dates except 5/19 Kittson AH, PS, 5/22–23 **St. Louis** mob. Peak count lower than last spring: 3/27 Freeborn (300) PJ.

Snow Goose
See winter report for February records in Ramsey and Wright. Many south reports during mid-March. Early north 3/21 Otter Tail SDM, 3/27 Douglas SWa. Late migrants 5/20–24 St. Louis (2) mob. Peak counts 3/20 Nobles (1,500) and Jackson (1,800) PJ, 3/23 Jackson (2,000+) RJ, 4/8 Lincoln (3,310) RgS.

Ross's Goose
Most reports ever for Minnesota. Reported from a total of 19 counties (***The Loon*** 71:223–228). Early south **3/11** Washington KB, **3/17** Jackson KB, **3/19** Meeker DF. Early north 3/31 **Grant** and **Otter Tail** SDM, 4/1–21 **Douglas** KB, SDM, 4/2 Otter Tail (18–20) SDM. Additional first county records 3/27 **Freeborn** PJ, DN, 3/29–4/1 **Ramsey** mob, RJ, 4/4 **Wilkin** (**28–30**) SDM, 4/10–17 **Isanti** KB *et al.*, 4/19–26 **Polk** mob. Record high counts 3/20 Nobles (**50**) PJ, 4/3 Lincoln (**70**) PJ, DN.

Canada Goose
Reported throughout the state.

Mute Swan
All reports: 3/20–26 Hennepin (L. Minnetonka) *fide* AH, 3/24 Rice (wild?) TBo, 4/19+ Hennepin (Old Cedar Ave.) mob, 4/20 Rice (Cannon R.) FKS, 5/31 Rice (location?) TBo.

Trumpeter Swan
Reported from 21 south and 11 north counties. All nine regions had at least one record, but reports were concentrated from the south-central through the north-central region, plus all but two counties in the east-central region. Eighteen of these were technically first county records, following the recent change in this species' status (***The Loon*** 71:36–39). See winter report for early migrants.

Tundra Swan
Arrived south about one week later than

usual; first migrants 3/19 Houston DN, 3/20 Hennepin SC. Early north 3/18 Carlton LW, 3/27 Douglas SWa. Unusual numbers lingered in the Duluth area during late March and April. Peak count 4/19 Aitkin (4,000) WN. Late north 5/22 Clay SDM, **5/30** Polk ABo.

Wood Duck
Reported throughout the state. See winter report for early migrants. Peak count 3/30 Todd (270) JSK, SDu.

Gadwall
See winter report for early migrants south and north. Numerous south reports during early March.

American Wigeon
See winter report for early south migrants. Early north **3/13** Clay RO, 3/20 Grant KKW, 3/27 Aitkin WN and Douglas SWa, KKW.

American Black Duck
Overwintered south and north. Late south 5/15 Carver AH, PH, PS, 5/29 Hennepin SC, **5/31** Dakota SWe.

Mallard
Reported throughout the state.

Blue-winged Teal
Early south 3/17 Jackson KB, 3/19 Faribault MF. Early north **3/21** (earliest north date) Aitkin WN, 3/28 Wadena PBi. Peak count 4/18 Mower (77) RRK.

Cinnamon Teal
No reports for the second consecutive spring.

Northern Shoveler
Early south 3/5 Rice TBo, followed by many reports after mid-March. Early north **3/13** (second earliest north date) Clay (1) RO, 3/27 in three different counties.

Northern Pintail
Early south 3/7 Hennepin DN and Rice JL, but see winter report. Early north 3/21 Otter Tail SDM, 3/27 Douglas SWa and Becker DJo.

Greater Scaup, mid-March 1999, Lake Rebecca, Dakota County. Photo by Karl Bardon.

Green-winged Teal
Overwintered in Dakota PJ; first migrants 3/6 Houston JSt. Early north dates were very close to the recent median arrival (3/28). Peak count 4/15 Meeker (1,000) DF.

Canvasback
See winter report regarding February reports in the Twin Cities; also reported 3/7 Rice JL. Except for 3/25 Grant KKW and 3/27 Douglas SWa, arrivals north were at least one week later than the recent median date (3/28). Peak count 3/22 Houston (20,000 at Reno, most were in Wisconsin) KB.

Redhead
See winter report for early south migrants. Early north 3/20 Grant KKW, 3/27 Douglas SWa.

Ring-necked Duck
See winter report for early migrants and overwintering. Many north reports 3/20–28, with peak migration 4/1–10 in Cass MRN. Peak count 3/28 Anoka (1,000 at Carlos Avery WMA) KB.

Greater Scaup
More reports than usual. See winter re-

port for February reports in Dakota and Goodhue counties, where the first spring migrants apparently arrived 3/13 KB, FSK, and 3/15 KB, respectively. Only north report before April was 3/31 Beltrami DJo; the recent median arrival date north is 3/20. Peak migration 4/14 St. Louis (**3,000** off Park Point in Duluth) KB, record high count. Late south **5/15** Carver AH, PH, PS, **5/22** (second latest south date) McLeod TT. Late north 5/29 Cook DN, 5/30 Clearwater ABo; also see summer report.

Lesser Scaup
See winter report for early migrants and overwintering. Peak count 3/22 Houston (2,000 at Reno, most were in Wisconsin) KB.

Harlequin Duck
No reports.

Surf Scoter
All reports: 5/7–22 St. Louis (max. 4) mob.

White-winged Scoter
All reports: 5/23 St. Louis (1) ABo, 5/30 Cook MH.

Black Scoter
All reports: 5/3 St. Louis (1) JN, 5/21 **Koochiching** (pair on Nett L.) RJ.

Oldsquaw
All south reports: through 3/24 Anoka/Hennepin (two at Coon Rapids Dam, see winter report) mob, 3/17 **Martin** (Fox L.) KB, 3/28–4/1 Winona *fide* AH. Also reported through early May in Cook, and 5/17 St. Louis (1) PS.

Bufflehead
Overwintered south and north, see winter report. Otherwise, arrivals north were about one week later than usual. Probable migrants 3/27 Douglas SWa and Aitkin WN, 3/28 Kanabec CM. Late south 5/14 Meeker DF. This species typically lingers south into June, where the recent median departure date is 5/26.

Common Goldeneye
No unusual reports and did not linger south as late as usual (latest 4/5 Scott SWe). Peak count 3/22 Houston (1,500 at Reno bottoms which includes Wisconsin birds) KB.

SMEW
First state record 3/17 **Jackson** (Anderson Marsh) KB.

Hooded Merganser
Overwintered south and north, also see winter report for early migrants. Peak count 3/20 Washington (67 at Point Douglas) KB.

Common Merganser
Peak migration during late March in the north-central region. Peak count 3/22 on L. Pepin (448 which includes Wisconsin birds) KB. Late south 5/19 Scott DN.

Red-breasted Merganser
Arrived south about one week later than usual (3/15 Goodhue KB, 3/18 Dakota PJ), but see winter report. Probably overwintered on L. Superior, where reported 3/6 St. Louis (8) JN. Peak counts 4/14 Pope (61) RgS, 5/17 St. Louis (flock of 96 in Duluth) PS. Late south 5/15 Scott BSe, 5/16 Fillmore JSt, **5/17** Olmsted BBr.

Ruddy Duck
See winter report for early south migrants. Early north **3/3** (record early north date) Otter Tail SDM. Peak counts 4/12 Jackson (flock of 1,580 on South Heron L.) KB, 4/18 Big Stone (4,000–5,000) SDM.

Osprey to Falcons

Osprey
Arrived very close to the recent median arrival dates south and north. Early south 3/27 Winona PJ, DN. Early north 3/31 Todd JSK, SDu and Aitkin WN. Peak 4/24 St. Louis (13) FN, DCa.

SWALLOW-TAILED KITE
Reported 5/15–27 **Rice** (Lower Sakatah

"Harlan's" Red-tailed Hawk, late March 1999, Cottage Grove, Washington County. Photo by Karl Bardon.

L.) CVK, mob (***The Loon*** 71:176-178).

Bald Eagle
Overwintered south and north; at nests by mid-March in Otter Tail. Counts on L. Pepin peaked at **496** on 3/22 (KB). Peak north 3/16 St. Louis (229) FN, DCa.

Northern Harrier
See winter report for early south migrants. Early north 3/14 Douglas KKW, 3/17 Cass WB. Peak migration 3/27–4/4 Cass MRN.

Sharp-shinned Hawk
Possible early migrants 3/2 Washington PHe, 3/4 Ramsey SWe, but see winter report. Arrived north later than usual (earliest 3/27 Cass MRN and St. Louis FN, DCa). Peak count 4/14 St. Louis (105) FN, DCa.

Cooper's Hawk
Possible early migrant 3/5 Rice TBo, but see winter report. Early north **3/8** (overwintered?) Clay DDC, 3/19 Cass WB.

Northern Goshawk
Very few reports, continuing the trend noted during the winter season. Only one was seen during the Enger Tower census in Duluth. Late south 4/1 Rice JL, 4/2 Meeker DF.

Red-shouldered Hawk
Reported from 15 south counties, including 5/6 **Meeker** DF. Early north 3/14 Otter Tail SDM, 3/15 Morrison SMr. Also reported north 4/11 **Polk** (Fertile) KE, MBW, plus Cass, Crow Wing, Aitkin.

Broad-winged Hawk
Arrived on time south and north. Early south 4/8 Meeker DF (recent median 4/7). Early north 4/10 St. Louis NJ. Peak 5/3 St. Louis (157) FN, DCa.

Swainson's Hawk
Arrived south later than usual (no March reports). Early south 4/12 Dakota DBS, 4/17 Fillmore BBr and Washington TEB. Unusual location and relatively early 4/7 St. Louis FN, DCa. Only one other north report!

Red-tailed Hawk
Reported throughout the state. Peak counts were both at Enger Tower in Duluth: 4/7 (514) and 4/8 (543) FN, DCa. "Harlan's" Hawks reported late March in Washington (imm.) KB, 3/30 Anoka RH, 4/3 Anoka (ad.) KB.

Ferruginous Hawk
No documented records. **Note:** For all seasons, reports lacking adequate details are not published.

Rough-legged Hawk
Late south 5/8 Goodhue JSe and Washington DS, 5/9 Lyon RgS. Last reported 5/18 in Roseau (AH, PS) where KB counted 61 on 4/8, and 5/21 at Enger Tower in Duluth (FN, DCa).

Golden Eagle
Late south **5/19** Blue Earth/Watonwan (adult) DBr. Also reported south in Cottonwood, Renville, Goodhue. Apart from

St. Louis, only two north reports: 3/14 Otter Tail SDM, 4/9 Wilkin NWi. Peaks 3/16 (9) and 3/18 (10) St. Louis (Enger Tower in Duluth) FN, DCa.

American Kestrel
Reported throughout the state with many north reports beginning 3/14; the recent median arrival date north is 3/4, but see winter report.

Merlin
Late south 5/15 Carver AH, PH, PS, **5/28** Rice SL. A territorial pair of "Prairie" Merlins (*Falco columbarius richardsonii*) was found 5/19 at the Kittson Co. location where nesting was documented in 1998, but subsequent visits failed to relocate either adult (PS *et al.*).

Gyrfalcon
No reports.

Peregrine Falcon
Reported from 18 counties (16 last spring). Most reports were from the Twin Cities area, but the northwest region had Peregrines in four counties: Clay, Polk, Marshall, Roseau. One was hunting at a Sharp-tailed Grouse lek 4/29 Aitkin CB, WN.

Prairie Falcon
Overwintered through 3/4 Hennepin mob. Documented reports: 5/5 Lyon RgS, 5/15 Marshall JJ, SKS.

Partridges to Cranes

Gray Partridge
Reported from 15 south counties, plus Becker, Clay, Otter Tail.

Ring-necked Pheasant
Reported from 43 south and 9 north counties, as far north as Clearwater and Itasca. Common in the west-central region (RJ).

Ruffed Grouse
Reported from 10 south and 20 north counties.

Spruce Grouse
Reported only from Lake.

Sharp-tailed Grouse
Reported from Polk, Lake of the Woods (18) MA, Aitkin (max. 18) WN, St. Louis.

Greater Prairie-Chicken
Reported in range from Polk, Norman, Clay, Otter Tail, Wilkin (84) mob. More unexpected were April reports from Aitkin (WN) and Kandiyohi (USFWS *fide* RJF). The Aitkin Co. bird was seen on a Sharp-tailed Grouse lek, which suggest the possibility of hybridization.

Wild Turkey
Reported from 30 south counties, plus Otter Tail, Douglas, Todd, Morrison. This species continues to expand its range north and west of the southeast region.

Northern Bobwhite
Reported 5/30 Houston (Wilmington Twp.) PS. An escaped or released bird was found on the same date in Steele (ABa).

Yellow Rail
All reports: **4/27**–5/15 Kandiyohi (max. 3) RE, RJF, **4/29** Morrison WB, 5/18 Roseau (4) AH, PS, 5/20 and 5/27 Aitkin (max. 5) WN, 5/22 St. Louis (west of Sax) MSt.

Virginia Rail
Fewer reports than usual and arrived south about a week later than normal (recent median 4/16). Early south 4/24 Rice TBo and Dodge JSt. No April reports north. One unusual report 5/30 **Cook** MBW.

Sora
Many south reports in late April, but none before 4/18. Early north **4/8** (second earliest north) Hubbard DJo, 4/26 Clay MRN, 4/29 Otter Tail DST.

Common Moorhen
Singles reported 5/21 Olmsted (Eastside WMA) SE, 5/22 and 5/31 Wabasha (Whitewater WMA) JLU, PS.

American Coot
See winter report for early south migrants. Early north 3/27 Becker DJo, 3/31 Todd JSK, SDu. Overwintered in Otter Tail, where the first migrants arrived 4/2.

Sandhill Crane
Early south **3/10** (second earliest date) Houston FL, 3/14 Anoka NWi and Hennepin MA. Early north 3/22 Cass MRN and Todd JSK, SDu, 3/23 Kanabec BA. Peak count 4/10 Polk (3,000) MBW. Unusual report 5/30 Steele (near Rice Lake S. P.) ABa.

Shorebirds

Black-bellied Plover
Fewer reports than usual, with all occurrences during the second half of May. Early south and peak count 5/16 Dakota (7) SL, SWe. Reported from only three north counties.

American Golden-Plover
Like the preceding species, relatively few reports and late. One exception was **4/10** Polk (earliest north date) KE, MBW. Early south and only significant peak count 4/29 Lyon (366) RgS.

Semipalmated Plover
Early south (4/24 Lac Qui Parle mob) and north (5/17 St. Louis PS) were later than the recent median arrival dates. See summer report for late migrants. Peak counts 5/10 Meeker (40) DF, 5/23 St. Louis (40) DBM, 5/30 Aitkin (50) CB, WN.

Piping Plover
All reports: 5/17 St. Louis (one near the airport on Park Point in Duluth) PS, 5/29+ St. Louis (pair on Hearding Island in Duluth) PS. One of the latter was observed making and sitting in a scrape, but there was no additional evidence of breeding and neither bird was seen after 6/1 when lake levels were higher.

Killdeer
Except for the southeast region, this species arrived later than usual. Early south

Greater Yellowlegs, 25 April 1999, Lac Qui Parle County. Photo by Marcus Martin.

3/3 Houston FL, 3/6 Houston and Winona JSt. One was documented 3/14 Otter Tail DST; no other north dates until late March.

American Avocet
All reports: 4/19 Hennepin (2 at Medicine L.) OJ, 4/25 Lac Qui Parle mob, 5/18 Roseau (one at Roseau R. WMA) AH, PS, 5/30–31 McLeod (Glencoe) DBM, RJ. Numbers down dramatically compared to recent spring migrations (***The Loon*** 70:11–20). Also see summer report.

Greater Yellowlegs
Arrived south and north slightly earlier than usual; recent median arrival dates are 3/28 and 4/11 respectively. Early south **3/20** Dakota KB and Jackson PJ, 3/27 Olmsted JSt, 3/28 Brown JSp. Early north 4/6 Todd JSK, SDu, 4/7 Polk KB, 4/8 Aitkin CB. No significant concentrations reported.

Lesser Yellowlegs
Arrived south on time (earliest 3/28 Faribault JDa) with many late March and early April reports. Relatively early north, where the recent median arrival date is 4/8; reported 3/31 Todd JSK, SDu, 4/4 Aitkin WN, 4/6 Otter Tail SDM.

Solitary Sandpiper
Arrived late and reported as scarce by RJ, JSp. Early south 4/25 in three counties, then 4/28 Meeker DF and Mower RRK. Early north 5/1 Polk DN, 5/6 Aitkin CB. Only one report from the southeast region and no reports from either the southwest or the west-central regions.

Willet
All reports were later than the recent median arrival dates. Peak counts 4/29 Dakota (11 at Lake Byllesby) DBS, 5/11 Meeker (26 near Boon L.) DF. Only north reports were in Duluth. Late south 5/21 Lyon (1) RgS, **5/30** Hennepin (1) TT *et al.*, **5/31** Kandiyohi (1) RJF. Seasonal total approximately 40 birds in 9 counties.

Spotted Sandpiper
Except for a record early north date **4/2** Todd JSK, SDu, this species arrived on time south and north. Early south 4/24 Dodge JSt, 4/25 in two counties. Peak count 5/8 Goodhue (8) AH, PS.

Upland Sandpiper
Reported from seven counties south, including 5/31 Dakota (2) TT. Early north 5/1 Clay RO and Polk DN, 5/6 Otter Tail SDM. Two reports from the northeast region: 5/22 St. Louis (max. 5) mob, 5/30 **Cook** (1) TN.

