The LOON

SPRING 1987

VOLUME 59 — NUMBER 1

The LOON Minnesota's magazine of birds, is published four times each year by the **Minnesota Ornithologists' Union,** the statewide bird club. Permanent address: J. F. Bell Museum of Natural History, 10 Church St. S.E., University of Minnesota, Minneapolis, MN 55455-0104. Anyone interested in birds may join. Any organization with similar aims may affiliate. All MOU members receive our two quarterly publications: ***The Loon*** and the **MOU Newsletter.**

MEMBERSHIPS AND SUBSCRIPTIONS: Evelyn Stanley, 213 Janalyn Circle, Minneapolis, Minnesota 55416. To join the MOU and receive both MOU publications, donate $12.50 for a regular yearly subscription. Or other classes of membership that you may choose are: Family $15.00 yearly; Supporting $20.00 yearly; Sustaining $30 yearly; Life $150. Canadian and Foreign Subscriptions, $20.00 yearly. **All memberships are on a calendar year basis.** Also available: back issues of ***The Loon*** ($3.00 each ppd.) and MOU checklists of Minnesota birds (minimum lots of 20 for $5.00 postage paid). Gifts, bequests, and contributions to the MOU Endowment Fund should also be sent to the treasurer.

EDITOR OF *THE LOON*: Robert B. Janssen, 10521 S. Cedar Lake Rd., #212, Minnetonka, MN 55343 (phone 612-546-4220). The editor invites articles, short notes, and illustrations about Minnesota birds. See back cover for details. **Associate Editor:** Kim R. Eckert, 9735 North Shore Dr. Duluth, MN 55804.

"The Season" section of ***The Loon*** publishes reports of bird sightings 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 to "The Season," request the report forms from the **EDITOR OF "THE SEASON," Kim Eckert, 9735 North Shore Drive, Duluth, Minnesota 55804 (phone 218-525-6930).**

EDITOR OF THE MOU NEWSLETTER: Bette Bell, 5868 Pioneer Rd. S., St. Paul Park, MN 55071. Publishes announcements and reports about activities of the MOU and its affiliated clubs. (Club officers should keep both MOU editors informed.)

MOU OFFICERS

PRESIDENT: Bob Holtz, 2997 N. Chatsworth, St. Paul, MN 55113.

FIRST VICE PRESIDENT: Jo Blanich, Box 96, Crosby, MN 56441

SECOND VICE PRESIDENT: Mike Mulligan, 8501 Tiqua Circle. Chanhassen, MN 55317

SECRETARY: Marion Cashdollar, 9400 Cedar Ave. #102, Bloomington, MN 55420.

TREASURER: Ed Kuehnel, 2731 MacKubin St., #39, Roseville, MN 55113

MOU COMMITTEE CHAIRPERSONS

MINNESOTA ORNITHOLOGICAL RECORDS (M.O.R.C.): Robert B. Janssen, 10521 S. Cedar Lake Rd. #212, Minnetonka 55343. RESEARCH AND RECORDS: Janet C. Green, 10550 Old North Shore Rd., Duluth 55804. FIELD TRIPS: Marilyn Lancaster, 1860 S. Mississippi Blvd., St. Paul 55116. MEMBERSHIPS: Evelyn Stanley, 213 Janalyn Circle, Minneapolis 55416. NOMINATIONS: Kathy Heidel, 5085 Meadville St., Excelsior 55331. UNIVERSITY COORDINATION: Dr. Harrison Tordoff, Bell Museum of Natural History, Univ. of Minnesota, Minneapolis 55455. THOMAS ROBERTS AWARD: Doug Campbell, 4917 Russell Ave., Minneapolis 55410. SLIDE FILE LIBRARY: Wayne Peterson, 5812 Admiral Lane, Brooklyn Center 55429. HISTORIAN: Oscar Johnson, 7733 Florida Ave., Brooklyn Park 55455.

AFFILIATED CLUBS OF THE MINNESOTA ORNITHOLOGISTS' UNION

AGASSIZ AUDUBON SOCIETY
President: Clifford Steinhauer, Rt. 2, Box 143
Thief River Falls, MN 56701

ALBERT LEA AUDUBON SOCIETY
President: Arlene Bryson
Rt. 2, Alden, MN 56009

AUDUBON CHAPTER OF FARGO-MOORHEAD
President: Carol Sparbeck, 2834 N. 2nd St.
Fargo, ND 58102

AUDUBON CHAPTER OF MINNEAPOLIS
President: Jo Ellen Warolin, 2138 Centerview Lane
Mound, MN 55364

AUSTIN AUDUBON SOCIETY
President: Dorothy Owens, 2104 W. Oakland Ave.
Austin, MN 55912

BEE-NAY-SHE COUNCIL
President: Steve Blanich, P.O. Box 96
Crosby, MN 56441

CENTRAL MINNESOTA AUDUBON SOCIETY
President: Craig Lee, P.O. Box 753
St. Cloud, MN 56301

COTTONWOOD COUNTY BIRD CLUB
President: Ellis Gerber, 320 N. 12th St.
Mountain Lake, MN 56159

DULUTH AUDUBON SOCIETY
President: Doug Johnson, 427 N. 16th Ave. E.
Duluth, MN 55812

JACKSON COUNTY BIRD CLUB
President: Maureen Hendrickson, Box 394,
Lakefield, MN 56150

HIAWATHA VALLEY BIRD CLUB
President: Dave Palmquist, 84 Fairfax St.,
Winona, MN 55987

LESUEUR VALLEY BIRD CLUB
President: Marie Wierwill, 506 S. Main,
LeSueur, MN 56058

MANKATO BIRD CLUB
President: Larry Filter, 604 Lakeview
North Mankato, MN 56001

MINNEAPOLIS AUDUBON SOCIETY
President: Donald H. Wheeler, 1425 W. 28th St., #609
Minneapolis, MN 55408

MINNESOTA BIRD CLUB
President: Wally Jiracek, 10112 Dupont Ave. S.,
Bloomington, MN 55431

MINNESOTA RIVER VALLEY AUDUBON CLUB
President: Joe White, 9028 Kell Circle
Bloomington, MN 55431

MISSISSIPPI HEADWATERS AUDUBON SOCIETY
President: James Elwell, Rt. 8, Box 479
Bemidji, MN 56601