Whimbrel
All reports were from the northeast region: 5/20–31 St. Louis (max. 19 on 5/23) DBM, mob, 5/28–30 Cook mob.

Hudsonian Godwit
Arrived south on time, where first reported 4/23 Faribault RJ. Early north **4/10** (ties earliest date on record for the entire state) Polk KE *et al.*, 5/16 Otter Tail SDM. Peak counts 5/18 Roseau (**102**) AH, PS, 5/19 Marshall (14) AH, PS. One in St. Louis was the only report for the northeast region. Late south 5/25 Meeker (6) DF, 5/28 McLeod (1) DF. Also reported in Big Stone, Lac Qui Parle, Kandiyohi (6), Dakota (6). Grand total of at least 142 godwits in 12 counties.

Marbled Godwit
Early south 4/10 Kandiyohi (5) RJF. All other south reports were later than the recent median arrival date (4/13). Early north 4/10 Polk NWi. Peak counts 4/25 Kandiyohi (flock of 19) RJF, 4/24 Clay (13) DF, and a well-described flock of 30 on 5/23 St. Louis (40th Ave. West in Duluth) WM.

Ruddy Turnstone
All reports were from the second half of May. Reported from only four south counties, plus St. Louis, Cook. Early south 5/16 Hennepin SC. Early north 5/20 St. Louis PS. Peak counts 5/17 Dakota (9) BL, 5/27 St. Louis (flock of 65 at 40th Ave. West in Duluth) DBe.

Red Knot
All reports: 5/18 Roseau (2) AH, PS, 5/23–29 St. Louis (max. 3) mob.

Sanderling
Reported from five south counties, plus St. Louis. All reports were in May. Early south 5/9 Lyon RgS. Early north 5/11 St. Louis PS. Peak count 5/29 St. Louis (~100) mob.

Semipalmated Sandpiper
Early south 4/17 Meeker DF, 4/24 Lac Qui Parle mob. Few north reports. Peak counts 5/29 Dakota (95) TT, 5/30 Hennepin (115) SC, 5/31 McLeod (200+) RJ.

Least Sandpiper
Except for 4/20 Dakota SL and 5/5 Otter Tail SDM, arrived later than usual, both south and north. Peak count 5/14 Winona (~100) FL.

White-rumped Sandpiper
Early south **4/24** Lac Qui Parle RH, 5/8 Winona WM, 5/9 Lac Qui Parle RJ. No north reports prior to 5/18 Roseau AH, PS. Peak count 5/26 Lyon (49) RgS.

Baird's Sandpiper
Early south 3/28 Lincoln and Lyon RgS, 4/3 Meeker DF, 4/7 Blue Earth MF; the recent median south arrival date is 4/8.

Also arrived north earlier than usual: 4/10 Polk MBW, 4/25 Douglas ABo. No significant counts.

Pectoral Sandpiper
Early south 3/28 Faribault and LeSueur counties JDa, followed by many early April reports (recent median south arrival date 4/1). Few north reports; earlier than usual 4/10 Polk NWi. No significant counts.

Dunlin
Earliest date on record: **3/28** LeSueur JDa *fide* KB. Otherwise arrived later than usual south and north, with all other reports in May. Peak counts 5/5 Meeker (50) DF, 5/28 Lyon (87) RgS. Higher than usual numbers were also reported 5/21–28 Dakota (max. 35) mob.

Stilt Sandpiper
No significant arrival dates or concentrations noted. Early south 5/8 Big Stone TEB and Meeker DF. Reported from two additional south counties, including a relatively late report 5/30–31 McLeod DBM, RJ. Early north 5/16 Otter Tail SDM, 5/18 Roseau AH, PS.

Buff-breasted Sandpiper
All reports: 5/8 Meeker (2) DF, 5/23 St. Louis (1) DBM. **Note:** This species is exceptional in Minnesota during spring migration, especially in Duluth.

Short-billed Dowitcher
Arrived on time south (earliest 5/5 Meeker DF) and north (earliest 5/16 Otter Tail SDM). Peak counts 5/13 Dakota (21) TT, 5/16 Carver (25) DBM, 5/23 St. Louis (18) DBM.

Long-billed Dowitcher
Few reports, similar to recent spring migrations. No April records anywhere in the state; first reported 5/8 Big Stone TEB. Late south 5/18 Meeker DF, 5/21 Lyon RgS.

Common Snipe
Overwintered in several south counties, plus St. Louis in the north; see winter report. Early north 3/31 Aitkin WN and Wadena PBi, followed by several early April reports. No significant counts.

American Woodcock
Arrived on time south and north, except for a relatively early report 3/19 Lake AH. First reported 3/18 Rice TBo.

Wilson's Phalarope
More reports than usual. Reported from 13 south counties including 5/9 **Fillmore** JSt, plus 7 north counties. All reports were in May except for 4/25 Lac Qui Parle mob. Peak count 5/18 Roseau (159 at Warroad) AH, PS. Observers are encouraged to always report numbers and exact locations for this species.

Red-necked Phalarope
Only reports: 5/21 Lyon RgS, 5/15 Mille Lacs DS.

RED PHALAROPE
Reported 5/29 St. Louis (male, off Park Point in Duluth) KE *et al.* (***The Loon*** 71:166).

Jaegers to Terns

Jaeger, sp?
Reported 5/22 St. Louis (Park Point in Duluth) mob. Although still very rare at this season, this fits the recent pattern (eight of the past ten years) of at least one jaeger in Duluth during spring migration.

Franklin's Gull
Early south 3/31 Dakota KB, followed by many reports in early April. Early north 4/4 Marshall JJ, 4/7 Polk KB. The recent median north arrival date is 4/6.

Little Gull
Only report: 5/17–20 St. Louis (adult off Park Point in Duluth) PS *et al.*

BLACK-HEADED GULL
Only report: one adult photographed by SR on **3/26** Jackson (Spirit L.).

Bonaparte's Gull
Arrived slightly earlier than usual south and north. Early south 3/31 Murray RgS and Dakota KB, 4/2 Lac Qui Parle WM. Early north 4/5 Kanabec CM, 4/7 Douglas KB. Late south 5/25 Hennepin SC; also see summer report. Peak count 5/3 St. Louis (975) PS.

Ring-billed Gull
See winter report for early migrants. Additional early north report 3/12 St. Louis *fide* KE; the recent median north arrival date is 3/23. An albino was photographed 4/6 McLeod (Hutchinson) KB.

Herring Gull
See winter report for early south migrants. Few north reports except for the northeast region, where this species overwinters on L. Superior.

Thayer's Gull
Fewer reports than last spring. Early south 3/16 Washington KB, 3/23 Murray RJ. Also reported 4/2 Scott RJ, 4/9 Dakota (2) KB, 4/10 Isanti RJ. Only north report: one first-year Thayer's 5/1 St. Louis (Minnesota Point) PS. Another reported on 4/5 in Beltrami (Bemidji) will be evaluated by the Minnesota Ornithological Records Committee.

Iceland Gull
No reports.

Lesser Black-backed Gull
Only report: 4/5–9 Dakota (Burnsville) KB. This adult's mantle was paler than normal, but all other characters indicated this species, and there was no other evidence of hybridization.

Glaucous Gull
Fewer reports than usual. Only south report 3/26 Goodhue KB. Peak count 4/8 St. Louis (14 at the Superior Entry) KB. Late north 4/28 St. Louis FN.

Great Black-backed Gull
All reports: 4/14 St. Louis (first-year) KB, **5/7–24** St. Louis (second-year) PS, mob.

Caspian Tern
Arrived on time south (earliest 4/27 Olmsted FKS) and north (earliest 5/1 Cass PJ, DN). More reports than usual from the central and east-central regions, but only one report from western regions. Peak counts in the south 5/14 Hennepin (42–50) WM, SWe, 5/18 Carver (34) DJe. Counts by JN and PS showed a classic pattern of peak migration through Duluth: 5/3 (8), 5/10 (19), 5/17 (40), 5/21 (45), 5/25 (30), 5/29 (16).

Common Tern
Arrived on time south (earliest 4/24 Swift FE) and north (earliest 5/1 Polk PJ, DN), but few north reports. Late south 5/21 Renville (3) AH, PS, 5/22 Hennepin (5) SC. Peak counts both in Duluth: 5/21 (410) and 5/24 (755) St. Louis PS.

ARCTIC TERN
One adult seen 5/21 St. Louis (Duluth, 40th Ave. West) PS (***The Loon*** 71:239).

Forster's Tern
Except for 4/3 Olmsted JSt, all south reports were later than the recent median arrival date (4/10). Early north 4/18 Traverse and 4/21 Douglas SDM. No significant counts.

Black Tern
Arrived south later than usual (earliest 5/5 Hennepin SC). No April reports anywhere in the state. Except for 5/9 Otter Tail SDM, also tardy north, where the recent median arrival date is 5/7. Peak count 5/19 Rice (100) TBo.

Doves to Kingfishers

Rock Dove
Reported throughout the state.

EURASIAN COLLARED-DOVE
Fifth state record 5/29+ **Mower** (2) AnH, AH, mob (***The Loon*** 71:236–237). Three in Lynd were last reported 3/9 (RgS).

Mourning Dove
Reported throughout the state.

Black-billed Cuckoo
Early south 5/11 Meeker DF, 5/12 Freeborn ABa. Only two north reports, both in late May. Peak count 5/18 Meeker (5) DF.

Yellow-billed Cuckoo
Early south 5/15 Rice TBo, 5/19 Houston BBr. No north reports.

Eastern Screech-Owl
Reported from nine south counties (from Lac Qui Parle and Cottonwood in the southwest, east to Hennepin and Houston), plus Todd in the north.

Great Horned Owl
Reported from 24 south and 13 north counties.

Snowy Owl
All reports: 3/4–14 St. Louis (Mountain Iron) mob, 4/25 St. Louis (Pequaywan L.) *fide* DBe, 4/26 and **5/26** St. Louis (Duluth) ME, DG.

Northern Hawk Owl
Only report: 3/7 Beltrami (near Waskish) MA.

Barred Owl
Reported within its range from 19 south and 8 north counties. Peak count 5/12 Winona (10) AH, PS.

Great Gray Owl
All reports: 3/18 St. Louis (near Sax) BY, 3/19 Lake (2) AH, 4/23–28 and 5/5 Aitkin (2) WN, 5/18 Roseau (2) AH, PS, 5/22 St. Louis (three locations in Sax-Zim bog) mob.

Long-eared Owl
Many reports again this spring. A winter roost in the Wilkie Unit of the Minnesota River Valley NWR held up to ten owls in early March (DF). Additional peak count 5/12 Winona (4) AH, PS. Also reported from Lac Qui Parle, Rice (2), McLeod, Anoka, Goodhue, Roseau, St. Louis.

Short-eared Owl
Excellent spring migration in eight south and eight north counties! Minimum total of 45 owls, including peak counts 4/23 Kandiyohi (7) RJF and 4/23–24 Lac Qui Parle (7 at the Plover Prairie) mob. Early south **3/7** (overwintered?) Anoka *fide* AH, 3/19 Anoka KB, 3/24 LeSueur RJ, 3/25 Rice TBo. Reported from three Hennepin Co. locations, including the airport, where one was seen for about two weeks in early April. Early north 3/12 Morrison DJo, 3/31 Otter Tail SDM, 4/4 Clay CGj. Unusual locations 4/7 Lake (4) JLi, SLi, 4/24 St. Louis (Enger Tower in Duluth) FN.

Boreal Owl
April surveys in northeastern Minnesota by Bill Lane found 15 singing males with females detected on four territories. Two were heard 3/19 along the Stony River Forest Road, Lake Co. AH.

Northern Saw-whet Owl
Reported south during March in Rice, Kandiyohi, Anoka, Dakota. At least 40 territorial Saw-whets were located during Lane's surveys in northeastern Minnesota.

Common Nighthawk
Two south reports were earlier than the recent median arrival date (5/1): 4/13 Washington (14) WL, 4/18 Sherburne LC/RN. Early north 5/1 Kanabec CM, 5/7 Aitkin WN. Reported from all regions, but no significant counts.

Whip-poor-will
All south reports were later than the recent median arrival date (4/27). First reported 4/29 Houston KKW. Unusual location 5/1 Lac Qui Parle FE. Reported north 5/18 Roseau, 5/22 St. Louis.

Chimney Swift
Early south **4/8** Dakota (ties earliest date for the state) MOc, then no additional reports until 4/23 in the central region. All other reports south and north were later than the recent median arrival dates, making this record truly exceptional.

Ruby-throated Hummingbird
Early south 5/1 Houston FL, 5/2 Houston

EMF, KK, 5/5 Lyon RgS. Early north **4/26** Pine SL, 5/3 Becker BK, 5/4 Cass PR and Kanabec CM, followed by earlier than usual reports from Aitkin, Todd, Itasca, St. Louis. These early arrivals made the report of a female Ruby-throated on 4/26 in Lake Co. quite plausible, but the description did not preclude other hummingbird species.

Belted Kingfisher
See winter report for overwintering as far north as Otter Tail. Early north **3/11** St. Louis JN, only significant north date.

Woodpeckers to Flycatchers

Red-headed Woodpecker
Early north 4/25 Douglas ABo, 4/30 Aitkin WN. Reported from 28 south and 8 north counties. Unusual location 5/16 St. Louis (Duluth) FN.

Red-bellied Woodpecker
Reported in all regions of the state except the northeast. Unusual report 5/18 **Roseau** AH, PS. More reports than usual from the north-central region, including 3/30 Cass MRN, 5/5–10 Beltrami *fide* DJo, 5/16+ (see summer report) Beltrami (2) PBD (***The Loon*** 71:239).

Yellow-bellied Sapsucker
At least one overwintered in the Twin Cities (see winter report). Probable migrant 3/31 Houston FL, followed by many early April reports south. Early north **3/30** St. Louis SDM, FN, 4/3 Kanabec CM.

Downy Woodpecker
Reported throughout the state.

Hairy Woodpecker
Reported throughout the state.

Three-toed Woodpecker
Only report: male in nest cavity along the South Brule R. 5/30+ Cook KE, MBW.

Black-backed Woodpecker
Reported 5/18 Roseau (1) AH, PS, plus Lake of the Woods, St. Louis, Cook.

Northern Flicker
See winter report for overwintering south. No north reports until 4/4, where the recent median arrival date is 3/26. Peak count 4/25 St. Louis (213 on Park Point) FN.

Pileated Woodpecker
Reported throughout its normal range.

Olive-sided Flycatcher
All reports south and north were later than usual, except for 5/11 Otter Tail SDM. First reported 5/6 Ramsey RH, then 5/10 in four south counties. See summer report for late migrants.

Eastern Wood-Pewee
Early south 5/1 Nicollet BBo, 5/5 Sherburne RJ. Only north report during the first half of May: 5/9 Todd JSK. **Note:** April records are not published without adequate documentation.

Yellow-bellied Flycatcher
Except for 5/13 Hennepin TT, all south reports were from the second half of May. The recent median south arrival date is 5/10. Arrived north on time (earliest 5/18 Roseau AH, PS). See summer report for late south migrants.

Acadian Flycatcher
All reports: 5/16 Scott (Murphy-Hanrahan Park) DN, 5/21 and 5/30 Rice TBo, 5/22+ Houston (max. 4, Beaver Creek Valley S. P.) mob.

Alder Flycatcher
Early south **5/3** Fillmore NO, AO, 5/12 Winona AH PS, 5/14 Goodhue RH. Early north 5/18 Roseau AH, PS (recent median north arrival 5/13).

Willow Flycatcher
Early south 5/5 Hennepin OJ, 5/11 Meeker DF and Mower DSm. No documented north reports.

Least Flycatcher
Arrived south later than usual (no April reports). First reported 5/2 in four south

counties. Early north 5/4 Carlton LW and St. Louis TW, 5/6 Aitkin CB. **Note**: During migration, undocumented records of *Empidonax* flycatchers are not published in this report. Please indicate whether the birds were identified by singing or calling.

Eastern Phoebe
Early south 3/21 Dakota FL and Hennepin SC, 3/22 Washington TEB, plus many additional reports in late March. Early north 3/30 Todd JSK, SDu, 3/31 in three counties.

Great Crested Flycatcher
Arrived south on time, with many reports on 5/2 and 5/3. Early north **4/21** (earliest date north) Cass MRN, 5/8 Morrison MJ/DT, 5/9 Kanabec CM.

Western Kingbird
Arrived seven to ten days later than usual, south (earliest 5/16) and north (earliest 5/15). Reported from six south counties, including 5/18–22 **Mower** RRK *et al.* No reports from the southwest or west-central regions except 5/16 Otter Tail SDM. Unusual location 5/18 St. Louis (Enger Tower in Duluth) FN. Also reported north from Clay, Marshall, Roseau.

Eastern Kingbird
Arrived on time south and north, but only two April reports: 4/24 Sherburne LC/RN, 4/28 Meeker DF. Early north 5/8 in Clay, Morrison.

SCISSOR-TAILED FLYCATCHER
Two reports: 5/22–23 St. Louis (Boy Scout Landing in Gary-New Duluth) mob, 5/27 Hubbard (White Oak Twp.) PP (***The Loon*** 71:168).