ROSEVILLE BIRD CLUB
President: Margaret E. Kehr, 988 W. Co. Rd. D
St. Paul, MN 55112

ST. PAUL AUDUBON SOCIETY
President: Carole Brysky, 277 E. Morton
St. Paul, MN 55106

WILD RIVERS AUDUBON SOCIETY
Box 266
Chisago City, MN 55013

WILDERNESS HERITAGE AUDUBON CHAPTER
President: Art Norton, Star Rt. Box 12,
Warba, MN 55793

ZUMBRO VALLEY AUDUBON SOCIETY
President: Jo Theye, Rt. 3,
Rochester MN 55901

Common Loon Productivity and Nesting Requirements on the Whitefish Chain of Lakes in North-Central Minnesota

Paul J. Valley

INTRODUCTION:

The Common Loon (*Gavia immer*) can be quite sensitive to human disturbance (pers. obs., Hammond and Wood 1976, McIntyre 1975, Ream 1976, Sutcliffe 1978, Sutcliffe et al. 1981, Titus and VanDruff 1981, Vermeer 1973a, Wood 1979). Shoreline development and recreational pressure from motorboats, waterskiers, fishermen, and canoeists have increased on the Whitefish Chain, leaving less undisturbed space for nesting loons. Although similar studies involving density, productivity, and the Common Loons' adaptability to a man-altered environment have been conducted in other areas of Minnesota, northeastern United States, and Canada (Hammond and Wood 1976, McIntyre 1975, 1978 and 1979, Metcalf 1979, Munro 1945, Olson and Marshall 1952, Ream 1976, Sutcliffe 1978, Titus and VanDruff 1981, Trivelpiece et al. 1979, Vermeer 1973a and 1973b), caution should be taken when comparing them with this study. Most other studies have been conducted in regions that might be considered secluded or "wilderness areas", while this study was conducted in an area with a significant amount of recreational pressure.

STUDY AREA AND METHODS:

This study was conducted on the Whitefish Chain of Lakes (4657 ha) near Pequot Lakes, Minnesota, about 50 km north of Brainerd. Specifically, the study area lakes were located in Crow Wing County: T 137, 138 and R 27, 28, 29 and included Arrowhead, Bertha, Big Trout, Clamshell, Island, Loon, Lower Hay, Lower Whitefish, Pig and Upper Whitefish lakes (Fig. 1). The lakes' physical factors are listed in Table 1.

Loons and nests were located by scanning the mainland and island shorelines from a 65-horsepower aluminum runabout using binoculars and spotting scope. Loons established their territories starting about 23 April, soon after the ice melted off the lakes, so finding breeding pairs and nests was simplified by observing loon pairs during that time. Most loons became conspicuous and vocal when I entered their territories, especially near the nests. This behavior also aided in nest location. Single loons and non-breeding pairs, however, were more difficult to monitor because they did not occupy specific territories.

Territories were checked three to four times a week and eggs were counted by approaching nests by boat when they were unoccupied, which was rare, or when loons were incubating. In the latter case, loons were flushed off their nests, the eggs were counted, followed by a quick retreat. This was performed once per nest, sometimes twice if necessary, and every effort was made to be as careful as possible to prevent nest abandonment. After hatching, verification of the presence and number of chicks from successful nests continued for the duration of the study. Breeding pairs with chicks surviving after four weeks were termed reproductively successful. McIntyre (1983) indicated that mortality is rare after young are four weeks old, so reproduction may be considered successful at that time.

Recreational pressure was assessed primarily by means of disturbance ratios (Vermeer 1973a), but the method of calculating these ratios was modified somewhat. The total number of disturbance units per lake was divided by the lake's "adjusted area" rather than just acreage. A lakefront home survey was conducted, including resorts, camps, boat marinas, and public accesses. A boat count was also conducted to arrive at an approximation of the amount of boating activity on the lakes. Disturbance units resulted from these surveys, with each home and boat designated by one unit, each resort of ten cabins or less designated by five units, and each camp, marina, public access, and resort of over ten cabins designated by ten units. Instead of dividing the total disturbance units

FIG. 1. Location of study area in Minnesota showing the 10 lakes and 19 loon territories (dotted areas). Black areas represent islands.

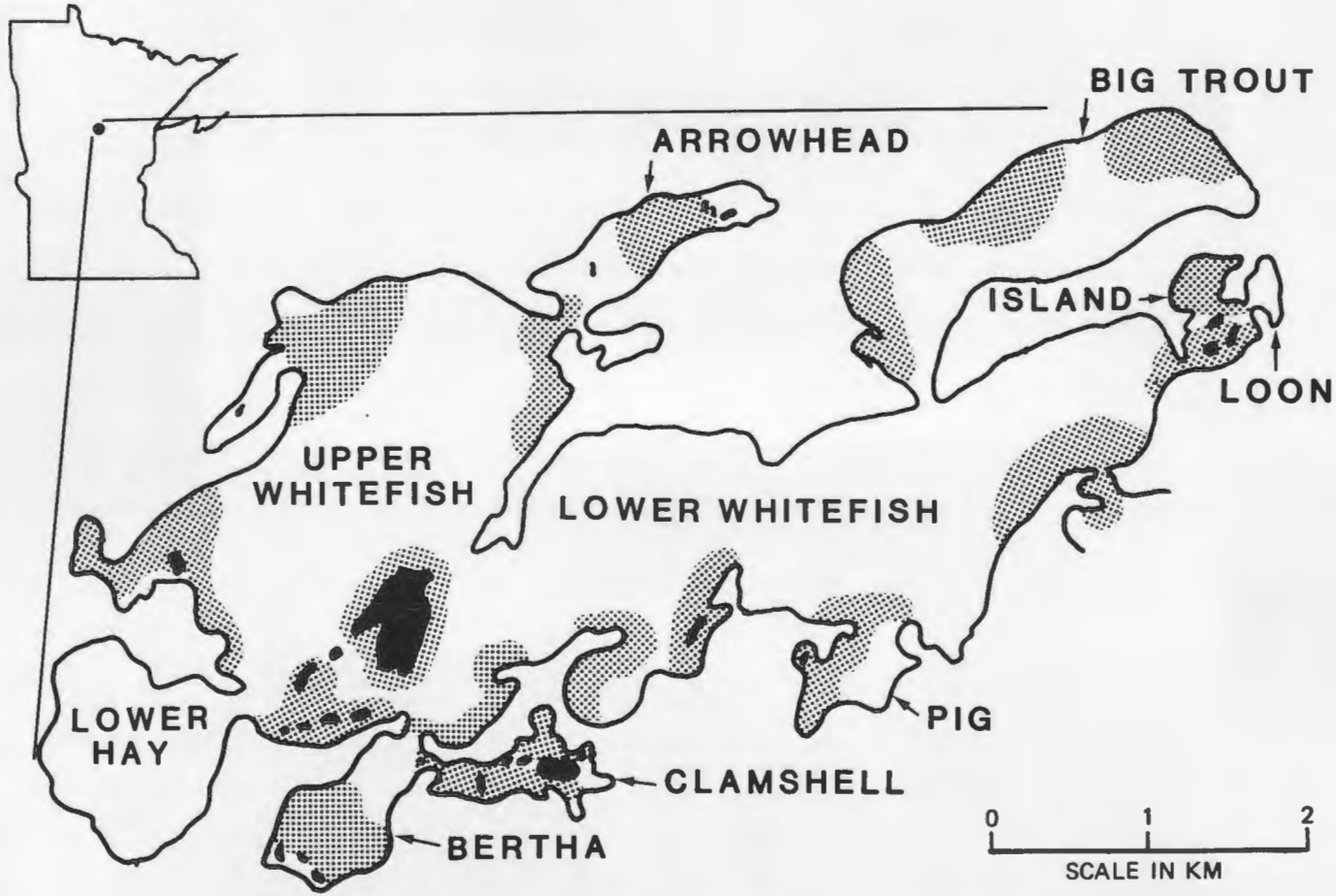


Table 1. Physical parameters for the Whitefish study area lakes
Source: Minnesota Department of Natural Resources

Lakes	Number of common loon breeding pairs	Area (ha)	Shorelength (km) (islands included)	Number of islands	Maximum depth (m)	Median depth (m)	Water clarity (m) (Secchi disk readings)
Arrowhead	2	115	7.0	4	3.7	0	1.2
Bertha	1	143	7.5	4	19.5	8.8	3.1
Big Trout	3	601	13.8	0	39.0	16.5	3.9
Clamshell	2	96	10.1	6	13.4	1.5	4.8
Island	2	78	7.7	3	23.2	4.0	4.5
Loon	0	20	2.6	0	9.8	NA	4.5
Lower Hay	0	291	6.4	0	30.5	15.5	3.7
Lower Whitefish	4	1749	25.3	1	42.7	14.3	3.5
Pig	1	86	4.2	1	18.3	NA	1.7
Upper Whitefish	4	1476	25.1	9	27.4	14.3	3.5

NA: information not available

per lake by the lake acreage as Vermeer did, the units were divided by an adjusted area which took into account the total shore length (mainland and island) as well as lake area. The total shore length was divided by the ideal shore length (if the lake were a perfect circle) and multiplied by the acreage to arrive at the adjusted area. This revealed a more meaningful figure concerning the potential for disturbance. The disturbance units divided by the adjusted area of each lake determined the disturbance ratios.

Four channel surveys were conducted *in* which boats going through several channels were counted. This revealed the extent of boat traffic that could affect nearby loons.

The seven channels surveyed were ranked from 1 to 7, with 1 being the busiest and 7 the least busy.

Visibility indices (Titus and VanDruff 1981) were also assigned to nests on a scale of 1 to 5, with 1 being conspicuous (almost completely visible to an observer on the water 10 m away from the nest) and 5 being not visible.

RESULTS AND DISCUSSION:

Density — Nineteen breeding pairs, 2-4 non-breeding pairs, 5-8 single loons, and 2 loons in immature plumage were located over the 4657 ha expanse of water. This range of 49 to 56 adult loons represented 1.1-1.2 loons/km^2 or 83-95 ha/loon (an exact total was not determined since all loons could not be counted simultaneously). The density of breeding pairs alone was 0.43 pairs/km^2 (see Table 2 for study comparisons; density differences between the studies probably reflect the areas' physical and recreational differences, or may reflect little more than each area's carrying capacity).

Clutch initiation and size — When nests were approached during incubation to determine clutch size, incubating loons often flushed off their nests, approached the boat, gave the tremolo call, and treaded water almost to the point of standing up. Some loons were "stickers" (Titus and VanDruff 1981), not flushing off the nest even when approached to within 3 m. Those nests observed with stickers were located in areas of relatively higher recreational pressure, and successfully hatched chicks. Titus and VanDruff indicated, and I agree, that the loons' refusal to leave their nests when approached by humans was a highly adaptive behavior mechanism in areas of higher recreational pressure in that all such stickers were usually successful nesters.

The initiation of clutches started 4 May and continued to 28 June. The total number of clutches was 31 and the average clutch size was 1.7 eggs (see Table 2 for study comparisons). Twelve two-egg clutches and 6 one-egg clutches were counted in the original 19 nests (one nest's clutch size was not determined). Seven two-egg clutches and 2 one-egg clutches were found in all determinable renests. Titus and VanDruff (1981) reported that one-egg clutches were significantly more common in renests than in original nests, but that was not the case in this study. Two-egg clutches potentially have a greater chance of hatching chicks than do one-egg clutches. Hence this study's higher percentage of two-egg clutches may reflect an adaptation to the increasing amount of recreational pressure.

Nest failures, renesting, and productivity (Tables 2 and 3) — Nineteen of the total 31 nests did not hatch chicks, yielding a 61% failure rate. Ten of the 19 unsuccessful nests were located on islands. Half of these failed because of predation, three were caused by a sudden water level increase, and two were caused by human disturbance near the nests followed by predation. The other nine unsuccessful nests, five caused by a sudden water level increase and four caused by predation, were located on the mainland. Predation accounted for 47% of all nest failures, while 42% were caused by a sudden water level increase and 11% were caused by human disturbance followed by predation.

Of breeding pairs that renested because of a sudden water level increase, 57% chose a new site, and of those that renested because of predation, 80% chose a new site. Once a predator finds a nest with eggs, it will probably be back in the future looking for another meal. It is, therefore, probably advantageous for unsuccessful loon pairs to renest on different sites.