Shrikes to Swallows

Loggerhead Shrike
Approximate total of 21 birds reported from 14 counties. Early south 3/16 Rice FKS, 3/25 Anoka (Carlos Avery WMA) PKL. Others were in Lac Qui Parle, Renville, McLeod, Scott, Dakota, Washington, Olmsted, Blue Earth. Reported from four different locations in Dakota Co., including a maximum of five birds along 140th St. in Nininger Twp. All north reports: 5/1+ Clay (2 at Felton Prairie) RO *et al.*, 5/2 Douglas (Solem Twp.) SWa, 5/20 Wilkin SDM, 5/31+ **St. Louis** (Cotton) BY *et al.* **Note**: Please continue to give exact locations and number of shrikes for all seasons.

Northern Shrike
Only two April reports south: 4/1 Hennepin SC, 4/2 Scott RJ. Late north 4/12 St. Louis TW, 4/19 Cass RJ.

WHITE-EYED VIREO
Three reports: 5/8 Goodhue (Hok-si-la Park) DN (***The Loon*** 71:168–170), 5/13–29 Mower (Hormel Nature Center in Austin) DSm *et al.*, 5/16 **Fillmore** (Forestville S.P.) JSt *et al.*

Bell's Vireo
Reported 5/22 Blue Earth (2) ABa, MF, 5/22+ Waseca (2) ABa, JSe *et al.*, 5/24 Dakota (Black Dog L.) TT.

Yellow-throated Vireo
Arrived south on time with peak migration 5/8–10. First reported 5/1 Mower DSm. Early north 5/8 Morrison MJ/DT and Kanabec CM, 5/9 Carlton LW.

Blue-headed Vireo
Arrived south slightly later than usual (no April reports but several on 5/1). Early north 5/2 in Otter Tail, Beltrami, Carlton. Late south 5/31 Rice SL.

Warbling Vireo
Arrived south on time; first reported 5/1 Rice TBo. Like the preceding two species, many reports on the weekend of 5/8–10. Tardy north, where first reported 5/16 in Marshall, Wadena. Peak count 5/8 Goodhue (22) AH, PS.

Philadelphia Vireo
Apparently scarce, with several active observers reporting no sightings (AH, PS) or only one (SC, JSp) sighting all season. Except for **5/4** Freeborn ABa, arrived south

later than usual, with most reports tightly clustered 5/14–18. Seen in only three north counties, including 5/15 Crow Wing WB, PP. Late south 5/29 Dakota DBS.

Red-eyed Vireo
Most south reports were during the second week of May, but 5/3 Hennepin KRv, 5/5 Meeker DF and Mower DSm, were all earlier than the recent median arrival date (5/7). Early north 5/6 Todd JSK, SDu and St. Louis SS.

Gray Jay
Reported throughout the normal range.

Blue Jay
Reported throughout the state. Peak count 5/17 St. Louis (525 on Park Point in Duluth) FN.

Black-billed Magpie
Reported throughout its usual range as far south as Wadena, Cass, and Aitkin. Peak counts 4/18 Aitkin (14) WN, 5/19 Kittson (25) AH, PS.

American Crow
Reported throughout the state.

Common Raven
Reported throughout its normal range, as far south as 4/10 Anoka RJ.

Horned Lark
Reported throughout the state.

Purple Martin
Reported up to one week earlier than the recent median arrival dates south (4/5) and north (4/14). Early south 3/31 Dakota KB, 4/4 Pope RgS, 4/7 McLeod RbS. Early north **4/7** Aitkin CMG, 4/17 Aitkin CB, WN, 4/24 Otter Tail DST. None were seen by SC all season and reported as scarce by RJ.

Tree Swallow
Arrived on time (recent median 3/21) south, where first seen 3/20 in three counties and in ten more by the end of March. Also arrived north on expected dates (recent median 4/4) where first reported 4/2 Morrison WB, plus eight additional counties by 4/7.

Northern Rough-winged Swallow
Arrived south on time, but few north reports. Early south 4/11 Hennepin TT, 4/14 Rice TBo (recent median 4/15). Only April report north: 4/25 Douglas ABo.

Bank Swallow
Arrived south about one week later than usual; first reported 4/24 in Lac Qui Parle, Rice, Dakota. Few north reports. Early north 4/25 Douglas ABo, followed by scattered reports in early May.

Cliff Swallow
Arrived earlier than usual south and north. Early south 4/16 Hennepin TT, 4/23 Lac Qui Parle RH and Hennepin NWi. Early north **4/17** Kanabec RJ, 4/24 Aitkin WN, 4/25 Morrison ABo.

Barn Swallow
Arrived south earlier than usual (recent median 4/12), where first reported 4/4 Hennepin SC, 4/9 Meeker DF, 4/10 Dakota TT. Arrived north on time; first seen 4/19 Wadena RJ.

Chickadees to Gnatcatchers

Black-capped Chickadee
Reported throughout the state.

Boreal Chickadee
Reported within usual range from Aitkin, St. Louis.

Tufted Titmouse
Reported within usual range from Olmsted, Fillmore, Houston.

Red-breasted Nuthatch
Reported throughout the north. Despite low numbers in the south during the CBCs (see winter report), lingered into late May in several locations, including 5/16 Nicollet WM, DBM, 5/17 Freeborn ABa, 5/18 Anoka RH, 5/25 Isanti RH.

White-breasted Nuthatch
Reported throughout the state.

Brown Creeper
Overwintered south and north, see winter report. Peak count 4/5 St. Louis (**23** in Duluth) JN. Late south 5/15 Goodhue SWe, 5/16 Hennepin SC.

ROCK WREN
Reported 5/22–23 **Houston** CMa *et al.*

Carolina Wren
All reports: throughout the period in Rochester, Olmsted Co. LK; early March to late May in Highland Park, Ramsey Co. *fide* AH; 3/31–4/3 on Desnoyer in St. Paul, Ramsey Co. mob.

House Wren
Arrived south about one week later than usual (recent median 4/18). Early south 4/25 Houston KK, with many additional south reports 4/26–30. Early north 4/24 Otter Tail KKW and Kanabec BA, then no reports until 5/4. Peak count 5/8 Goodhue (**64**) AH, PS. **Note**: Reports from Becker and Todd in early April need documentation to rule out the more likely Winter Wren. The House Wren is generally a late April migrant in the south and rarely arrives before the end of April in the north (recent median 5/1).

Winter Wren
Arrived on time south and north. Early south 3/28 Anoka JH, plus 3/30 in three counties. Early north 4/2 Grant SDM, 4/5 St. Louis (peak of 23 in Duluth) JN. Most interesting were the number of late south reports (recent median south departure date 5/13). These included singing birds 5/14 Goodhue (Sand Point) DZ, 5/19 Hennepin (Wolsfeld Woods) SC, 5/26 Hennepin (Cedar L.) SC, 5/29 Houston (Beaver Creek Valley S. P.) FL.

Sedge Wren
No April reports south (recent median arrival 4/27). Early south 5/4 Brown JSp, 5/5 Hennepin SC. Early north 5/1 Clay RO and Aitkin CB, then no reports until 5/14.

Rock Wren, 23 May 1999, Houston County. Photo by Anthony Hertzel.

Marsh Wren
Apparently arrived later than usual south and north. Only one April report (4/25 Meeker DF), followed by reports from five south counties on 5/8. Early north 5/8 Morrison MJ/DT, 5/14 Clay RO.

Golden-crowned Kinglet
Overwintered in Chisago and St. Louis, see winter report. Probably overwintered in Rice (seen 3/1 TBo). Probable migrants 3/27 in Freeborn, Rice, Hennepin, Mower. Early north (possibly overwintered) 3/14 Aitkin WN, 3/31 St. Louis JN. No May reports south, last seen 4/30 Rice TBo.

Ruby-crowned Kinglet
Arrived on time south and north, except for **3/19** St. Louis JN. Early south 3/28 Rice TBo and Hennepin DF, plus several reports 3/30–31. Additional early north reports 4/2 Morrison WB, 4/7 Carlton LW (recent median north arrival is 4/7). Peak migration 4/21 in the west-central region SDM. Late south 5/20 Hennepin SC, 5/21 Scott DZ.

Blue-gray Gnatcatcher
No south reports before the recent median arrival date (4/22). First reported 4/25 Brown JSp, 4/26 in four south counties. Unusual locations 5/8 Big Stone TEB, 5/9 Lac Qui Parle (Boyd) FE. Early north 5/6 **St. Louis** (Park Point) ME, DG,

5/8 Clay (Moorhead) RO and Todd JSK, SDu. Also reported north in Otter Tail, Becker, Wadena, Cass, Crow Wing. Peak count 5/8 Goodhue (**75**) AH, PS.

Bluebirds to Waxwings

Eastern Bluebird
Possibly overwintered southeast, see winter report. Appeared to arrive later than usual south and north. Early south 3/11 Dakota KB, 3/16 in three counties. Early north 3/19 Cass WB, 3/21 Otter Tail SDM.

Mountain Bluebird
All reports: 4/5 St. Louis (female, Park Point in Duluth) JN, 4/24 Kanabec (male, Pomroy Twp.) KR, **5/10–11** Chippewa (male, Leenthrop Twp.) LEA.

Townsend's Solitaire
All reports: **4/10** St. Louis (Park Point) TW, 4/22–25 **Stevens** (Morris) MKu, BSe.

Veery
Almost all reports were later than the recent median arrival dates. Early south 5/6 Ramsey TT, 5/7 Hennepin DZ. Early north 5/8 Kanabec CM, 5/9 Wadena PBi. **Note**: April observations of Veery, Gray-cheeked, and Swainson's Thrushes are not published unless adequately documented, due to confusion with the Hermit Thrush (***The Loon*** 67:44–45).

Gray-cheeked Thrush
All reports were later than the recent median arrival dates. Early south 5/3 in three counties, 5/4 Hennepin SC. Early north 5/12 Douglas SDM and Carlton LW, 5/21 St. Louis JN. No south reports after 5/22 Lac Qui Parle TT.

Swainson's Thrush
Early south 4/23 (good details) Big Stone RH, 5/1 Rice TBo, 5/2 in three counties. Early north 5/2 Clay RO, 5/4 Beltrami DJo. Late south 5/27 Brown JSp and Hennepin SC, also see summer report.

Hermit Thrush
Early south 3/30 Rice TBo, 3/31 Dakota DBS. Early north 4/6 Todd JSK, SDu, 4/8 Grant SDM (recent median north arrival date is 4/11). No south reports after 5/18 Hennepin OJ.

Wood Thrush
Early south 4/24 Steele JSt, 5/5 in four counties. Also reported 5/13 Jackson (3 singing at Kilen Woods S. P.) PS. Early north **4/29** Todd JSK, SDu, 5/5 Aitkin CB, 5/8 in Otter Tail, Morrison.

American Robin
Reported throughout the state.

Varied Thrush
The overwintering bird in Maple Grove was last seen 3/9 Hennepin OJ. A previously unreported bird from early January through late March in Kandiyohi (*fide* RJF) brings the 1998–99 total to 18 (see fall and winter reports).

Gray Catbird
One seen 3/21 Hennepin BSe was apparently the overwintering bird at the Bass Ponds (see winter report), but this species still arrived earlier than usual south and north. Early south **4/13** (second earliest south) Meeker DF, 4/18 Ramsey SL, then many reports 5/2–4. Early north 5/4 Kanabec CM and St. Louis (Duluth) JN, 5/5 Grant SDM, 5/6 St. Louis (Hoyt Lakes) AE. Peak count 5/8 Goodhue (**34**) AH, PS.

Northern Mockingbird
All reports: 4/26–5/6 Washington mob, 5/8 Goodhue (Frontenac S. P.) GrP, 5/9 Carver *fide* AH, 5/13 Rice mob, 5/25 Isanti RH. There were also four reports from the Duluth area in late May which involved a total of two to four birds: 5/21–24 (40th Ave. West) RRS *et al.*, 5/25 (Lester R. Road) TW, 5/26 (Park Point) NJ, 5/31 (Ryan Rd.) *fide* DBe.

Brown Thrasher
Except for 4/4 Meeker DF and 4/13 Brown JSp, all south reports were later than the recent median arrival date (4/15). Noted as late by RJ and next re-

ported 4/18 Watonwan ED. The report 4/3 Todd JSK, SDu, probably refers to the same bird seen there in January and February (see winter report), as this species rarely arrives north before late April. Early north 4/23 Beltrami DJo, 4/30 in Aitkin, St. Louis. Peak count 5/8 Goodhue (16) AH, PS. See also summer report.

European Starling
Reported throughout the state.

American Pipit
Early south 3/27 Dakota DBS, TT, then nearly a month later 4/25 Hennepin SC. Early north 4/10 Polk KE, MBW, then nearly a month later 5/5 Otter Tail SDM. Apparently departed the state within a day or two of the recent median departure dates. Late south 5/17 Rice BL. Late north 5/23 Lake ABo.

Bohemian Waxwing
Peak counts 3/28 St. Louis (980 in Duluth) JN, 4/18 St. Louis (400+ at Enger Tower in Duluth) FN. Also reported during April in Clay, Norman, Beltrami, Aitkin, but no reports after 4/19 St. Louis LW.

Cedar Waxwing
Reported throughout the state, but scarce before May in the north. Unusual report 3/10 St. Louis (17) JN.

Warblers

Blue-winged Warbler
Arrived south on time, where first reported 5/1 Fillmore NO, AO, 5/2 Rice JL and Hennepin SC. Reported from 23 south counties as far west as Kandiyohi and Brown; more reports than usual. First county record 5/13 **Meeker** DF. Only north report: 5/30 Morrison (Camp Ripley) WB.

Golden-winged Warbler
Arrived south and north a few days earlier than the recent median arrival dates. Early south **5/2** Goodhue ABo, 5/3 in Rice, Washington, Fillmore. Early north 5/6 Kanabec CM, 5/7 St. Louis JN. Unusual location 5/8 Lac Qui Parle RJ.

Tennessee Warbler
Early south 4/27 Hennepin TT, then many reports on 5/1 and 5/2. Also arrived north on time, where first reported 5/4 Beltrami DJo, 5/5 Grant SDM. Late south 5/28 Hennepin SC and Olmsted BBr. Record high count 5/8 Goodhue (**250**) AH, PS.

Orange-crowned Warbler
Arrived on time south and north, but a few lingered later than usual. Early south 4/21 Hennepin KRv, 4/24 Lac Qui Parle FE, RH. Early north 4/25 Otter Tail SDM, 4/26 Beltrami DJo. Late south 5/16 Fillmore JSt, 5/25 Hennepin SC. Late north 5/24 Pennington JJ, 5/29 Cass (specimen) MRN.

Nashville Warbler
No April reports south, where first reported 5/1 in Cottonwood, Hennepin, Dakota, then 5/2 in five additional counties. Early north 5/2 Pine BBr, 5/3 St. Louis TW.

Northern Parula
Arrived south on time, with reports from three counties on 5/2 and three more counties on 5/3. Early north 5/5 Grant SDM, 5/6 St. Louis AE, SS. Late south 5/29 Brown JSp, 5/30 Scott SL (rarely lingers south into early June). Unusual number of reports from the southwest region, where this species is a rare migrant: 5/13 Lyon RgS and **Jackson** (Anderson County Park) PS, 5/14 Pipestone (3) and Rock (1) PS.

Yellow Warbler
Early south **4/20** (earliest south date) Dakota SL, then several reports on 5/1 (two counties) and 5/2 (five counties). Arrived north on time, where first reported 5/4 Beltrami DJo, 5/5 Grant SDM.

Chestnut-sided Warbler
Arrived a few days earlier than usual south and north. Many south reports during early May. Early south **5/3** in Freeborn, Fillmore, Hennepin, Washington,

then 5/4 Rice TBo. Early north 5/6 St. Louis AE, 5/8 Todd JSK, SDu and Kanabec CM. No south reports after 5/27 Rice TBo, but see summer report.

Magnolia Warbler
Arrived earlier than the recent median arrival dates south (5/8) and north (5/10). Early south 5/3 in Freeborn, Rice, Fillmore, then 5/4 Hennepin SC. Early north 5/7 St. Louis PS, 5/8 Todd JSK, SDu and Carlton LW. No south reports after 5/27 Hennepin SC.

Cape May Warbler
Early south **5/3** Hennepin DBo, 5/4 Hennepin SC, TT, then six reports 5/7–8. Early north 5/7 St. Louis AE, 5/8 Todd JSK, SDu, 5/9 Pennington JJ. Late south 5/21 Chisago SL, 5/25 Hennepin MA. Note similar dates for the preceding species.

Black-throated Blue Warbler
Only south report: three females documented 5/13 **Meeker** (Darwin-Dassel Park) DF. All north reports: 5/21+ Lake LW, DN, 5/29 Aitkin WN, 5/29 Cook DN.

Yellow-rumped Warbler
Early south 3/28 Washington TEB, 4/1 Washington DS, 4/4 Hennepin ABo. Early north **3/31** (ties second earliest north) Aitkin WN, 4/7 St. Louis JN, 4/9 Grant SDM. Late south 5/22 Dodge JSt, 5/28 Anoka JH. During the North American Migration Count, an overwhelming **2,200** (record high count) were at Hok-si-la Park, Goodhue Co. AH, PS. The observers counted the number of Yellow-rumpeds in ten oak trees selected at random within the park, calculated an average number per tree, and conservatively arrived at this total by counting the number of trees that held this species.

Black-throated Green Warbler
No April reports south (recent median arrival 4/29). Early south 5/1 Cottonwood ED and Rice TBo, 5/2 in four counties. Few north reports. Early north 5/3 St. Louis TW, 5/5 Grant SDM. Late south 5/30 Dakota SL.