Although no predation was observed during the study, evidence was noticeable. Many cracked and crushed eggshells were found, and one predated egg had claw marks on the shell membrane, probably caused by a raccoon or striped skunk. No positive evidence of avian predation was discovered, but Ring-billed Gulls, Bald Eagles, American Crows, and Caspian Terns were often seen near loon nests that were preyed upon. Three loon chicks were also lost and may have been preyed upon. Adults did not renest when chicks were lost.

Hatching — Hatching began 31 May and continued through 26 July. Thirty-six percent of all eggs hatched. Of known one-egg clutches, 38% of the eggs hatched, and of known two-egg clutches, 84% of the eggs hatched. Hatching success for two-egg clutches was significantly greater than that of one-egg clutches ($P < 0.05$). McIntyre (1975) also reported that hatching success for two-egg clutches was significantly greater

Table 2. Comparisons of Common Loon breeding pair density, clutch size, reproductive success, and percentage of the total nests located on islands from seven studies in North America

Study location*	Breeding pair density (pairs/km^2)	Mean clutch size	Number of chicks fledged/breeding pair	% of total nests on islands	Source
East-central Alberta, Canada	0.32	-	-	96	Vermeer 1973a
Knife Lake area, north-eastern Minnesota	0.27	1.6	0.50	93	Olson and Marshall 1952
Knife Lake area	0.34	1.4	0.63	78	Titus and VanDruff 1981
Knife Lake area	-	-	-	100	Ream 1976
Chippewa National Forest and Itasca State Park, north-central Minnesota	-	1.6	0.77	50	McIntyre 1975
Whitefish Chain of Lakes, north-central Minnesota	0.43	1.7	0.84	45	This study
New Hampshire	-	-	0.63	-	Sutcliffe 1978

* Studies are listed in approximate latitudinal order from north to south

Table 3. Reproductive success of first, second, and third clutches of 19 Common Loon breeding pairs on the Whitefish Chain of Lakes in north-central Minnesota

Number of first clutches	19
First clutches that hatched chicks	7
Number of eggs (from 18 clutches)	30
Number of eggs hatched	12
Number of fledglings	10
Mean clutch size	1.67
Number of second clutches	10
Second clutches that hatched chicks	4
Number of eggs (from 8 clutches)	15
Number of eggs hatched	6
Number of fledglings	5
Mean clutch size	1.87
Number of third clutches	2
Third clutches that hatched chicks	1
Number of eggs (from 1 clutch)	1
Number of eggs hatched	1
Number of fledglings	1
Mean clutch size	1.00
Overall % of fledglings/breeding pair	84.2

than that of one-egg clutches, as did Titus and VanDruff (1981).

Nest site location — Loon nests were located on almost all sides of the lakes. They were either on the N-NW shoreline, protected from the prevailing winds, or were protected from wind and waves by islands or points of land.

Water depths were determined at 2 m from the nests and approximate angles of decline were calculated to determine the severity of drop-offs by the nests. As indicated by Olson and Marshall (1952), it was thought that deeper water close to the nests and steeper drop-offs afforded good underwater exits for incubating loons. Loons on the Whitefish Chain, however, did not favor areas with these characteristics, as many nests had virtually no angle of decline for up to 5 m away from the nest, and the water was often shallow. Most often, when loons were flushed off their nests, they "ran" across the surface of the water and made no attempt to dive. Deep water and steep drop-offs, then, did not seem to play a part in loon nest location or success.

Because of predation, it was predicted that there would be a significant positive correlation between hatching success and distances of nests to land. The median distance between successful nests and land (island or mainland) was 1 m, ranging from -1(located on land) to 30 m, while the median distance for unsuccessful nests was 4.5 m, ranging from -1 to 45 m. No significant correlation was found between hatching success and distances of nests to land ($r = -0.002$). Attentive nesting or nesting in areas of fewer predators, then, must be the loons' mechanisms against predation.

Lake characteristics — There were significant positive correlations between the

Table 4. Disturbance ratios (modified from Vermeer 1973a)

Lakes	Number of Common Loon breeding pairs	Hatching success	Total number of disturbance units	Actual shorelength and "ideal" shorelength (if lake were a perfect circle) in km	Adjusted area (actual shorelength divided by ideal shorelength, then multiplied by lake acreage	DISTURBANCE RATIO (disturbance units divided by adjusted area)
Arrowhead	2	2	47	7.0/3.8	530.1	.0887
Bertha	1	1	403	7.5/4.2	629.9	.6398
Big Trout	3	2	786	13.8/8.6	2365.8	.3322
Clamshell	2	2	386	10.1/3.5	681.6	.5663
Island	2	1	151	7.7/3.2	475.9	.3173
Loon	0	0	57	2.6/1.6	80.7	.7063
Lower Hay	0	0	364	6.4/6.1	766.0	.4752
Lower Whitefish	4	2	988	25.3/14.7	7412.0	.1333
Pig	1	0	289	4.2/3.2	270.8	1.0672
Upper Whitefish	4	2	604	25.1/13.6	6767.3	.0893

number of breeding pairs and shore length ($r = 0.91$), breeding pairs and lake size ($r = 0.81$), and breeding pairs and maximum lake depth ($r = 0.52$) (Table 1).

No significant correlations were found between the number of breeding pairs and either median lake depth ($r = 0.19$), water clarity (most lakes were quite clear) ($r = 0.14$), or the number of islands ($r = -0.09$).

Islands — Of the total 31 nesting attempts, 16 were on the mainland, 14 were on islands, and one was built up in the middle of a small bay. Four of the successful nests were on islands and seven were on the mainland. Con-

trary to these data, other studies have shown a preference of loons to nest on islands (Table 2), and it has been proposed that island nesting may be a mechanism against predation by land mammals (Alvo 1981, Vermeer 1973a). Although loons nested on nine of the 28 islands on the Whitefish Chain, few islands were suitable for nesting because of human impact (i.e., recreational pressure). It was suggested by Alvo (1981), and I agree, that loons in developed areas are giving up their favored island nesting sites to escape such impact.