Blackburnian Warbler
Arrived relatively early and at about the same time throughout the state. Early south 5/2 Anoka MM and Hennepin SC, 5/5 Mower DSm. Early north **5/4** St. Louis AE, 5/8 Todd JSK, SDu. Late south 5/26 Waseca JSe, 5/27 Rice TBo.

YELLOW-THROATED WARBLER
Reported 5/6+ Kandiyohi (pair at Sibley S. P.) RE, RJF *et al.*

Pine Warbler
No April reports south, where first reported 5/1 Dakota TT (recent median arrival date 4/26). Early north 4/28 Beltrami DJo, 4/30 St. Louis (Duluth) JN. No reports from the western regions.

PRAIRIE WARBLER
One was photographed **5/2** (second earliest south) **Dakota** (L. Byllesby) KG *et al.*

Palm Warbler
No south reports before the recent median arrival date (4/22). Early south 4/24 Dakota BL, then 4/25 in three counties. Early north **4/18** (second earliest north) Grant SDM, 4/28 Beltrami DJo, 4/30 in two counties. Peak migration 5/11 Cass MRN and Crow Wing PP. Peak count 5/8 Goodhue (**400** at various locations, record high count) AH, PS. No south reports after 5/21 Chisago SL.

Bay-breasted Warbler
More reports than last spring. Early south 5/7–8 Goodhue RH, DN, 5/9 Olmsted CH. Numbers up in Hennepin SC, where peak migration 5/14–18. Arrived north on time, where first reported 5/14 in Morrison, Aitkin. No south reports after 5/21 in Rice, Chisago.

Blackpoll Warbler
Early south **4/25** (ties record early date) Brown (1) BBo, 5/1 Hennepin DBo, then 5/2 in two counties. Arrived north on time, where first reported 5/8 in Clay, Otter Tail. Late south 5/26 Hennepin SC, 5/28 Washington DS. Migration can extend into June; no such reports in 1999.

Cerulean Warbler
More reports than last spring. Arrived south exactly on the recent median arrival date (5/8) in Rice TBo and Goodhue (Hok-si-la Park) DN. Unusual location 5/11 Meeker DF. Peak count 5/16 Scott (6 at Murphy-Hanrahan Park) DN. Also reported within usual range from Nicollet (Seven Mile Creek), Carver (Carver Park), Hennepin, Chisago, Goodhue (Cannon R.), Olmsted, Fillmore, Houston.

Black-and-white Warbler
Early south **4/8** (second earliest date) Brown JSp, 4/21 Meeker DF, 4/24 Rice TBo. Arrived north exactly on the recent median arrival date (5/3) in Clay, Beltrami, St. Louis. Late migrants 5/26 Hennepin SC, 5/27 Rice JL.

American Redstart
Arrived significantly earlier than usual south and north. Early south **4/28** Ramsey BL, 5/1 Rice TBo, then 5/3 in five counties. Early north **5/3** (second earliest north) St. Louis JN, **5/5** Aitkin CB, 5/6 Kanabec CM.

Prothonotary Warbler
More reports than usual. Arrived south on time, where first reported 5/4 Hennepin SC, 5/8 in three counties. Unusual report 5/11 **Meeker** (Darwin-Dassel Park) DF. Also reported in Brown, Nicollet, Scott, Dakota, Ramsey, Washington, Rice, Goodhue, Winona, Houston. Only north report 5/29 **Kanabec** CM.

Worm-eating Warbler
Like the other "southern" warblers, more reports than usual. All records: **5/2–3 Kandiyohi** (near Willmar) RJF, 5/8 **Kandi-yohi** (Sibley S. P.) RE, 5/9–12 **Winona** (Whitewater S. P.) mob, 5/29 Mower (Hormel Nature Center) AH, **5/31** (second latest south) **Wabasha** (Co. Rd. 29) PS.

Ovenbird
Arrived on time south and north. Early south 5/2 Freeborn ABa and Fillmore NO, AO, then 5/3 in three more counties. Early north 5/3 Beltrami DJo, then 5/4 in three additional counties.

Northern Waterthrush
Arrived south on time, where first reported 4/25 Dakota TT, 4/26 Olmsted CH. Early north **4/26** (earliest north date) Todd JSK, SDu, **5/1** Clay RO, 5/3 Beltrami DJo. Late south 5/26 Hennepin SC, 5/30 Scott SL.

Louisiana Waterthrush
Early south 4/17–5/29 Houston (max. 3 at Beaver Creek Valley S. P.) JSt, FL *et al.*, 4/24–5/21 Hennepin (Ft. Snelling S. P.) DZ, mob. Peak count 5/12 Winona (**6** singing males in Whitewater S. P.) AH, PS. Also reported in Ramsey (two locations), Washington (L. Elmo), Rice (River Bend N. C.), Goodhue (Hok-si-la Park), Olmsted, Mower.

Kentucky Warbler
All reports: 5/14 Rice (Cannon R. Wilderness Park) TBo, 5/15 **Jackson** (Kilen Woods S. P.) DJo, 5/15 **Kandiyohi** (Robbin's Island Park) RE, RJF, 5/16 Scott (Murphy-Hanrahan Park) DN, 5/17 Hennepin (Wood Lake Nature Center) DW *et al.*

Connecticut Warbler
Fewer reports than usual and arrived relatively late. Early south 5/13 Rice TBo, 5/14 **Meeker** (Litchfield N. C.) DF and Hennepin TT. Early north 5/18 Roseau AH, PS, 5/20 St. Louis AH. Last reported south 5/26 Rice SC.

Mourning Warbler
Early south **5/4** (second earliest south) Rice TBo, 5/8 Winona WM, 5/11 in two counties. Arrived north on time, where first reported 5/15 Otter Tail SDM, 5/16 Marshall JJ and Kanabec CM. Late south 5/27 in Brown, Rice, Hennepin.

Common Yellowthroat
Arrived south on time, but arrived north three days earlier than usual. Early south 5/3 in four counties, then many reports 5/4, 5/5, 5/6. Early north 5/5 Clay RO

and Beltrami DJo, 5/6 Carlton LW.

Hooded Warbler
More reports than usual and exceptional extension into the northeast region. All south reports: 5/9+ Dakota/Scott (Murphy-Hanrahan Park) mob, 5/11 Ramsey (Shoreview) TN, 5/12 **McLeod** (Hutchinson) RbS (***The Loon*** 71:170), 5/13 **Freeborn** (Myre-Big Island S. P.) ABa, 5/14 **Goodhue** (location?) RH, 5/20 Hennepin (Cedar L.) DBo. All north reports: **5/6–7 St. Louis** (female on Park Point in Duluth) DG, mob, **5/7 St. Louis** (male elsewhere on Park Point!) DBe, MSt, 5/24 Morrison (Camp Ripley) SMr, 5/30 **Cook** (yard bird!) KMH. The records in St. Louis and Cook were both well-documented.

Wilson's Warbler
Arrived two–three days earlier than usual south and north. Early south 5/2 Rice TBo, 5/4 Meeker DF and Hennepin SC, 5/5 Mower DSm. Early north **5/6** Todd JSK, SDu, 5/11 Otter Tail SDM, 5/12 St. Louis JN. Late south 5/27 Hennepin SC, 5/28 Rice SL, also see summer report.

Canada Warbler
First reported up to five days earlier than usual south and north. Early south 5/6 Hennepin PJ, 5/8 Goodhue DN, 5/10 in four counties. Early north **5/8** Todd JSK, SDu, 5/15 Marshall JJ, 5/20 Otter Tail SDM. Last reported south 5/25 Hennepin SC, but see summer reports in Anoka.

Yellow-breasted Chat
Two reports: 5/7 Ramsey TN, AH, 5/10–11 Hennepin TT *et al.*

Tanagers to Snow Bunting

Summer Tanager
An unprecedented influx with first county records in seven counties! See article elsewhere in this issue (***The Loon*** 71:216–220.

Scarlet Tanager
Arrived south and north exactly on the recent median arrival dates. Early south 5/7 in three counties and 5/8 in four counties. Early north 5/12 Otter Tail KKW, 5/15 in three counties.

American Tree Sparrow, 6 April 1999, Fridley, Anoka County. Photo by Marcus Martin.

Western Tanager
Only documented reports: 4/30–5/1 Kandiyohi (male near Willmar) mob, 5/8–9 Goodhue (male at Hok-si-la Park) PPa, BBa (***The Loon*** 71:235).

Spotted Towhee
Reported 5/3 Cottonwood (male in Mountain Lake) ED. This was the only report from the southwest region, where this species is now expected during late April and early May. An undocumented report from Rice Co. was excluded since it fell outside this migration corridor and would have been a county first.

Eastern Towhee
Several south reports were unusually early; this species was known to overwinter only in the north (Todd Co., see winter report). Early south **3/27** (overwintered?) Ramsey SL, 4/3 Winona JSt, 4/4 Houston FL. Few north reports and apparently arrived on time; first reported 5/4 Morrison WB, 5/7 St. Louis JN.

American Tree Sparrow
No reports later than the recent median

departure dates south (5/1) and north (5/12). Late south 4/23 in two counties, 4/24 Mower RRK. Late north 4/23 in two counties, 4/25 Kanabec CM. See summer report for additional late migrant!

Chipping Sparrow
Arrived south on or near the recent median arrival date (3/26) but earlier north than usual. Early south 3/26–27 Rice JL, 3/27 Jackson MJC. Early north **4/4** Kanabec BA, 4/6 Aitkin CB, 4/11 Todd JSK, SDu. Peak count 5/8 Goodhue (**120**) AH, PS.

Clay-colored Sparrow
Arrived about four days later than usual south and north. Early south 4/25 Hennepin SC and Dakota SWe, then no reports until 5/2. Early north 5/1 Clay RO, then many reports on 5/2 and 5/3.

Field Sparrow
Arrived south later than usual, where first reported 4/2 Dakota TT and Fillmore NO, AO, 4/3 Goodhue JSt. Early north 4/18 Otter Tail SDM, 5/6 Kanabec CM. Unusual report 5/30 **Cook** (Grand Marais) TN.

Vesper Sparrow
Arrived within three days of the recent median arrival dates south and north. Early south 3/26 McLeod DF, 3/27 Dakota TT, then no reports until 4/1. Early north 4/12 Morrison WB, 4/17 Clay RO, then 4/18 in two counties.

Lark Sparrow
Early south 4/25 Lac Qui Parle BSe and Anoka JH, then no reports until 5/3 Washington RJ. Few reports and apparently arrived later than usual north, where first reported 5/17 Morrison WB.

Savannah Sparrow
Arrived on time south and north. Early south 4/2 Houston FL, then 4/7 Lac Qui Parle FE. Early north 4/14 and 4/18 Douglas RgS, SWa, 4/20 Red Lake RJ.

Grasshopper Sparrow
Arrived south later than usual (no April reports), but reported from 18 south counties in all regions except the west-central. Early south 5/2 Freeborn ABa, 5/6 Mower RRK. Arrived on time north, where first seen 5/8 Todd JSK, SDu, but few north reports. Unusual reports 5/29 **St. Louis** (Park Point in Duluth) mob, 5/30 **Cook** (Grand Marais) MBW.

Henslow's Sparrow
All reports: 5/5+ **Carver** (2–3 at Carver Park) mob, 5/15+ **Rice** (max. **8** at Faribault WMA) TBo *et al.*, 5/16 Fillmore JSt, 5/17 Rice (Shields L.) TBo, 5/18 Mower ABa. **Note:** None were documented.

LeConte's Sparrow
Only south report: 4/25 Hennepin TT *et al.* Very few north reports. Early north 5/1 and 5/16 Clay RO, CN, 5/18 Roseau AH, PS. Unusual report 5/30 Cook MBW.

Nelson's Sharp-tailed Sparrow
Only report: 5/18 Roseau AH, PS.

Fox Sparrow
Arrived south later than usual, but arrived north on time and then departed the state ahead of schedule. Early south 3/20 Brown JSp and Fillmore NO, AO, then numerous arrivals from 3/26 through the end of the month. Early north 3/29 Todd JSK, SDu, 3/30 in two counties. No May reports south or north. Latest south 4/25 Rice TBo. Latest north 4/28 Kanabec CM. Peak count 3/31 Houston (**75**) FL.

Song Sparrow
See winter report for overwintering birds. Apparent migrants 3/20 Freeborn and Fillmore DN, 3/21 in two locations. Early north 3/20 Wadena PBi, then many arrivals 3/29–31 (recent median north arrival date 3/26).

Lincoln's Sparrow
Arrived south later than usual (recent median 4/6) but did not linger. Early south 4/22 Hennepin KO, 4/23 Meeker DF. Early north 4/21 St. Louis NJ, then no reports until 5/2 Clay RO. Late south 5/17 in three counties.

Swamp Sparrow
The overwintering bird in downtown Minneapolis, Hennepin Co., was last seen 5/6 TT. Early south 3/25 Hennepin SC, 4/2 Ramsey TT. Early north 4/11 Todd JSK, SDu, 4/15 St. Louis TW.

White-throated Sparrow
Presumably overwintered south and north, see winter report. Reports on 3/11 Winona BBr and 3/14 Hennepin DZ apparently refer to overwintering birds since nearly all other arrivals were mid-April or later. Probable migrant 4/3 Ramsey TT; also arrived 4/11 Jackson MJC, 4/13 Lac Qui Parle FE. Early north 4/23 Otter Tail KKW and St. Louis SS, then 4/24 in three additional counties. Peak migration 4/30–5/3 St. Louis JN. No south reports after 5/27 Hennepin TT.

Harris's Sparrow
Early south 3/27 Watonwan DBr, 3/30 Faribault KB; possibly overwintered but not known to do so in these areas (see winter report for overwintering north). Probably overwintered in west Duluth, since 4/2 St. Louis JN was the only April date north. Early north 5/3 Otter Tail (but overwintered in this county) KKW, 5/6 Aitkin WN and Kanabec CM. Peak migration 5/11–16 Cass MRN. Late south 5/15 Brown JSp, 5/23 Lac Qui Parle FE. No north reports after 5/22.

White-crowned Sparrow
Arrived south later than usual, with only one April report. Early south 4/24 Stearns MJ/DT, 5/1 Dakota TT, then many reports over the next three days. Early north **4/12** (earliest north date, possibly overwintered) Kanabec CM, 5/2 Morrison WB, 5/4 in two counties. Late south 5/19 Washington DN, 5/21 Chisago SL. Late north 5/22 Clay GN, 5/24 St. Louis TW. The latest reports south and north were within one day of the recent median departure dates.

Dark-eyed Junco
Late south 5/22 Hennepin ABo, 5/23–29 Anoka MM. Peak count south 4/2 Isanti (flock of 480) KB. Peak count north 4/3 Mille Lacs (**1,200**) KB.

Lapland Longspur
See winter report for early north migrants. Peak count 4/17 Clay (1,000) RO. Late south 4/24 Hennepin SC, 5/4 Dakota SWe (recent median departure date 4/29). Late north 5/17 St. Louis PS, 5/22–23 St. Louis TW, ABo.

Smith's Longspur
Only report: **5/23–24** (latest spring date) **St. Louis** (female at 40th Ave. West in Duluth) WM *et al.*

Chestnut-collared Longspur
Early north **4/7+** (ties second earliest north) Clay (Felton Prairie) SDM.

Snow Bunting
Departed earlier than usual south and north. No south reports after 3/19 Meeker DF. Late north 4/15 St. Louis NJ.

Cardinals to Orioles

Northern Cardinal
Reported throughout its range. Reports continue to increase in the northeast region, especially in Duluth.

Rose-breasted Grosbeak
Arrived on time south and north. Early south 4/29 Fillmore NO, AO, then numerous arrivals during the first three days of May. Early north 5/3 Cass WB, MRN, then multiple arrivals over the next three days.

BLACK-HEADED GROSBEAK
Only report: 5/13 Jackson (female at Anderson County Park) PS (***The Loon*** 71:237–238).

Blue Grosbeak
No reports.

Lazuli Bunting
Reported 5/19–21 Lac Qui Parle (male in Boyd) FE *et al.* (***The Loon*** 71:165).

Indigo Bunting
Arrived on time south and north. Early

south 5/3 Rice TBo and Fillmore NO, AO, then daily arrivals over the next three days. Early north 5/8 Todd JSK, SDu, 5/11 Kanabec BA. Reported from all nine regions in the state.

Dickcissel
Early south 5/8 Brown BBo, 5/16 Meeker DF, then scattered reports in late May. Only north report: 5/31 Carlton LW.

Bobolink
Arrived at about the same time, south and north. Isolated reports in early May were followed by many arrivals 5/8–15 throughout the state. Early south 5/3 Washington RJ, 5/4 Rice TBo. Early north 5/3 Todd JSK, SDu, 5/5 Cass WB. Reported from all nine regions.

Red-winged Blackbird
Reported throughout the state. Early north 3/14 Aitkin CMG, 3/16 Itasca BN, then many arrivals 3/19–21.

Eastern Meadowlark
Early south 3/17 Dakota KO, then daily arrivals 3/19–22. Early north 3/28 Aitkin WN, 4/1 Todd JSK, SDu. Unusual reports 4/18 **Polk** DJo, 5/18 **Roseau** (Nereson Twp.) AH, PS.

Western Meadowlark
First migrants (?) 3/17 Cottonwood KB, 3/19 Lyon RgS. Early north 3/20 Wadena PBi, 4/2 Red Lake JJ.

Yellow-headed Blackbird
Arrived within four days of the recent median arrival dates south and north. Early south 3/28 Scott KO, 4/2 Jackson FL. Early north 4/12 Otter Tail SDM, 4/20 Norman RJ.

Rusty Blackbird
Apparently arrived south later than usual; first reported 3/15 Dakota KB, but see winter report. Early north 3/27 Becker DJo, 3/30 Todd JSK, SDu. Peak count 4/4 Wright (**400** at Elk R.) KB. Only May report south: 5/15 Goodhue JSt. Only significant late north date: 5/18 Roseau AH, PS.

Brewer's Blackbird
Arrived within four days of the recent median arrival dates south and north. Early south 3/9 Lyon RgS, 3/19 Meeker DF. Early north 3/31 Todd JSK, SDu, 4/3 Kanabec CM.

Common Grackle
Reported throughout the state. Early north 3/4 (overwintered?) Otter Tail DST, 3/7 Aitkin WN.

GREAT-TAILED GRACKLE
Fourth state record 3/26 through the end of the period in Jackson Co. (at or near Grover's Lake WMA) mob; no fewer than two males and two females were at the same location as last year. Photographs were obtained on 3/30 (KB). One male was found at a new Jackson Co. location on 5/13 (Middletown Twp., section 33) PS.

Brown-headed Cowbird
Early south 3/7 Dakota DBS, TT, 3/20 Meeker DF and Olmsted CH, then 3/21 and 3/22. Early north 4/2 Otter Tail DST, 4/3 Kanabec CM, 4/8 Aitkin WN.

Orchard Oriole
Arrived on time south and north. Reported in all regions except northeast. Early south 5/8 in three counties. Early north 5/15 Cass WB, 5/16 Todd JSK, SDu. Reported northwest in Becker, Clay, Roseau.

Baltimore Oriole
Arrived south on time, where first reported 4/30 Houston FL, 5/1 Cottonwood ED. Numerous arrivals south 5/2–5. Early north 5/3 in four counties, 5/4 in Aitkin, Kanabec, 5/5 Grant SDM (recent median north arrival date 5/7).

Finches to Old World Sparrows

Pine Grosbeak
Only reports: 3/6 Itasca BN, 3/18–24 St. Louis mob.

Purple Finch
Late south 5/6 Goodhue DBS, 5/8 Fillmore NO, JSt, 5/23 Washington TEB.

House Finch
Reported throughout the state.

Red Crossbill
Late south **5/15** Goodhue JSt, **5/18** Anoka OJ. Reported during March in Dakota, LeSueur. Reported north into late May in Otter Tail, Kanabec, St. Louis. More reports than usual from Duluth, where seen daily through mid-April (PS) and regularly through 5/20 (ME) and 5/22 (TW).

White-winged Crossbill
Only (?) report: 4/11 St. Louis (20) JN.

Common Redpoll
Only reports: 3/6 Lake SS, 3/14 St. Louis NJ, 3/20 Lake of the Woods DS.

Hoary Redpoll
No reports.

Pine Siskin
Reported throughout the state.

American Goldfinch
Reported throughout the state.

Evening Grosbeak
Fewer reports than usual, continuing a trend from last season (see winter report). No south reports. Peak count 4/17 Aitkin (50) WN.

House Sparrow
Reported throughout the state.

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KKW	Kristine & Kyle Wicklund
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SWi	Sylvia Winkelman
NWi	Ned Winters
SWo	Scott Wolff
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Abbreviations

mob	many observers
ANWR	Agassiz National Wildlife Refuge
BSNWR	Big Stone National Wildlife Refuge
HRNR	Hawk Ridge Nature Reserve
MBW	Minnesota Birding Weekends
MDNR	Minnesota Department of Natural Resources
TNWR	Tamarac National Wildlife Refuge
USFWS	U. S. Fish & Wildlife Service

An Influx Of Summer Tanagers

Karl Bardon

During May 1999 there was an unprecedented influx of Summer Tanagers into Minnesota. Unfortunately, despite the great interest in this species, and the multitude of observers who saw one or more of these individuals, only three of the reports were documented with adequate details: the Fillmore, Swift, and St. Louis county records (Table 1). A June record from Hennepin County was also documented.

History repeats itself: in 1995 there was a similar influx of Western Tanagers (a Casual species at that time), with 20 individuals reported (***The Loon*** 67:180), but only six of these records were documented and accepted by the Minnesota Ornithological Records Committee (***The Loon*** 68:58). This article summarizes the spring 1999 influx of Summer Tanagers and compares it to an analysis of all previous records of this species in Minnesota.

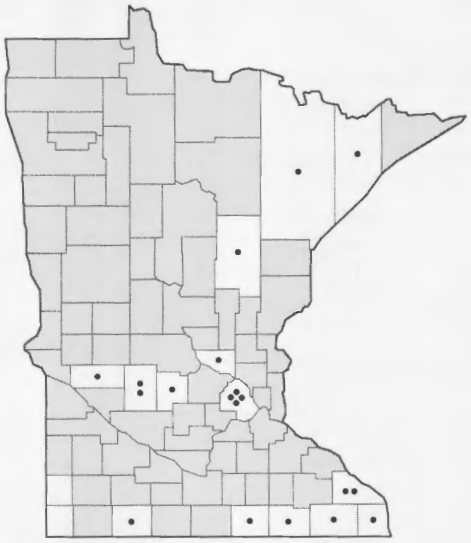


Figure 1. County distribution of Summer Tanager records in Minnesota, May–June 1999.

Yearly Distribution

At least 18 Summer Tanagers were recorded in the state during May 1999, with an additional bird heard by an experienced observer on 24 June 1999 (Figure 1 and Table 1). This spring influx constitutes more individuals than have been reported during the last ten springs combined, and it represents nearly 20% of the total number of Summer Tanager records for the state through 1999 (99 total records). The previous high spring total was six birds during 1983 (Figure 2). Although the Summer Tanager was voted to Regular status in 1983 (based on records from 1972–1982), the average number of reports per year since 1972, excluding the 1999 influx, is only 2.6 individuals. Prior to 1972, there are only seven records on file, including the first record for the state: a specimen taken near Pipestone, Pipestone County, in 1891.

Seasonal Distribution

Nearly two-thirds of the spring 1999 birds (63%) first occurred on or before 10 May. This is earlier than the pattern shown by records prior to 1999 in which only 19% of all records first occurred on or before 10 May. When all 75 spring (April – June) records including 1999 are analyzed, over three-quarters (77%) were seen during the period 1–20 May, with a peak from 11–15 May (Figure 3). There are only two April records: 27 April 1978 in Marshall County (***The Loon*** 51:206) and 28–29 April 1994 in Winona County (***The Loon*** 66: 189). The latest "spring" date is 25 June 1994 in Rock County (***The Loon*** 67:34).

There were only two reports during fall 1999 (20 August at Spring Lake Park,

Table 1. Spring 1999 (May–June) records of the Summer Tanager in Minnesota.

Date	Location	Sex	Observer
1 May	near Kilen Woods S. P., Jackson Co.	adult male	B. Seeliger, D. Arnold
1 May	Willmar, Kandiyohi Co.	adult male	*fide* R. Frederickson
4–8 May	Bass Ponds, Hennepin Co.	adult male	D. Jackson, mob
4 May	Willmar, Kandiyohi Co.	imm. male	R. Frederickson
5-8 May	Bass Ponds, Hennepin Co.	imm. male	J. Ellis, mob
5–11 May	J. C. Hormel Nature Center, Mower Co.	imm. male	D. Smaby, mob*
6 May	Wealthwood, Aitkin Co.	?	C. & M. Geertz
7, 16 May	Canton, Fillmore Co.	imm. male	N. & A. Overcott*
8 May	Prairie Island, Winona Co.	?	C. Schumacher *et al.*
8 May	Pomme de Terre River, Swift Co.	adult male	A. Bolduc*
10–20 May	Lake Chapeau, Freeborn Co.	imm. male	A. Batt, mob
10 May	near Reno, Houston Co.	adult male	W. Marengo
12 May	Winona, Winona Co.	imm. male	D. Benz *et al.*
16 May	near Dassel, Meeker Co.	imm. male	P. Frank *fide* A. Hertzel
16–18 May	Duluth, St. Louis Co.	imm. male	D. Kienholz, mob
17 May	Bloomington, Hennepin Co.	imm. male	J. Peterson
24 May	Castle Danger, Lake Co.	?	*fide* K. Eckert
29 May	Baldwin Twp., Sherburne Co.	adult male	S. Cook
24 June	Old Cedar Ave. Bridge, Hennepin Co.	heard only	S. Carlson*

*Documented by photograph or written details.

Anoka County, and 21 October at Knife River, Lake County). In contrast to spring (75 records), there are only 24 fall records (August–December) through 1999, occurring from an early date of 8 August 1984 in St. Louis County (***The Loon*** 57:101) to a late date of 22 December 1988 in Anoka County (***The Loon*** 60:135). The fall peak is approximately 16 October – 15 November (Figure 3), with this period accounting for over half (55%) of all occurrences. Nearly two-thirds (63%) of all fall records are from the North Shore of Lake Superior, with nearly three-quarters (71%) of North Shore records first seen in the last two weeks of October (15–31 October).

Stopover Period

Several of the May 1999 Summer Tanagers were present for extended periods, allowing many interested observers to see this species. The two individuals at the Bass Ponds, Hennepin County, and the single individuals present in Mower, Freeborn, and St. Louis counties in particular were reportedly seen by many observers. Of the 75 spring records on file, 19 of them were known stopovers, with an extreme stopover period of 12 days (14–25 May 1997 at Westwood Hills Nature Center, Hennepin County), and an average stopover time of 4.9 days. In contrast to spring, stopover periods were longer in fall, with an extreme stopover period of 25 days (30 October – 23 November 1993 in Hennepin County), or even 46 days if records from the same Duluth neighborhood on 24 August and 8 October 1980 are considered the same individual (they were considered separately during this analysis). Of the 12 known fall stopovers, the average stopover period is 13.5 days.

County Distribution

Apparent first county records were reported in 1999 for Aitkin, Freeborn, Houston, Jackson, Meeker, Sherburne, and Swift counties, bringing the total number of counties in which this species has been reported to 39 (10 north and 29 south) (Figure 4). Nearly half (47%) of this spring's reports came from the East Central and Southeast regions, which

Figure 2. Yearly distribution of Summer Tanager records (n=92) in Minnesota, 1972–1999 (only 7 records prior to 1972). Spring records occurred from April–June, and fall records from August–December.

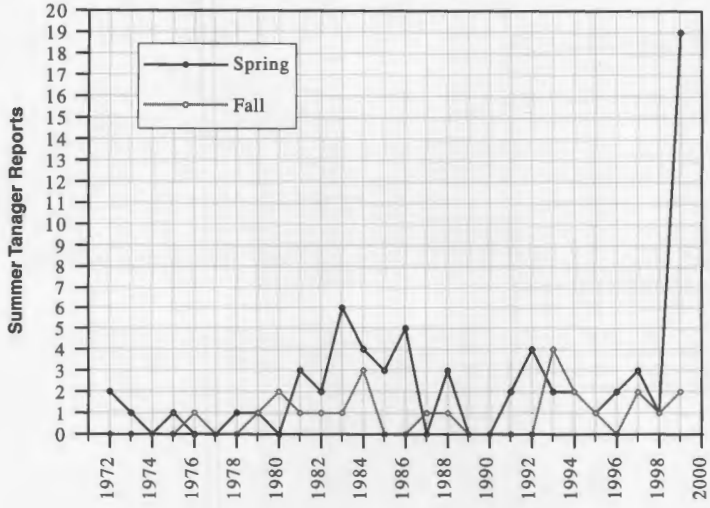
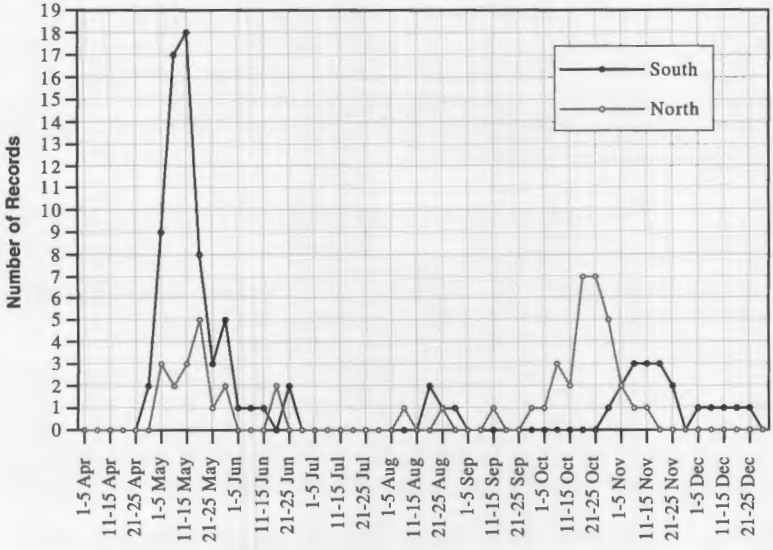


Figure 3. Seasonal distribution of Summer Tanager records (n=95) by five-day intervals (pentads). Some pentads at the end of each month had six days. Known stopovers were included within each pentad of occurrence. Four records with uncertain dates were excluded (late May 1891, early May – 14 May 1979, May 1982 record from Lyon Co., and late May 1996), while the December 1988 record was included only for 1–22 December, even though it was reported to have been present since mid-November.



compares favorably to the spring distribution prior to 1999, in which 43% of all records came from these two regions. Using both spring and fall records, two-thirds (65%) of all records are from the three eastern regions, with a slight increase in records from south to north: 19 records in the Southeast region, 21 in the East Central, and 25 in the Northeast region. The county with the highest number of records is St. Louis (16 records), while Hennepin has 12 records.

Age Distribution

All but three of the May 1999 records were aged, yielding a distribution of six adult males, nine immature males, and no females. This compares favorably to the overall spring pattern (including 1999 records) of 16 adult males, 21 immature males, and 3 females, although it should be noted that the majority of records since 1983 have not included any age or sex designation. Immature males in their first spring (second calendar year) were aged by the presence of any noticeable amount of yellowish-greenish color, usually including at least the belly, in the otherwise solid reddish male plumage.

Summer Records

The Summer Tanager has been recorded in June seven times. There are no July records. Most of these June dates probably pertain to lingering spring migrants, but the possibility of breeding does exist, as evidenced by one seen carrying food at Frontenac, Goodhue County, on 8 June 1952 (*The Flicker* 24:119–121). During 1999, one Summer Tanager was heard calling at the Old Cedar Avenue Bridge, Hennepin County on 24 June by Steve Carlson, but unfortunately the bird was never seen, and could not be relocated on subsequent visits. In the analysis of spring and fall dates, all June dates were treated as spring migrants.

Possible Trends

The spring 1999 influx of Summer Tanagers coincided with increased numbers of various other southeastern species reported in Minnesota, predominantly warblers, such as Prothonotary, Hooded, Kentucky, and Worm-eating, but there were also three records of the White-eyed Vireo (a Casual species) in May 1999. All of these species' ranges lie predominantly east of the 100th meridian on the Great Plains (Peterson 1980), suggesting a probable origin of this spring's Summer Tanagers (a species which has an extensive range in the Southwest as well).

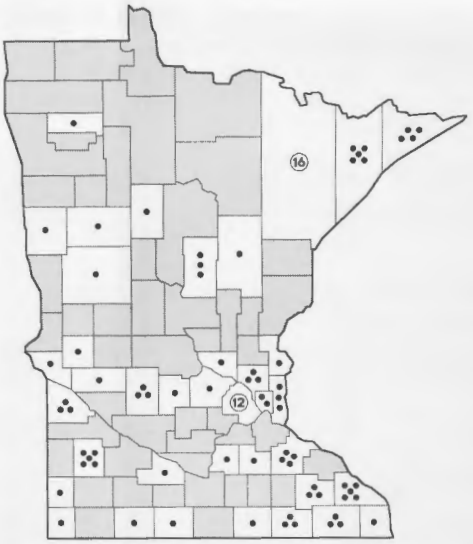


Figure 4. County distribution of all Minnesota Summer Tanager records (n=99).

This conclusion is supported by data given by regional authors in the spring migration issue of *North American Birds* (Vol. 53, No. 3). In the Western Great Lakes region (which includes Minnesota), there were 12–15 Summer Tanagers in Wisconsin and 3 in Michigan (p. 283). Three individuals were also recorded as far north as southeast Manitoba in the Prairie Provinces region (p. 293) and one was reported from Fargo, North Dakota in the Northern Great Plains region (17th record for that state). And finally, Summer Tanagers were "unusually widespread and pressed farther north than normal" in the Middlewestern Prairie re-

gion (Iowa, Missouri, Illinois, Indiana, Ohio and Kentucky), with peak counts of 14 in Johnson County, Missouri on 13 May, and 9 in Union County, Illinois on 24 April (p. 287).

Summer Tanagers breed regularly as close to Minnesota as southeastern Nebraska, southern Iowa, central Illinois, and southern Ohio (AOU 1998). It seems likely that most individuals involved in the spring 1999 influx into Minnesota were overshoots from the closest portion of this species' breeding range in the Middlewestern Prairie region.

Acknowledgements

I would like to thank Mark Ochs for writing an earlier draft of this article and spending time tracking down the specifics of each record reported in May 1999. Anthony Hertzel created the maps and figures at the last minute. Peder Svingen provided seasonal report information concerning all 1999 records, and Peder's comments and suggestions during the last stages of this article greatly improved its content.