Loons nesting on smaller islands (< 0.10ha) were significantly more successful than those on larger islands ($P < 0.05$). Vermeer (1973a) reported that 19 of the 25 island nests in his study area were located on islands less than 0.80ha in size. Smaller islands were probably preferred because fewer predators and humans occupy them.

Recreational pressure — As indicated earlier, loons can be quite sensitive to human disturbance, and it was expected that more breeding pairs would succeed on lakes with lower disturbance ratios (see STUDY AREA AND METHODS). And, indeed, there were significant inverse correlations between hatching success and disturbance ratios ($r = -0.73$) and between the number of breeding pairs and disturbance ratios ($r = -0.69$) (Table 4). Vermeer (1973a) also reported the same correlation between breeding pairs and disturbance ratios ($r = -0.57$). Olson and Marshall (1952) indicated that recreational pressure in the Boundary Waters Canoe Area (BWCA) was detrimental to loon productivity, and Ream (1976) stated that the main factor limiting reproduction in the BWCA appeared to be the disturbance of nesting sites by canoeists.

Other biologists' data, however, showed little or no effects of recreational pressure on loon productivity (Christenson and Sherburne 1981, McIntyre 1975 and 1978, Titus and VanDruff 1981). McIntyre (1975) stated that the positive correlation of productivity with increased recreational use in her study area did not support previous opinions concerning the adverse effects of human disturbance on loons. In fact, lakes with heavy recreational fishing pressures had the greatest proportion of reproductive success. As McIntyre put it, "If loons and humans both prefer clear lakes with an abundant supply of fish, then these data may represent a requirement overlap and not a cause-effect relationship." Titus and VanDruff (1981) reported that from 1950 to 1976 there was an approximate 800%-900% increase in recreational use in the BWCA, accompanied by a 35% increase in the adult loon population. The recreational patterns and effects on loons in these areas, however, are probably different from those of the Whitefish Chain. Loons on the Whitefish Chain preferred nesting in areas where there was a minimum amount of human disturbance, and were more successful in doing so.

It was expected that loons near areas with heavy boat traffic would not be as successful as those near areas with little boat traffic, but this was not the case. Loon pairs that fledged chicks had channel survey rankings from 1 to 6, with the majority of successes in areas with a channel survey rank of 3 (relatively heavy boat traffic). Christenson and Sherburne (1981) also reported in their Maine study that boating activity had little effect on incubating loons or nest outcome. This lack of concern about boat traffic probably reflects some loons' adaptation to recreational pressure.

Visibility indices (Titus and VanDruff 1981, see STUDY AREA AND METHODS) were assigned to all nests under the assumption that nest visibility played an important role in the potential for predatory and recreational impact on nests. The successful nests had visibility indices from 1 to 3, and the median indices for both successful and unsuccessful nests were 2 (quite visible). Of all the nests, successful or not, only one had an index of 4 and none had an index of 5. No significant correlation was found between hatching success and visibility indices ($r = -0.02$). Titus and VanDruff (1981), however, reported in their BWCA study that the less visible nests were significantly more successful when compared to those with great visibility. Olson and Marshall (1952) also indicated that loons showed a preference for some sort of nest cover. It appears, though, that nest visibility did not play an important part in nest location and success of loons on the more disturbed Whitefish Chain. Some loons' lack of concern about nest visibility probably reflects their habituation to recreational pressure.

Most area residents are concerned about the well-being of the Common Loons, and

they do their part to help protect them. But the Whitefish Chain also boasts over 20 resorts and camps; thus many tourists utilize the lakes for boating, canoeing, fishing, and waterskiing. Common sense is necessary, for these activities can harm the environment and affect the area's loon population adversely.

ACKNOWLEDGMENTS:

I wish to thank Lee Pfannmuller and the Nongame Wildlife Program of the Minnesota Department of Natural Resources, Victor Nelson-Cisneros and the Venture Grant Committee of Colorado College, and Duane H. DeBower and the Minnesota Loon Appreciation Project for their financial asssitance, without which this study could not have been undertaken. For their concern, support, suggestions, and assistance, I wish to thank Richard G. Beidleman, Alan S. Davis, Thomas A. Hughes, Mark D. Larson, Cliff and Betty Skoning, Michael T. Valley, Michelle M. Valley, Barbara L., Winternitz, the Department of Biology of Colorado College, and the many area residents on the Whitefish Chain.

Special appreciation goes to Pam Perry, Nongame Wildlife Specialist for the Minnesota Department of Natural Resources and to my parents, Leonard and Mary Ann Valley. Their assistance, support, and advice were invaluable.

LITERATURE CITED:

Alvo, R. 1981. Marsh nesting of common loons (**Gavia immer**). Can.. Field-Nat. 95(3):357.

Christenson, B.L. and J.A. Sherburne. 1981. Effects of boating activity on nesting common loons in Maine. Trans. NE Sect. Wildl. Soc. 38:151.

Hammond, D.E. and R.L. Wood. 1976. The vanishing loon: can it survive in New Hampshire? Loon Presv. Comm., Center Harbor, NH.

McIntyre, J.W. 1975. Biology and behavior of the common loon (**Gavia immer**) with reference to its adptability in a man-altered environment. Ph.D. thesis, Univ. of MN, Minneapolis, MN 230 pp.

-----. 1978. The common loon: part III. Population in Itasca State Park, Minnesota 1957-1976. Loon 50:38-44.

-----. 1979. Minnesota common loon survey report-1978. Proc. N. Amer. Conf. of Common Loon Res. and Manage. 2:123-125.

-----. 1983. Nurseries: a consideration of habitat requirements during the early chick-rearing period in common loons. J. Field Ornithol. 54 (3):247-253.

Metcalf, L. 1979. The breeding status of the common loon in Vermont. Proc. N. Amer. Conf. of Common Loon Res. and Manage. 2:101-110.

Munro, J.A. 1945. Observations of the loon in the Cariboo Parklands, British Columbia. Auk 62:38-49.

Olson, S.T. and W.H. Marshall. 1952. The common loon in Minnesota. MN Mus. of Nat. Hist. Occas. Pap. No. 5. Univ. of MN, Minneapolis, MN.

Ream, C.H. 1976. Loon productivity, human disturbance, and pesticide residues in northern Minnesota. Wilson Bull. 88:427-432.