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Northern Saw-whet Owls Nesting in Washington County

Anthony X. Hertzel

The Northern Saw-whet Owl is a somewhat rare and local species nesting primarily in the boreal/hardwood forests of northeastern Minnesota. The extent to which it breeds in the sourthern portions of the state is poorly known, with very few records in the last 100 years. In 1999 two separate nesting records of the Northern Saw-whet Owl were recorded in Washington County.

Hertzel and Janssen (1998) list only two nesting records from the southern half of the state since 1970. The first of these records was from Ramsey County on 20 May 1978 in the St. Paul suburb of North Oaks (Campbell 1978). Though the initial breeding in a deserted Wood Duck nest box was successful, three young were eventually found dead. The second record is from Minneapolis, Hennepin County, near the Mississippi River (Hitman 1988). A single adult was first noticed on 31 May 1988. Eventually both adults were observed and they successfully raised two young. The last observation of this family group was 30 July of that year.

In early March of 1999, Jeff Kelsey found Northern Saw-whet Owls nesting in a Wood Duck box near McDonald Lake in Washington County. The box was located nine feet off the ground in a

Six Northern Saw-whet Owl chicks, 15 May 1999, Washington County. Photo by Kraig Kelsey.

grove of evergreens, poplar, and other hardwoods. Six eggs were found in the box, which was 8" x 8" and 18" tall and contained 5" of cedar chips. The first hatched young was seen on 17 April and this bird left the nest on 20 May. By 29 May all six birds had successfully fledged. Neither the adults nor the young were seen after the last bird left the nest. This represents a first nesting record for Washington County.

Surprisingly, a second Washington County nesting record of Northern Saw-whet Owl was also recorded in 1999. On 27 March an adult and two eggs were found in a nest box in William O'Brien State Park in the northeastern part of the county. By 18 April the nest contained seven eggs. Detailed notes on the progression of incubation show the following: *25 April,* two chicks hatched; *2 May,* four more chicks hatched; *9 May,* eyes open on oldest chick; *15 May,* two chicks dead; *18 May,* remaining four chicks banded; *27 May,* three birds fledged; *30 May,* remaining chick fledged.

Traditionally, the Northern Saw-whet Owl is thought to breed across the southern half of Canada and, in the Midwest, southward through most of Minnesota, all of Wisconsin, northeastern Iowa, and northern Illinois (Cannings 1993). Yet positive nesting records within this range but away from the northern portions of Minnesota are few. No nesting Saw-whets were found on the Iowa Breeding Bird Atlas Project from 1985–1990 (Jackson *et al.* 1996) and there are no nesting records known for the state (Kent and Dinsmore 1996). Of its occurrence in Wisconsin, Robbins (1991) writes "the implications of some findings... are that this secretive species may well nest in considerable numbers throughout forested northern Wisconsin." In Illinois, Bohlen (1989) lists just three old documented records. In Minnesota, there is a possible Hennepin County nesting record from

Northern Saw-whet Owl chick, 9 May 1999, O'Brien State Park, Washington County. Photo by Randal L. Lorenzen.

Northern Saw-whet Owl chick, 18 May 1999, O'Brien State Park, Washington County. Photo by Randal L. Lorenzen.

1991 (Wiens 1992) when two adults were seen with two young on 20 July. There is an old Hennepin County nesting record from May of 1881 and there are also two old nesting records from Sherburne County, both in April of 1884 (Roberts 1932).

There are a few other summer records from the southeastern regions of Minnesota, but none include any observed breeding behavior. Clearly there is much still to learn of this species' nesting range in the Midwest.

Thanks to Kraig Kelsey for information and photographs of the McDonald Lake birds, and to Bob Janssen, Diane Hedin, and Bert Hudson for providing information and photographs of the O'Brien State Park birds.

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Recent Status and Record High Counts of the Ross's Goose in Minnesota

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Numbers of Ross's Geese migrating through Minnesota have been steadily increasing each year since this species' status officially changed from Casual to Regular in December 1993. In this article we review its changing status in North America, its occurrences in Minnesota since the first state record in 1962, and its remarkable influx into western Minnesota during spring 1999. During the 1999 spring migration, first county records were established in no fewer than eight counties and the size of several flocks was two to six times as large as any previous report in the state!

The status of the Ross's Goose (*Chen rossii*) in North America has undergone dramatic changes in recent decades. Fewer than 6,000 Ross's Geese existed in 1930 (Dzubin 1965). Current estimates are about one million Ross's in North America (Wilkins and Cooch 1999). These and other Arctic goose populations are believed to be at their all-time highest levels, which threatens their very survival on the fragile tundra breeding grounds where overgrazing and crowding are serious problems.

The Changing Status of the Ross's Goose

Although the "Horned Wavey" was first reported in the 1770s by Arctic explorers, the nesting grounds of this species remained undiscovered until 1940 (Taverner 1941, Ryder and Alisauskas 1995). About 95% of the world's population of Ross's Geese currently nests in the Queen Maud Gulf Migratory Bird Sanctuary (Alisauskas and Boyd 1994, Kerbes 1994). This sanctuary is located in Nunavut, Canada's newest territory. The breeding range of the Ross's Goose has expanded farther east and south, to include the west coast of Hudson Bay as far south as James Bay (Ryder and Cooke 1973, Prevett and Johnson 1977, A.O.U. 1998). Migration corridors have also expanded. Dzubin (1965) described an eastward expansion during fall staging within the Prairie Provinces of Canada, and Ross's have shifted their migratory range within the United States (Prevett and MacInnes 1972, Melinchuk and Ryder 1980).

According to the U.S. Fish and Wildlife Service, the mid-continental population of the Lesser Snow Goose (*C. caerulescens caerulescens*) has increased more than 300% over the past thirty years and continues to grow at a rate of more than 5% per year (Wilkins and Cooch 1999). The Arctic Goose Habitat Working Group (Batt 1997) recently estimated between 4.5 and 6 million Lesser Snow Geese in this population alone. Ross's Geese associate with Lesser Snow Geese on their wintering grounds, breeding grounds and during migration. Thus, Ross's are more difficult to census separately but their populations have also steadily increased since the mid-1960s (Ryder and Alisauskas 1995, Batt 1997, and references therein).

This dramatic increase in populations of "light geese" may be attributable to several factors (Abraham *et al.* 1996, Batt 1997). A general warming trend in vast areas of the Canadian Arctic has resulted in earlier nesting and improved reproductive success. Their use of wheat and other cereal grains during migration, and cultivated rice prairies on the wintering grounds, has contributed to increased

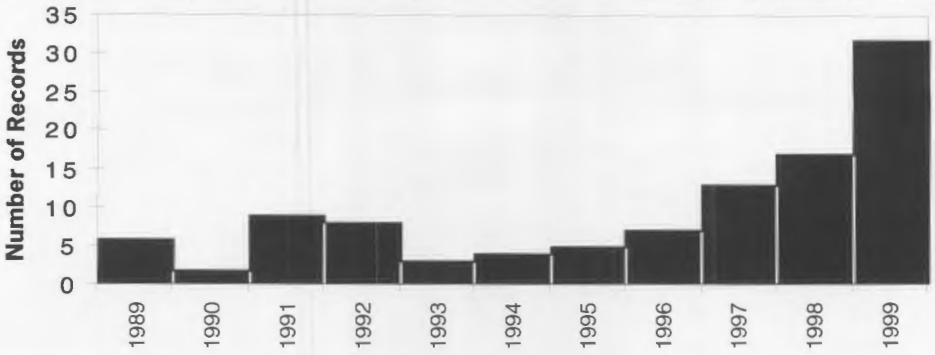

Figure 1. Records (n=106) of the Ross's Goose in Minnesota from 1989 through 1999. The eleven state records prior to 1989 are not shown.

survival rates and fitness for breeding. The establishment of wildlife management areas and refuges, along with increased use of agricultural fields, has shifted migration routes and timing, which directly affects hunting success.

The increased wariness of older geese that have experienced multiple seasons across the continent, along with their tendency to travel in large flocks, makes hunting more difficult. According to Batt (1997) the "expansion of the winter range of mid-continent Snow Geese and the lengthening of fall migration stopovers at northern latitudes has had a significant effect on dispersion of geese, hunter access and exposure to hunting." In an effort to control their numbers, the hunting season has been lengthened and bag limits have been liberalized, but these measures have been largely ineffective.

Occurrences in Minnesota

The Ross's Goose was first recorded in Minnesota at the Round Lake Waterfowl Station, Jackson County, from 18 November to 2 December 1962 (Smart 1963). Nearly all of the early Minnesota records occurred in the fall or winter season (Janssen 1987). This species' status remained Accidental in the state until the late 1980s when it became Casual. Records then began to accumulate rapidly and its status quickly changed from Casual to Regular by the early 1990s (M.O.R.C. 1993).

Beginning in 1989 and throughout the 1990s, a significant increase in Minnesota records of the Ross's Goose recapitulated its population explosion elsewhere in North America. Through 1988 there were only about 11 acceptable records in the state (some of the earliest records were later found unacceptable because hybrids were not excluded, see Eckert 1983). Suddenly, there were six records in 1989 alone, five of these during the spring migration (Glassel and Plunkett 1989). Although there were only two records the following year, there were nine records in 1991 and eight in 1992 (Figure 1). The increase has been most dramatic during the late 1990s: 7 records (total of 9 geese) in 1996, 13 records (25 geese) in 1997, 17 records (29 geese) in 1998, and 32 records (no fewer than 244 geese!) in 1999. All but five of the records in 1999 occurred during the spring migration.

Through 1999, there is a total of 117 acceptable records in the state. At least 9 of our first 11 records (82%) are from fall or winter, but only 18 of the next 106 (17%) are from these two seasons. During the 1960s and 1970s while this species was Accidental in Minnesota, one or two Ross's among a large flock of Snow Geese could easily have been overlooked during migration. In contrast, any white goose would stand out among wintering flocks of Canada Geese and other waterfowl; this probably explains why five of

	Occurrence	County	Reference	Occurrence	County	Reference
Early South	6 Mar. 1991	Olmsted	SR 63:249	18 Sep. 1993	Kandiyohi	SR 66:75
	11 Mar. 1999	Washington	Figure 3	22 Sep. 1998	Dakota	SR 70:206
	17 Mar. 1999	Jackson	Figure 3	30 Sep. 1988	Hennepin	NI 60:181–182
Early North	16 Mar. 1995	St. Louis	NI 67:108	11 Sep. 1997	Lake	SR 70:86
	27 Mar. 1994	St. Louis	SR 66:173	21 Sep. 1996	Aitkin	SR 69:68
	28 Mar. 1991	Traverse	SR 63:249	27 Sep. 1987	Marshall	NI 60:66–69
Late South	23 May 1992	Watonwan	SR 64:203	29 Dec 1965	Wright	NI 38:36–37
	26 May 1998	Faribault	SR 70:206	3 Jan. 1987	Olmsted	NI 59:215
	27 May 1994	LeSueur	SR 66:173	10 Jan. 1965	Olmsted	NI 37:79
Late North	29 May 1998	Aitkin	SR 70:206	9 Oct. 1987	Marshall	NI 60:66–69
	31 May 1997	St. Louis	SR 69:190	10 Oct. 1991	Roseau	SR 64:84
	1 June 1997	St. Louis	SR 70:25	13 Oct. 1989	Becker	NI 61:205

Figure 2. Earliest and latest dates for occurrences of the Ross's Goose in Minnesota during the spring (left half of Figure) and fall or winter (right half of Figure) seasons. The St. Louis County records in spring 1997 refer to different birds at separate locations. References are from this article or from *The Loon*. See Janssen (1987) for the definition of North and South. NI = Note of Interest. SR = Seasonal Report.

those first eleven records are from Silver Lake in Rochester, Olmsted County.

Most of our extreme migration dates for the Ross's Goose (Figure 2) have been established during the 1990s. This is obviously attributable to the sheer number of Minnesota records during this time. However, these dates may also reflect recent expansion of its breeding range, shifts in migration routes, and trends toward overwintering farther north. Ross's have been arriving earlier for nesting due to a general warming trend in the Arctic (Alisauskas and Boyd 1994, Kerbes 1994), so additional early March records can be anticipated in Minnesota.

Why has the seasonal occurrence of the Ross's Goose in Minnesota changed so dramatically in the past decade? This species' increased use of wildlife refuges and grain fields during migration, coupled with an eastward expansion of its breeding range and northward expansion of its wintering range, has apparently shifted spring migration routes. There are also more Ross's Geese migrating through the mid-continent (Prevett and MacInnes 1972, Frederick and Johnson 1983, Wilkins and Cooch 1999), so the chance of occurrence and detection in Minnesota is that much greater.

Influx into West-central Minnesota

On 31 March 1999, Steve Millard found four Ross's Geese feeding in corn stubble with a flock of about two hundred Snow Geese in Section 3 of Lawrence Township, Grant County, and Section 33 of Western Township, Otter Tail County. These were both first county records and represented the start of an unprecedented influx of Ross's Geese into the west-central region (Figure 3). Prior to this spring, Ross's had been recorded in only three west-central counties (Big Stone, Lac Qui Parle and Traverse). During spring migration in 1999, they were found for the first time in Douglas, Grant, Otter Tail, and Wilkin counties. In addition, two of this spring's flocks contained more than the west-central region's previous high count of eleven Ross's Geese in Traverse County on 28 March 1991 (Eckert 1991).

On 2 April 1999, Steve counted a minimum of 18–20 Ross's among a flock of 100+ Snow Geese in southwestern Otter Tail County. Two days later, he found **28–30** Ross's Geese among a flock of

Date	Location	County	No.	Observers	Comments
3/11	Point Douglas	Washington	1	K. Bardon (KB)	with Canada Geese
3/17	South Heron L.	Jackson	1	K. Bardon	mixed flock of geese
3/19	near Boone L.	Meeker	1	D. Floren	no other geese
3/20	Graham L. Twp.	Nobles	**50**	P. Jantscher (PJ)	with 1,500 Snows
3/20–23	Sioux Valley Twp.	Jackson	12	PJ, R. Janssen (RJ)	with 1,800 Snows
3/24	Green Isle Twp.	Sibley	1	C. Mandel	with Canada Geese
3/27	Nunda Twp.	Freeborn	6	PJ, D. Neitzel	with 1,000 Snows
3/27	Colvill Park	Goodhue	1	PJ, D. Neitzel	with 15 Snows
3/31	county line	Grant/Otter Tail	4	S. Millard (SM)	with 200 Snows
3/29–4/01	Maplewood	Ramsey	1	G. Ash, RJ, mob	with 6 Canada Geese
4/01–21	Orange Twp.	Douglas	3–4	K. Bardon, SM	mixed flock at Swim L.
4/02	Hamlin Twp.	Lac Qui Parle	11	W. Marengo	mixed flock of 500+
4/02	"southwest"	Otter Tail	**18–20**	S. Millard	with 100+ Snows
4/03	Shaokatan WMA	Lincoln	**70**	PJ, D. Neitzel	with 1,500 Snows
4/03–05	Nininger Twp.	Dakota	5	D. Smith, KB	with 250+ Snows
4/04	Manston Twp.	Wilkin	**28–30**	S. Millard	with 300–400 Snows
4/06	Boone L.	Renville/Meeker	1	K. Bardon	no Snow Geese
4/06–13	Western Twp.	Otter Tail	4	S. Millard	with 21 Snows
4/07	Manston Twp.	Wilkin	1	K. Bardon	photographed
4/08	Ash L.	Lincoln	2	R. Schroeder	3,310 Snows in area
4/09	Orwell Twp.	Otter Tail	1	S. Millard	with 150 Snows
4/10	Morrison Twp.	Aitkin	2	P. Jantscher	rice paddies
4/10–17	Athens Twp.	Isanti	2–3	K. Bardon	one probable hybrid
4/11	near Evansville	Douglas	1	S. Millard	at WPA; no Snows
4/17	Nunda Twp.	Freeborn	2	P. Jantscher	Bear Lake
4/19–26	Johnson Twp.	Polk	2	J. Joppru, RJ	rice paddies
4/22	Wyanett Twp.	Isanti	several	K. Lafond	South Stanchfield L.

Figure 3. Records (n=27) of the Ross's Goose in Minnesota during the 1999 spring migration. All were documented with either written details or photographs. First county records are underlined.

300–400 Snow Geese in Manston Township, Wilkin County. In all cases, the birds were seen well enough that the identification was straightforward, with no apparent hybrids noted. Hybrids between Ross's and Snow Geese are well known in the literature (Trauger *et al.* 1971, Roberson 1993) but have rarely been documented in Minnesota (Janssen 1982, Eckert 1983).

Steve describes his approach to the identification of Ross's Goose: "When scanning through flocks of Snow Geese, the two things that first bring Ross's to my attention are their smaller size (perhaps 20–30% smaller) and very 'clean' plumage. Adult Ross's always look very white, whereas Snows tend to look smudged. The smaller, stubbier bill with a vertical base is detectable on Ross's Geese at all ages. These features, in combination with a more rounded head shape, are helpful when the entire bird cannot be seen. And of course, Ross's lacks the 'grinning patch' on its bill. After a few observations where direct comparisons can be made, Ross's Geese are fairly easy to pick out from a flock of Snows. The size difference is just as apparent in flight, perhaps even more so, than it is on the ground."

Compared to young Snows, juvenile Ross's look much whiter overall, since their gray feathering is generally confined to the crown, hindnape and upper back (Scott 1995). They usually show a distinct gray line through the eye (Ryder and Alisauskas 1995). More on identification can be found in Simon (1978), Mattson (1988), and Scott (1995).