Sutcliffe, S.A. 1978. Changes in status and factors affecting common loon populations in New Hampshire. Trans. Northeast Sec. Wildl. Soc. 35:219-224.

-----, R. Wood, and T. Taylor. 1981. Will the loon survive? Loon Presv. Comm., Meredith, NH.

Titus, J.R. and L.W. VanDruff. 1981. Response of the common loon to recreational pressure in the Boundary Waters Canoe Area, northeastern Minnesota. Wildl. Monographs. Pub. of the Wildl. Soc. No. 79.

Trivelpiece, W., S. Brown, A. Hicks, R. Fekete, and N.J. Volkman. 1979. An analysis of the distribution and reproductive success of the common loon in the Adirondack Park, New York. Proc. N. Amer. Conf. of Common Loon Res. and Manage. 2:45-55.

Vermeer, K. 1973a. Some aspects of the nesting requirements of common loons in Alberta. Wilson Bull. 85(4):429-435.

-----. 1973b. Some aspects of the breeding and mortality of common loons in east-central Alberta. Can. Field-Nat. 87:403-408.

Wood, R.L. 1979. Management of breeding loon populations in New Hampshire. Proc. N. Amer. Conf. of Common Loon Res. and Manage. 2:141-146.

2545 N. 15th St., Trenton Place, St. Cloud, MN 56301.

Itasca Birds: Red-eyed and Philadelphia Vireos

David F. and Jean M. Parmelee

One of Itasca's truly abundant birds is the Red-eyed Vireo (**Vireo olivaceus**), which can be heard daily throughout much of the park from its arrival in May until long after other species have quieted down by midsummer. The Red-eyes inhabit many places, including the interior of dense forests, but at Itasca they have a liking for the forest edge, either at the borders of fields or at breaks within the forest canopy. They are especially abundant on the campus of the University of Minnesota Forestry and Biological Station where they have the best of both habitats. Each summer without exception a pair fashions a pensile nest cup of paper birch and other plant material near our cabin overlooking Lake Itasca. Like others of their kind, our vireo neighbors are difficult to see even when we search for them, but their monotonous robin-like phrases with intermittent pauses forever announce their presence.

Some vireos occupy the lower forest levels, others the higher ones, but the Red-eyes transcend all stories. It is not unusual to find their nests from less than a meter to upwards of a dozen above ground, as is often the case in our campus setting. Although all the nests seen by us at Itasca are in deciduous trees or shrubs, the birds readily inhabit mixed growths of coniferous and deciduous types. Not only do they have a wide choice of nest sites, they also catch a variety of insects, some quite unpredictable.

Our most unusual encounter with a hunting Red-eye occurred not far from the cabin where a great ruckus near one of the park trails led us to the scene of the action. Fluttering directly before us was one of the Red-eyes locked in combat with a huge dragonfly, seemingly as big as itself and holding its own. Their amazing mid-air struggle took them to the forest leaves which swirled and crackled all around them. Our presence no doubt distracted them, for the pair suddenly parted and with them went a biologist's unanswered question as to which one would have won. And why would a caterpillar-loving vireo tackle so formidable an adversary in the first place?

One Itasca habitat not occupied by Red-eyed Vireos is Floating Bog Bay — a kilometer-long spongy sedge mat that borders Bear Paw Point a short walk from the station. So typical of many Itasca bogs, it is tricky to negotiate and stay dry in, but not dangerous. Parts of the floating bog are upgrown to black spruce, tamarack, pussy-willow, Bebb's willow, sage-leafed willow, and bog birch. One struggles through hectares of broad-leafed cattail, marsh fern, water arum, and sweetflag to find certain though not unique Itasca birds, notably American Bittern, several ducks, Alder Flycatcher, Sedge Wren, Yellow and Yellow-rumped Warblers, Common Yellowthroat, Swamp and Song Sparrows, and the only place where one regularly finds nesting Cedar Waxwings. It is the sort of place one looks for the unusual. According to the literature, the habitat is ideal for the Red-eye's sibling species, the Philadelphia Vireo (**Vireo philadelphicus**), a bird so rare at Itasca that, in lieu of good evidence for it, we decided to drop the species from the Itasca check-list. Imagine the surprise, and the thrill, at finding a fresh nest conceivably of this species attached to a willow deep within Floating Bog Bay.

Incubating vireos are not secretive. Males sing when sitting on eggs. But the occupants of the Floating Bog Bay nest were not to be seen or heard. If not for the four warm eggs, we would have thought that they had been deserted. Following a dozen fruitless trips to the vireo site, we finally saw a bird on the nest. Dark clouds obscured its identity but, as we approached, a shaft of sunlight shown across the willow highlighting the bird's eye. It glowed ruby red. No *philadelphicus* here. Except for the exquisiteness of the scene, the disappointment would have been unbearable. We later attempted to preserve this moment in watercolor.

Philadelphia Vireos continue to be an enigma, not only at Itasca but elsewhere in Minnesota. A planned trip to North Dakota's Turtle Mountains where the birds reportedly breed was in vain. When my former graduate student, Chris Rimmer, invited us to North Point on the southern shore of James Bay, Ontario, we accepted. Not only did we wish

to observe Chris's field study firsthand, we were assured that *philadelphicus* was one of North Point's common inhabitants.

Philadelphia Vireos sang everywhere in Moosonee, the last-stop Canadian settlement. From there it was air charter to North Point. The birds whose song is deceptively like Red-eyed Vireos occupied wet willow and alder areas bordering black spruce and tamarack, not all that different from Minnesota habitats. Much of the time we were knee-deep in water trying to see the birds, let alone find their nests in boggy thickets.

At one point when all seemed lost, a Philadelphia Vireo appeared with a beak full of fluffy plant down and deposited it in its nest directly above us. Just as quickly it disappeared. We examined the structure carefully and found that it resembled closely, with a few subtle differences, the nest of a Red-eyed Vireo. Since *philadelphicus* is smaller than *olivaceus*, the nest and eggs of the former were predictably smaller. More revealing was the fact that *philadelphicus* built a much more compact structure, one that lacked strips of paper birch in that part of its range, although other kinds of bark strips were used extensively with strands of usnea lichen or old man's beard.