Record High Counts in Minnesota

During five consecutive weekends in spring 1999, Paul Jantscher found Ross's

Geese in nearly every sizeable flock of Snow Geese that he examined in Minnesota. These observations were scattered across six counties. The largest flocks contained 50 or more Ross's! His earliest sighting this year was on 20 March (Figure 3), when good numbers of Snow Geese were encountered in Jackson (1,800) and Nobles (1,500) counties. The total of 12 Ross's in the Jackson County flock was close to the previous high count for Minnesota — 13 Ross's near Worthington, Nobles County, on 29 March 1992 (Eckert 1992). Far exceeding this record was Paul's count of **50** Ross's Geese among the 1,500 Snows in Graham Lakes Township, Nobles County, on 20 March 1999.

Then, during a western Minnesota trip to track the progress of the waterfowl migration, Paul Jantscher and David Neitzel observed a large flock of about 1,500 Snow and Ross's geese on 3 April 1999. This flock was feeding and resting in sections four and nine of Shaokatan Township, just to the southeast of Shaokatan W.M.A. in Lincoln County. The flock was spread out over several hundred yards in these two fields and even up onto the section road.

Paul and David write: "As we approached the flock, about 100 geese flew in to join them. As they flew by at about 150 yards, we easily picked out seven Ross's flying with the Snows. We drove to within 200–250 yards of the flock and quietly observed them for 20–25 minutes until heavy fog rolled in. Groups of two to four Ross's were common every 15–20 yards along the ground. Given the density of the flock on the ground, and the constant milling of the birds on the ground and in the air, it was impossible to get an exact count of the Ross's. However, they were distributed throughout the flock and our *very conservative estimate* was a minimum of **70** Ross's Geese!"

"Similar to the Ross's Geese we had documented in Freeborn and Goodhue counties on 27 March 1999, these were noticeably smaller than the Snows whether walking beside them or flying with them (about two-thirds the size of the Snow Geese). On the wing, their smaller size, shorter necks and tiny bills were very evident. The plumage of the Ross's was like the Snows, white with black wing tips. In addition to our regular binoculars, we studied them on the ground through my Kowa TSN-2 spotting scope with a 20x eyepiece and Paul's Celestron 20x80 binoculars. Their bills were pink with dark bases, lacked the 'grinning patch' seen on the Snows, and had the classic short, deep, triangular shape. It was hard to see any warty protuberances on their bills, but some of the bill bases appeared textured."

Paul and David have extensive experience with "white" geese and have seen dozens of Ross's at close range and in the hand, either while bird watching or waterfowl hunting. In recent years, they have seen Ross's in Manitoba, Minnesota, and North and South Dakota, including pure flocks of 15–20 Ross's Geese in northwestern Manitoba. However, no one has previously observed more than 13 Ross's Geese in one Minnesota location and the numbers reported here are extraordinary. Although it is likely that Ross's Geese will continue to have Regular status in the state, there has never been a period like the present, where it is relatively easy to locate and study these beautiful, diminutive white geese in Minnesota.

Acknowledgments

We thank the many observers who responded to our requests for written details about their records. Anthony Hertzel reviewed an earlier draft and made many helpful suggestions.

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BIRDING BY HINDSIGHT

A Second Look at Identification References

Kim R. Eckert

At the time of this writing (mid-January), you've probably already been over to Blue Lake a dozen times to see that Tufted Duck. It's certainly a great bird, but it still looks the same as it swims around in those less-than-pristine waters. So now what to do until spring migration gets underway in a couple months? Drive north to look for boreal specialties? Perhaps, although the owling and finching thus far during this third consecutive mild winter are not all that spectacular. Or fly south to Texas to look for exotic strays along the Rio Grande? Not a bad idea, although after looking at Green Jays a dozen times they become as routine as Tufted Ducks. (Also routine are those 70 degree temperatures you have to put up with day after day.)

Here's another idea. Stay home and study up on those bird identification challenges you've been struggling with over the years — that way, you'll be ready to face with confidence all those migrants which will be returning soon. Regular readers of this *Hindsight* series certainly know by now that this involves much more than thumbing through your trusty *National Geographic* field guide. Indeed, one of the articles in this series (see ***The Loon*** 70:160–165) was an annotated listing of books on identification devoted to specific bird groups. This present article is a supplement to that: a list of articles in various journals which also discuss specific ID problems.

As with the other articles in this *Hindsight* series, only information on birds which have been found in Minnesota is included. And note this is hardly intended to be your assigned reading list to be completed by the vernal equinox. This listing is something to refer to from time to time when you find yourself in need of additional "beyond-the-field-guides" ID information on a particular species. Note as well this list is more subjective than it is comprehensive. Excluded are some articles which I consider to be of limited value, and there are probably other ID articles I am unaware of which would be of use to Minnesota birders — and which I would certainly be interested in hearing about from readers.

A total of eight journals are referred to, some of them easier to find than others. To find those less familiar journals and those older articles listed, it would probably be best to contact myself or someone else with a library of birding journals who might then be able to lend you the articles to read or photocopy. These periodicals are:

American Birds, Field Notes, North American Birds: formerly published by National Audubon Society; now a quarterly publication of American Birding Association (P. O. Box 6599, Colorado Springs, CO 80904) and currently called *North American Birds*.

Auk: quarterly journal, primarily of sci-

entific articles, of the American Ornithologists' Union (Division of Ornithology, National Museum of Natural History, Washington, D.C. 20560).

Birders Journal: bimonthly Canadian journal (8 Midtown Drive, Suite 289, Oshawa, ON, Canada L1J 8L2).

Birding: published bimonthly by American Birding Association (address above).

Birding World: monthly British journal (Stonerunner, Coast Road, Cley-next-to-the-Sea, Holt, Norfolk, UK, NR25 7RZ); not to be confused with *Birder's World*.

British Birds: another monthly British journal (Fountains, Park Lane, Blunham, Bedford, UK, MK44 3NJ).

The Loon: the quarterly journal of Minnesota Ornithologists' Union.

Western Tanager: monthly newsletter of Los Angeles Audubon Society (7377 Santa Monica Blvd, West Hollywood, CA).

Without further ado, following are the identification articles, listed under the bird groups they discuss:

Loons
Birding 20:12-28
British Birds 79:365–391
Horned and Eared grebes
American Birds 46:1187–1190
Western Tanager May 1985, p. 1–2
Western and Clark's grebes
Birding 27:54–55
The Loon 61:99–108 (reprinted in *Birding* 25:304–310)
Snowy Egret and Little Blue Heron
American Birds 45:330–333
Night-Herons
American Birds 42:169–171
Birding 31:410-415
Glossy and White-faced ibis
Birders Journal 1:241–256
Birding 8:1–5
The Loon 67:123–129
Ross's Goose
Auk 88:856-875
Birding 25:50–53
Swans
Birding 23:88-91
Birding 26:306–318
Female-plumaged ducks
American Birds 42:1203–1205
The Loon 68:168-172
Teal
Birding 23:124–133
Tufted Duck
Birding 30:370–383
Goldeneyes
Birding 18:17–27
Common and Red-breasted mergansers
American Birds 44:1203–1205
Hawks
The Loon 70:110–115
Eagles
American Birds 37:822–826
Accipiters
American Birds 33:236–240
Birding 16:251–263
Red-tailed Hawk
American Birds 39:127–133
American Birds 40:197–202
Gyrfalcon
Birding 32:22–29
Birding World 6:67–74
Shorebirds
The Loon 67:100–103
The Loon 68:121–124
Yellowlegs
Birding 14:172–178
Semipalmated, Western, and Least sandpipers
American Birds 38:853–876 (and reprinted 41:212–236)
White-rumped and Baird's sandpipers
Birding 19(2):10-13
Dunlin and Curlew sandpipers
American Birds 44:189–192
Dowitchers
Birding 15:151–166
Birding World 8:221–228
Jaegers
Birding 28:129–131
Birding 29:372–385
Gulls
The Loon 67:157–161
Laughing and Franklin's gulls
Birding 26:126–127
Black-headed and Bonaparte's gulls
American Birds 47:1156–1159
Mew and Ring-billed gulls
American Birds 34:111–117

Birding 25:386–401

Thayer's and Iceland gulls
Birders Journal 7:305–309
Birding 12:198–210
Birding 23:254–269

Glaucous-winged Gull
The Loon 68:3–13

Common, Arctic, and Forster's terns
American Birds 41:184–187
Birding 25:94–108

Owls
The Loon 69:155–160

Woodpecker drumming
Birding 24:351–355

Wood-Pewees
Western Tanager December 1983, p. 1–3

Empidonax flycatchers
Birding 17:151–158
Birding 17:277–287
Birding 18:153–159
Birding 18:315–327

Ash-throated and Great Crested flycatchers
American Birds 36:241–247
The Loon 63:4–11

Tree, Northern Rough-winged, and Bank swallows
Birding 17:209–211
Birding 28:111–116

Bluebirds
American Birds 46:159–162

Warbler songs and call notes
Birding 25:159–168
The Loon 70:52–57

Fall warblers
The Loon 69:95–99

Orange-crowned, Yellow, Hooded, and Wilson's warblers
American Birds 45:167–170

Pine, Bay-breasted, and Blackpoll warblers
Birding 15:219–222
Birding 28:284–291

Connecticut, Mourning, and MacGillivray's warblers
Birding 22:222–229

Tanagers
American Birds 42:3–5
Western Tanager November 1983, p. 1–4

Chipping, Clay-colored, and Brewer's sparrows
Birding 28:374–387

Le Conte's Sparrow
Birding 24:70–76

Longspurs
Birders Journal 7:68–93

Rose-breasted and Black-headed grosbeaks
Birding 23:220–223

Lazuli and Indigo buntings
Birding 8:135–139

Meadowlarks
Birding 8:349–352

Rusty and Brewer's blackbirds
Birders Journal 4:97–101

Baltimore and Bullock's orioles
Birding 30:282–295

Purple and Cassin's finches
American Birds 40:1125–1127
Birding 8:231–234
Birding 23:157–158
The Loon 60:3–9

Red Crossbill
Birding 27:494-501

Redpolls
Auk 109:771–785
Birders Journal 5:44–47
Birding 27:446–457
Birding World 9:65-69
British Birds 84:41–56
The Loon 69:214–216

Songs and calls
The Loon 68:62-66
The Loon 69:32–37
The Loon 71:42–46

"Calendar" ID
The Loon 67:40–44

Range and habitat ID
The Loon 70:232–237

There's certainly more to be written about all this, more articles I could have listed — e.g., not included here are some articles on species which have strong potential for being seen in the state eventually (see ***The Loon*** 67:232–237 and 68:232–237). But, no time now, I have to finish packing. By the time you read this, I will probably be enduring the routine of yet another day of Green Jays and temperatures in the 70s.

8255 Congdon Blvd., Duluth, MN 55804.

BOOK REVIEWS

HANDBOOK OF THE BIRDS OF THE WORLD, VOL. 5. Barn-owls to Hummingbirds. J. del Hoyo, A. Elliott, and J. Sargatal, editors. Lynx Edicións, Barcelona, Spain, 1999, 759 pp. $185 (postage and handling included). These and future volumes are available from specialty bookstores or from the publisher: Lynx Edicións, Passeig de Grocia, 12, 08007 Barcelona, Spain.

The latest in a series that is projected to be twelve volumes when completed, this book admirably continues the standards of excellence set by the first four. This volume treats ten families in three orders: *Strigiformes* (owls), *Caprimulgiformes* (oilbird, owlet-nightjars, frogmouths, potoos, and nightjars), and *Apodiformes* (swifts, tree-swifts, and hummingbirds). It is written by 38 authors; the 76 plates were painted by 19 artists; and there are 406 photographs and 758 species distribution maps. It is a magnificent book, imposingly large and heavy, made with high quality paper, well constructed, and densely packed with information and illustrations. It continues the series' status as a superb reference and a very well illustrated work. And, in its rich family accounts it makes excellent recreational reading. It strikes me again that by creating a work in which so many of the authors are active researchers (rather than simply information compilers), the editors provide us with a more vibrant, less dry product.

The 16 page Foreword, "Risk Indicators and Status Assessment in Birds," by Nigel Collar, is an essay on avian conservation biology. It focuses on the new IUCN (International Union for Conservation of Nature; IUCN — The World Conservation Union) criteria for evaluating probabilities of extinction. The new criteria are an improvement, being less subjective than earlier versions. The science is not presented cleanly here, however. The first two figures show us that range size and population size are small among threatened species. This is fine as a generality, but it is circular reasoning to use these criteria to categorize species and then quantify the ways in which the two are correlated. While it may not have been done this way, the prominent use of these factors in the assessment process implies otherwise, and once again conservation biology seems vulnerable to complaints of sloppy science. As a member of the profession, perhaps I am overly sensitive to such gaffes, but given the difficult goals, we must do our part with rigor.

For those not familiar with this series, each bird family is initiated with a broad, richly illustrated overview of the entire family. For example, for the *Strigidae* (typical owls) this overview is 76 pages long, and it includes 110 photographs illustrating not just many owl species but also a lot of ecology and behavior. Family overviews are followed by individual species accounts, which include: plates illustrating each species (and often distinctive subspecies as well); detailed, multicolored distribution maps; and the text, giving summaries of common names in four languages, taxonomy, subspecific variation and distribution, habitat, food and feeding, breeding, movements, status and conservation, and references. This volume concludes with six pages of references of scientific descriptions (abbreviated), 56 pages of general references, and a 13 page index. The term "exquisite"

comes to mind for so many of the plates and photographs that I can't single any group out for special recognition.

Unfortunately, there is no diagram of some of the wonderful aerial displays found in the *Trochilidae* (hummingbirds). In the plates, the *Caprimulgiformes* are illustrated both at rest and in flight; the *Apodidae* (swifts) are illustrated in flight; and the *Strigiformes* (owls), *Hemiprocnidae* (tree-swifts), and *Trochilidae* (hummingbirds) are all illustrated perched. Details of the contents of previous volumes can be found in earlier reviews (***The Loon*** 67:103–105, 69:217–218, 70:238–240).

In the first few volumes I was astounded to find no typographic errors, an incredible achievement for so massive a work. Here I find several, however, bringing this superhuman achievement down a little toward the plane of us mortals. Also, Plate 75 is fuzzy, as are some of the photos in the *Apodidae* (swifts) (but this may be due to the difficult conditions under which swifts are photographed). Now that we've come to expect such quality from the publishers, it may be getting easier to uncover these few small flaws.

A stylistic choice regarding references made at the outset of the series can be quite aggravating. For both family and individual species accounts, all references are given in brief, as author and date, only at the end of each section, rather than embedded in the text as is the norm for ornithological literature. An example helps show how difficult it can be to retrieve information using this style.

On pages 597–603 we find the *Trochilidae* (hummingbird) genera *Agyrtria*, *Polyerata*, and *Saucerottia* separated from the genus *Amazilia*. Why? This is new and interesting. Hummingbirds are generally believed to be overly split at the generic level: too many genera are recognized, and we expect that modern revisions will result in fewer genera through appropriate lumping. Yet *Amazilia* is what might be called a "trash can genus" into which too many lineages may be inappropriately squeezed. No direct reference is made in the species accounts to discussion of this substantial generic change.

Going back and reading the six-page Systematics section of the family account shows (p. 472) that "A recent biogeographical revision of the taxa formerly treated superficially under the genus *Amazilia* postulated a polyphyletic status and various centers of origin around the periphery of central South America."

This is a little more helpful than the complete absence of discussion of this generic change in the species accounts, but now I'd really like to see the appropriate primary literature. Biogeography can provide guidance in discerning relationships, but taxonomic revisions require character-based evidence, here presumably from morphology. However, due to the style used here, which precludes a reference following this statement, all I know is that a recent revision exists on this subject. How to find it?

The *Trochilidae* family account is about 67 pages of detailed information, and all the references are given in an alphabetical burst at the end. So I must now begin slogging back and forth between about 150 names and dates and the approximately 8,000 complete references at the back of the book, desperately seeking the one article I'm hoping to find. After twenty minutes of this I'm forced to give up without success, wondering if this change is based on an unpublished (1998) manuscript entitled "Revision of family *Trochilidae*," by one "Walters, M." If so, then I'm doubly frustrated, because such changes should go through peer review before being adopted. In short, then, information retrieval in this series can be very difficult, which does not suit a reference work. The Foreword does not operate under this style. I would argue that the savings made in space (each reference appears only once) costs far too much in user inconvenience and lost time, and I would urge the editors to adopt the field's usual style at least in the family accounts and perhaps anywhere that more than 20–30 refer-

ences are given in the species accounts.

Another consideration comes from stepping back for a moment to understand why I was interested in the systematic and taxonomic questions associated with the reference example given above. Outside of the hermits (subfamily *Phaethornithinae*; 34 species), hummingbird relationships between the subfamily and genus levels remain unclear (specifically, in the subfamily *Trochilinae*, with 294 species and 96 genera). Resolution of these relationships above the species level will be of great interest, for the *Trochilidae* represent one of the world's most spectacular avian radiations. With their origins in the Neotropics and restricted to the New World, hummingbirds diversified to occupy a wide array of ecological niches available among Neotropical angiosperms (flowering plants). The family's ancestor acquired some key evolutionary innovation, probably the specialized flight (hummingbirds have a powered upstroke) that enabled hovering at nectar sources, which opened the evolutionary door for an impressive adaptive radiation.