Before leaving Moosonee we examined two additional Philadelphia Vireo nests, one found by Chris Rimmer in his study area, the other by us at the edge of town where an advertising male sang from his nest. These few Ontario experiences convinced us that we had not seen a Philadelphia Vireo's nest old or new anywhere in the Itasca region. Despite all, we hope that we will find an Itasca-inhabiting Philadelphia Vireo — perhaps in the willow-alder thickets that nearly choke the little stream that winds through Lake Alice's bog just east of the park. **Bell Museum of Natural History, University of Minnesota, Minneapolis, MN 55455.**

Colony Sites of Eared Grebes in Minnesota in 1986

Janet Boe and Kristie Prahl

In June 1986 we began a three-year study of Eared Grebe colony site and nest site selection in Minnesota. As part of the study, Eared Grebe colony sites currently or recently listed as active by the Nongame Wildlife Program (1986) were surveyed. We searched the lakes using a canoe, spotting scope and binoculars and spent a minimum of two hours at each location. Because of time constraints placed on us by other aspects of the study, we visited each colony site only once during the course of the summer. However Nongame Wildlife Program personnel (NWPP) check some colonies each year (Guertin and Pfannmuller 1985) and information from their visits this year is included here.

On 10 July we checked French Lake in Hennepin County and saw no Eared Grebes. However, also in the Metro area, a new colony site was found in May at Tiger Lake in Carver County by Tom Landwehr (Miller 1986). On 9 July we visited this site and found 17 adults with eight young and nine nests with an average of 2.8 eggs per nest. Presumably the nests were renesting attempts. Although a cattail fringe and islands were present, the nests of heaped-up submergents were built in the open over a dense bed of *Myriophyllum* species.

We saw no Eared Grebes on our 27 June visit to North Heron Lake in Jackson County. However J. Schladweiler (1986) reported seeing a few on the lake during the summer. We observed none on Pierce Lake in Martin County on 27 June. North Badger Lake in Murray County was visited by us on 29 June and by NWPP on 25 July (Schladweiler 1986), but no Eared Grebes were seen on either occasion. We saw no Eared Grebes at Westline Wildlife Management Area (WMA) in Redwood County when we stopped there on 2 July. NWPP saw 14 adults at Coon

Eared Grebe on nest. Photo by Gary Nuechterlien.

Creek WMA but none at a former colony site southwest of Cottonwood in Lyon County in late August (Schladweiler 1986). Tyson Lake in Yellow Medicine County was checked by NWPP in August and no Eared Grebes were seen (Schladweiler 1986). On 25 July, at Swan Lake in Nicollet County, we saw 25 adults and four young. We visited Timm Lake WMA in Yellow Medicine County on 13 July, and NWPP visited the site on 24 July (Schladweiler 1986), but no Eared Grebes were seen there on either day. We stopped at Miller-Richter WMA, also in Yellow Medicine County, on 14 July and saw no Eared Grebes.

NWPP saw 14 adults and one nest on Salt Lake in Lac Qui Parle County on 30 May (Schladweiler 1986); on our visit on 14 July we saw nine adults, no young and no nests. Three adults were seen on Shible Lake in Swift County when NWPP visited the site on 31 May (Schladweiler 1986), and we saw the same number when we checked the lake on 15 July. We saw no Eared Grebes at Dismal Swamp in Big Stone County in late July and NWPP saw none there in late August (Schladweiler 1986). We observed lone adults on both Lysing Lake and Eli Lake in Big Stone County in mid July, but none were seen on these lakes when NWPP visited the sites on 21 and 22 August (Schladweiler 1986). We visited Lake Leo in Big Stone County on 27 July and saw no Eared Grebes, nor were any seen on our 15 July stop at Big Stone National Wildlife Refuge, and J. Heinecke (1986) reported that none were observed on the refuge during the summer. G. Nuechterlein and D. Buitron (1986) discovered a colony site at West Toqua Lake in Big Stone County in May. On 27 July we observed 75 adults and 75 young there.

No Eared Grebes were observed during our mid-July stops at Gorder Lake and Harstad Slough in Stevens County. However, we saw four adults on Clear Lake on 25 July. We saw no Eared Grebes on Mud Lake in Traverse County on 6 August. On 7 August we found a colony site at an unnamed lake in Grant County (Sections 26, 35, T 127N R4 1W); six adults and two young were present.

On 7 August we saw 15 adults and seven nests with an average of 2.1 eggs per nest at the Breckenridge Water Treatment Ponds. Nests were in the open and made up of submergent vegetation. At the East Grand Forks Water Treatment Ponds on 8 August we saw 30 adults, 14 young and one nest with three eggs, the nest again constructed of submergent vegetation.

On 25 June NWPP observed 31 adult Eared Grebes on Thief Lake WMA in Marshall County (Haws 1986). J. Mattsson (1986) reported that Eared Grebes were again nesting in large numbers on Agassiz Pool at Agassiz National Wildlife Refuge. When we visited Roseau WMA in Roseau County on 10 August we observed two adults and five young.

Summary: Eared Grebes were seen during the summer of 1986 at 12 of 27 former colony locations surveyed. In addition, three previously unrecorded colony sites were found. Nests or young were observed at nine of the colony sites.

ACKNOWLEDGMENTS

Funding for 1986 field work was provided, in part, by Sigma Xi, the Frank M. Chapman Memorial Fund of the American Museum of Natural History and North Dakota State University.

REFERENCES

Guertin, D. S. and L. A. Pfannmuller 1985. Colonial Waterbirds in Minnesota. ***The Loon*** 57:67-78.

Haws, K. 1986. Personal communication.

Heinecke, J. 1986. Personal communication.

Mattsson, J. 1986. Personal communication.

Miller, M. 1986. Personal communication.

Nongame Wildlife Program. 1986. Colonial waterbird nesting site printout. Minnesota Department of Natural Resources. St. Paul.

Nuechterlein, G. and D. Buitron. 1986. Personal communication.

Schladweiler, J. 1986. Personal communication.

Zoology Department, North Dakota State University, Fargo, ND 58105 and Itasca Community College, Grand Rapids, MN 55744.