Probably due to resource (food) distribution in space and time, hummingbird mating systems are polygynous, with males competing intensely for females. The females choose which male they wish to mate with, often based only on display, and then go off and raise the young single-handedly. This results in intense sexual selection driven by female choice, giving advantages to males with attractive plumage, vocalizations, and displays. As a consequence of mating systems and feeding specializations, hummingbirds display a truly remarkable array of plumage, bill morphologies, and behaviors, all arising within the tight constraints of small body size and specialized flight requirements.

In addition, their simplified diets and digestive systems have caused them to be excellent subjects for behavioral studies of energetics and territoriality. Some hummingbirds have also been viewed as models of coevolution because they and the plants they specialize upon exhibit mutually beneficial adaptations (e.g., a very long bill on a hummingbird that specializes on a flower with a very long corolla on a plant that requires hummingbirds for its pollination). In short, this is one very interesting family of birds. But I don't pick very much of this up from the family account, causing me to realize that most readers will not come away from this section with precisely the overview that they should get from it. I believe, therefore, that it would be useful to include a few introductory paragraphs to each family overview abstracting key points of the group.

These, however, are only small considerations of where improvements might be made, given in the face of a considerable degree of excellence. As with previous volumes, I find the caliber of this work to exceed anything else existing on the subject, and believe that despite the seemingly high per-volume cost, these books represent good value. **Kevin Winker, University of Alaska Museum, 907 Yukon Drive, Fairbanks, AK 99775.**

PETERSON FIRST GUIDE TO BIRDS OF NORTH AMERICA, Roger Tory Peterson, Houghton Mifflin, Boston MA, 1998, 128 pages with index, $5.95.

This simple field guide to birds, suitable for beginners, has been dressed up and re-issued by its publisher. In it, 188 species of North American birds are given concise treatment.

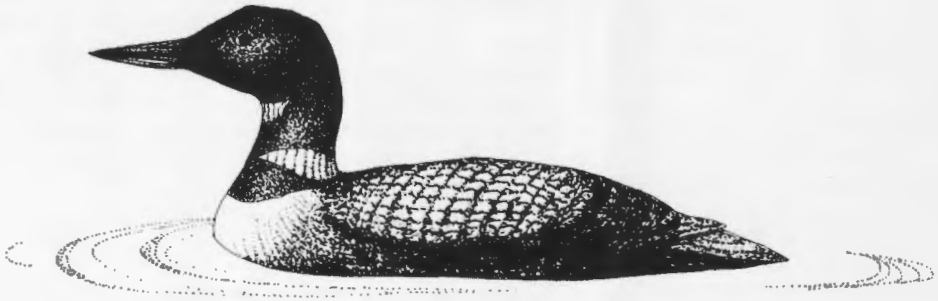
The artwork will be familiar to you; it comes from the standard and well-known Peterson guides. This printing of those illustrations, however, lacks brightness. That probably is not a problem for the person who would find this book useful. The text is brief and clear, sufficient to answer basic questions. There are no range maps.

Both eastern and western species are covered in this pocket-sized guide ($3\frac{3}{4}$ by $7\frac{1}{4}$ inches and a quarter-inch thick).

The book opens with several helpful pages of basic information on how to identify birds. That is followed with four

pages of bird silhouettes, another helpful addition.

At its low retail price, this book is an easy gift for a child or a neighbor in whom you might want to plant an interest in birds. One should plan to follow quickly this guide with a more advanced version, however, for as often happens in efforts to reduce complex to simple, abbreviation raises more questions than it answers. **Jim Williams, 5239 Cranberry Lane, Webster, WI 54893.**



NOTES OF INTEREST

WESTERN TANAGER IN GOODHUE COUNTY — On 8 May 1999 at Hok-si-la Park in Goodhue County, a bird landed in a tree at eye level. The tree was on the bank of the Mississippi River at the park. It was mid-morning, a cloudy, cool day. When it caught my eye, I first thought goldfinch because I saw bright yellow and black. I noted the black back and tail, and white wing bars. As I was thinking this is too big for a goldfinch, it turned to reveal its red head and I knew immediately it was a Western Tanager. I have seen them in Wyoming and Colorado, so recognized the bird before looking at it in the *National Geographic Field Guide*. I watched it for approximately 30 seconds before it flew north up the line of trees on the river. I let all the birders I met know that I had seen it. Bruce Baer and others relocated it the following day. **Pat Pagel, 99 County Road 81, Wabasha, MN 55981.**

EARLY VARIED THRUSH IN COOK COUNTY — I was walking in the woods near our house west of Grand Marais on the morning of 23 September 1999, when I noticed a robin-sized bird land in the top of a 60-foot spruce tree. When I looked at it with binoculars, I was surprised to see a Varied Thrush. It was in plain view and easily recognized with an eyebrow line, wing bars, and a dark smudgy band on an orangish breast. It was probably a female or young bird.

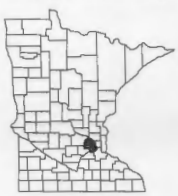
The thrush must have noticed me because it then made a long "scree" sound much like a Hermit Thrush does when it is agitated, but this sound was more drawn out and louder than the sound made by the Hermit Thrush. I have seen Varied Thrush before in Cook County, but those sightings were in October or November. *Birds in Minnesota* by Janssen (1987) gives the earliest dates for a Varied Thrush as 20 September (Duluth) and 26 September (Hennepin County).

More recently, this species has been found on 16 September 1990 (Wilkin County) and 16 September 1997 (Cottonwood County). **Ken Hoffman, 196 County Road 44, Grand Marais, MN 55604.**

CHESTNUT-COLLARED LONGSPUR IN AITKIN COUNTY — On 16 November 1997 and again on 17 November I observed a Chestnut-collared Longspur in Aitkin County. Description of the bird in the field: cheek patch is not as dark as eye stripe. Back and top of head streaked dark brown/black with creamy tan. Dark eye with slight eye ring. Small bill, gray over light. Over and under eye, stripes buffy-tan with darker stripe through the eye. Chin and throat buffy with dark streak on each side. Less streaking on the nape. Lower back streaked, but more gray than the upper back. Forked tail was dark with white outer feathers. Undertail was white. Legs and feet black. Chest buff graduating to whitish belly with possible streaking on sides and upper chest. Belly white to gray, slight streaking and fluffy from the cold weather. Wings and tail feathers dark and edged with buff — not worn. Tail dark with white triangle shape on each side when spread.

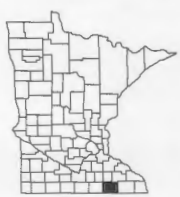
The bird walked on the ground and seemed quite tame. **Cindy Butler, HCR 2 Box 102, Tamarack, MN 55787.**

UNUSUAL COWBIRD BEHAVIOR — On 20 May 1998, I was visiting my parents in Golden Valley, Hennepin County. While taking my morning walk, I noticed a flurry of activity on the sideview mirror of a car parked in a driveway. Looking closer, I observed a male cowbird that seemed to be enamored of himself clinging to the mirror. I realized that he must be trying to rid his territory of the intruder in the mirror. He would perch on the mirror for a second, then flutter down in front of it, then back up to his perch on top. I watched him for about five minutes of this continuous activity until finally I had to move on.



When I went out two days later, I saw the same cowbird apparently attacking a different intruder in the sideview mirror of another car parked across the street. I watched for a couple of minutes and finally decided the bird wasn't going anywhere soon, so I went back to my parents' apartment, got my camera, and returned to the driveway. I took one picture of him, but unfortunately a dog next door began barking and the bird flew. **Barbara Franklin, 5825 St. Croix Ave., Minneapolis, MN 55422.**

EURASIAN COLLARED-DOVE IN MOWER COUNTY — Ann and Anthony Hertzel reported finding an Eurasian Collared-Dove on 29 May 1999 along State Highway 218 in Mower County, southeast of Blooming Prairie. I located two birds there the following afternoon at approximately 3:30 P.M. and photographed one of them as it perched on a telephone wire. At least one of the birds was calling repeatedly, a soft, clear, monotonous "coo-cooo-coo" that was slightly accented on the second syllable. The Ringed Turtle-Dove has a rolling, raspy call.



They perched side-by-side for a couple of minutes, then one of them flew into a grove of conifers while the second bird remained on the wire and continued calling.

Most of the observation time was spent photographing this second bird, although I also had excellent looks at its undertail pattern. The black on its proximal undertail appeared to extend completely across all rectrices. The rest of the tail appeared pale gray-brown with a broad whitish terminal band. Ringed Turtle-Dove shows white on the outer web of its outermost rectrix and has white undertail coverts.

Kay and Dick Smaby reportedly talked to the landowner who told them that (the same?) a pair of these doves was at this location in 1998. Copulation was observed by the Smabys, but nesting was not confirmed.

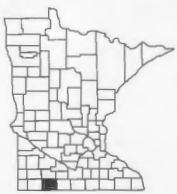
Peder Svingen, 2602 E. 4th Street, Duluth, MN 55812–1533.

SUMMER TANAGER IN SWIFT COUNTY — On 8 May 1999, I found an adult male Summer Tanager along the Pomme de Terre River in Swift County, north of the County Road 51 bridge. At first, it appeared to be just another piece of trash along the river bank, but when I focused my binoculars, I was surprised to see a completely red bird except for the eye, bill, and feet. I recognized it immediately as a Summer Tanager sitting in the tall grass near the edge of the river. It flew back and forth, and up and down, among the grasses along the water's edge, presumably picking up the few bugs that were out in the cool weather.

The bird was slightly smaller than a robin and was bright red, except for the dark eye, greenish bill, and dark legs. The secondaries when fluffed out showed an iridescent greenish cast to these feather edges. I watched the bird for about twenty minutes. Just after noon as the clouds began to break, the bird disappeared and I was unable to relocate it. I was able to take several pictures. **Al Bolduc, 7001 Westshore Drive, Edina, MN 55435–4038.**

Editor's Note: This Summer Tanager was a first Swift County record and one of only a very few reports documented during the remarkable invasion of 1999.

A FEMALE BLACK-HEADED GROSBEAK IN JACKSON COUNTY — On 13 May 1999 during a Jackson County Big Day, I encountered an excellent migration of passerines at Anderson County Park during the late morning. One of the female grosbeaks in the park showed relatively bright, buffy-orange underparts with a complete lack of streaking across the mid-breast. I suspected Black-headed Grosbeak (*Pheucticus melanocephalus*) and looked for other field marks that might confirm the identification.



Its entire bill was dusky gray in color and very large, as expected. During the summer of 1998, I had reviewed Morlan's (1991) identification article, so I remembered to look for a darker upper mandible. However, I could not recall whether or not this was a reliable criterion for identification of Black-headed Grosbeak in the spring (Morlan states that bill color of fall and winter grosbeaks may be variable, so it is actually more reliable in spring and summer). This grosbeak's upper mandible did not appear significantly darker than the rest of its bill, but it should be noted that I was looking up at the bird from a 45 degree angle.

Its superciliary stripe was buffy and its dark brown facial patch was bordered with buff, producing less contrast on its face compared to the female Rose-breasted Grosbeaks (*P. ludovicianus*) in the park. Its upperparts were a mixture of brown and buff. The tail and undertail coverts were obscured by leaves and could not be seen. I looked again at its underparts and reconfirmed the complete lack of streaking on the mid-breast. Its flank streaking was noted to be thin, crisp, and pencil-sharp, unlike the thick and blurry streaks that extended down the flanks and across the entire breast of the female Rose-breasteds. The bird's legs were never seen and when it flew off toward the south, I was unable to see its wing linings. A search of the south end of the park failed to relocate the bird.

Female Rose-breasted Grosbeak was ruled out because it would have a pinkish bill, whitish supercilium, and much stronger facial contrast produced by white surrounding

its facial patch. Rose-breasteds also show relatively blurred (not as sharply defined) and thicker streaks across the entire upper breast, as well as down the flanks. They typically have a pale tan to light buff wash across the upper breast, which becomes whitish on the lower breast and belly. In contrast, female Black-headed Grosbeaks show a dusky gray bill that is usually darkest on the upper mandible. They tend to show buff rather than white on the supercilium, with less contrast around the facial patch. The breast and belly on female Black-headeds are brighter buff to orange-buff in color, with relatively thin, pencil-sharp, crisp streaks that are usually restricted to the sides of the upper breast and the flanks.

This is not the first record of this Casual species for Jackson County. It is one of the first acceptable records for a female Black-headed Grosbeak in Minnesota. I have seen female Black-headeds many times in Arizona, California, and North Dakota while living in those states, plus a few times in British Columbia, Idaho, Wyoming and west Texas. I am well aware of the identification problems between these two grosbeak species, most of which are thoroughly reviewed in the references listed below.

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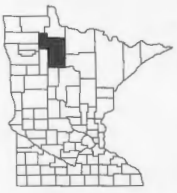
Peder Svingen, 2602 E. Fourth St., Duluth, MN 55812–1533.

RED-BELLIED WOODPECKERS IN BELTRAMI COUNTY — We first saw a female Red-bellied Woodpecker at our feeders on 16 May 1999. Eventually, both a male and female were visiting our feeders from early June until the end of July. During August and early September, we again only noted the female's presence. There was never any sign of juvenile birds and we did not find a nest site.



The female had a grayish-tan face, crown and breast, with a red nape and a lighter red patch on its forehead. The male had a red nape, crown, and forehead, and a tan face. Both birds had black-and-white barring on the back and wings and tan breasts. In good light and at close range a reddish wash on the belly was noticeable on both birds. Their size was similar to the Hairy Woodpeckers that also visit the feeders. Their call was a rolling "churr" sound identical to the sounds on our tapes and similar to what we recall hearing in the south. During June and July, they would take seeds and go to the same location on the trunk of one of our trees. They appeared to be hiding seeds on the trunk.

Both birds were gone by mid-September. **Pat & Bob DeWenter, 5127 Pincherry Rd. NE, Bemidji, MN 56601.**

Editor's Note: Though fairly common in southern Minnesota, the Red-bellied Woodpecker is Casual in the northwestern part of the state. There are still no records for Clearwater, Hubbard, Koochiching, or Red Lake counties.

YET ANOTHER ARCTIC TERN IN DULUTH — On 21 May 1999 at approximately 6:30 P.M., while scanning the harbor from on top of the highest dirt pile near the southwest corner of the 40th Avenue West/Erie Pier impoundment in Duluth, I heard some terns calling and watched them approach from the east. One looked especially bouyant, its body moving up and down with each wing stroke as it flew directly toward me. At a distance of about 100 feet, it wheeled to the right, revealing distinct contrast between its gray underparts (body) and its whitish underwings. It then passed directly overhead and I noticed that its flight feathers appeared entirely translucent. At this point, I suspected Arctic Tern (*Sterna paradisaea*) and carefully studied its wing pattern in direct comparison to several Common Terns (*S. hirundo*) flying nearby.

I had excellent looks as it circled my position for at least five minutes and passed overhead several more times. The upper wing surface was uniformly gray, without the Common Tern's dark wedge on its primaries. The trailing edge of its underwing showed a thin, sharply demarcated and distinct black line on the outer wing that was unlike the Common Tern's much thicker, smudged, trailing edge. Its rump and tail streamers appeared white. The gray of its underparts extended onto its face, which contrasted with the white feathering that separated this gray from its black cap. Bill color was not noted. In profile, its wings appeared longer and more slender than Common Tern's. Its neck looked very short in comparison.

This is the seventh year that Arctic Tern has been recorded in Duluth during spring migration. Previous occurrences were in 1973, 1974, 1978, 1983, and 1985, plus two records in 1997 (***The Loon*** 69:171, 70:59–61). **Peder Svingen, 2602 E. Fourth St., Duluth, MN 55812–1533.**

Corrections to "The Season"

Volume 68

Add **Spotted Towhee** 8/18 **Pine** (St. Croix S. P.) BSe, Fall 1995 report (***The Loon*** 68:90–113).

Volume 70

Add **Double-crested Cormorant** through 1/11 Hennepin (Golden Valley) SC, Winter 1997–98 report (***The Loon*** 70:141).

Change location for **American Woodcock** from 2/28 Houston FL to Winona, Winter 1997–98 report (***The Loon*** 70:145).

Delete the **LESSER BLACK-BACKED GULL** on 4/14 St. Louis (8) KB, Spring 1998 report (***The Loon*** 70:214).

Add **Marsh/Sedge Wren (*Cistothorus, sp.*)** 1/13 Hennepin (St. Louis Park) SC, Winter 1997–98 report (***The Loon*** 70:148).

Add **YELLOW-THROATED WARBLER** 9/6 Anoka (Rice Creek Park) TBr *et al.*, Fall 1997 report (***The Loon*** 70:82–105).

Add **Chestnut-collared Longspur** 11/16–17 **Aitkin** CB, Fall 1997 report (***The Loon*** 70:102). Ties the latest date on record for the state.

Change date for **Clay-colored Sparrow** to 4/21 Hennepin SC and delete reference to earliest date in the state, Spring 1998 report (***The Loon*** 70:224).

Change date for **White-winged Crossbill** to 3/2–4/14 Olmsted BBr, CH, Spring 1998 report (***The Loon*** 70:227).

Volume 71

Add **Lark Bunting** 9/28 St. Louis (40th Ave. West in Duluth) SR, Fall 1998 report (***The Loon*** 71:75–101).

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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;* conduct field trips; encourage and sponsor the preservation of natural areas; and hold seminars where research reports, unusual observations and conservation discussions are presented. We are supported by dues from members, affiliated clubs and special gifts. The MOU wishes to point out that 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 3 ½ inch 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 "The Season" should be sent promptly at the end of February, May, July and November to Peder Svingen. See key to the "The Season".

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