Minnesota's Next First State Record: Some Predictions

Kim R. Eckert

In **A Birder's Guide to Minnesota** (p. 45), an attempt was made to list the most likely future additions to Minnesota's checklist. This 1983 list, based on limited information, made the assumption that the most likely candidates were those species already recorded in states and provinces adjacent to or near Minnesota. This assumption was apparently valid enough, since all but one of the species added to the Minnesota list since 1983 were predicted; in order of their appearance they were: Brambling, Ross' Gull (at Agassiz N.W.R. rather than the predicted locale of Lake Superior), Black-bellied Whistling-Duck (an Ac species — i.e., wildness possible but not certain), Lesser Black-backed Gull, White-winged Dove, Clark's Grebe (mentioned in the 1985 supplement to **A Birder's Guide**), Common Black-headed Gull (at unexpected Heron Lake rather than Mille Lacs or Lake Superior), Sandwich Tern (the lone unanticipated species — the only other non-coastal record was from Ontario over 100 years ago!), and Mountain Plover.

The Sandwich Tern at Duluth in June 1986 was not the first surprising and unexpected species to appear in Minnesota. For example, the Wilson's Plover (Duluth, July 1981 and May 1982) is a species recorded in only two other non-coastal states (Ohio and Ok-

lahoma), so its appearance here was hardly predictable. Equally surprising was the September 1952 sighting of a Black Phoebe in Lac Qui Parle County; except for Florida, no other eastern state has a record of this species. And considering that the American Dipper (Cook County, January-April 1970) has never been reported anywhere else east of the Black Hills, no one could have reasonably anticipated its occurrence here.

At any rate, Minnesota birders are always hopeful of finding rarities of the magnitude of a first state record, and now there is a reference to more easily anticipate potential candidates. **A Distributional Checklist of North American Birds** (reviewed elsewhere in this issue) conveniently lists the status of all species recorded through 1985 in each state and Canadian province, so it is now relatively easy to scan through those species missing from the Minnesota checklist which have been recorded reasonably close to our borders. Recently I examined this book's species lists for nine surrounding states and provinces — Manitoba, Ontario, North Dakota, South Dakota, Nebraska, Iowa, Wisconsin, Michigan and Illinois — to see which birds are most conspicuous by their absence from the Minnesota list. (My choice of states/provinces was somewhat subjective — parts of Manitoba, Ontario, Nebraska and Illinois are farther removed from Minnesota than are northern Missouri or Indiana — but the line had to be drawn somewhere.)

Based only on this book's data (there is, of course, other information and methods which could be used), the following species could be considered the most likely future additions to our checklist since they are listed for seven, eight or nine of the states/provinces listed above:

Brown Pelican
White Ibis (a possible 1972 sighting of an immature — see ***The Loon*** *44:91* — *was* automatically dismissed as "impossible", but such an assumption is not supported by records from seven nearby states/provinces)
Wood Stork
Black-necked Stilt (recorded in all nine; there is one possibly correct Minnesota sighting)
Curlew Sandpiper (one appeared just across the state line in Grand Forks)
Golden-crowned Sparrow (there are two possibly correct Minnesota sightings)

In other words, these six species would seem to be long overdue in Minnesota. I would guess that the first three species are seldom thought of as birds to expect or look for in Minnesota, while the last three have long been considered reasonable possibilities worth watching for.

Also good candidates as first state records include the following species: (these have been recorded in four, five or six of the states/provinces).

Northern Gannet
Glossy Ibis (the published 1939 record from Heron Lake has recently been reexamined and removed from the Minnesota list)
Roseate Spoonbill
Black Vulture (there are two or three possibly correct Minnesota sightings)
Thick-billed Murre
Common Ground-Dove (a specimen of unknown origin was found in a Minnesota collection — see ***The Loon*** 40:18-19)
Cassin's Kingbird
Carolina Chickadee
Pygmy Nuthatch (once appeared as close as a Sioux Falls, S.D. feeder)
Cassin's Sparrow
Lesser Goldfinch

Most Minnesota birders probably never considered most of these species as likely here (especially the gannet, spoonbill, murre and chickadee!), but the statistics suggest that they should not be totally unexpected if and when they occur.

The species recorded in three or fewer of the nine states/provinces are literally too numerous to mention since there are 83 of them. Some of these are non-migratory residents which will probably never occur in Minnesota: e.g., Rock Ptarmigan (Manitoba, Ontario), Sage Grouse (North and South Dakota, Nebraska) and Eurasian Tree Sparrow (Illinois). Others, just as unlikely in Minnesota, are regular species at the edge of their range far from here with little inclination to come any closer: e.g., Black Guillemot (Manitoba, Ontario), Fish Crow (Illinois), Chihuahuan Raven (Nebraska) and Canyon Wren (South Dakota). Still other species in this category are real eye-openers; none of

these would I have considered "possible" anywhere near Minnesota, but occur they did, and perhaps the "impossible" could also happen here: Magnificent Frigatebird (Iowa, Wisconsin), Clapper Rail (Nebraska), Sooty Tern (Wisconsin), Large-billed Tern (Illinois), Gray Kingbird (Ontario, Michigan), Bendire's Thrasher (Manitoba), Phainopepla (Ontario, Nebraska) and Hepatic Tanager (Illinois).

But some of the species in this one, two or three out of nine category seem good potential candidates for the Minnesota list:

Olivaceous Cormorant (South Dakota, Nebraska, Illinois; there have been one or two possibly correct Minnesota sightings)

Garganey (Manitoba, Illinois)

Tufted Duck (Ontario, Michigan, Illinois)

Smew (Manitoba, Ontario; these three Eurasian ducks could be valid, wild strays here and not necessarily escapes; the Tufted Duck and Smew have already been reported but found unacceptable)

Black-shouldered Kite (South Dakota, Nebraska, Wisconsin; the 1976 record, published in ***The Loon*** 48:180, has since been found unacceptable)

Little Stint (Ontario; this and other Eurasian stints could mix with a flock of peeps and be easily overlooked.

Sharp-tailed Sandpiper (Ontario, Iowa, Illinois; it was surprising to find so few records, since Minnesota birders have been expecting it here for years)

Heermann's Gull (Michigan; a sighting years ago from Duluth was dismissed as "impossible" without being investigated)

Slaty-backed Gull (Illinois; a 1968 sighting of an unidentified black-backed gull may have been of this species — see ***The Loon*** 41:55-56)

Western Gull (Illinois; since gulls are so prone to vagrancy, almost any species, including Glaucous-winged, seems possible here)

White-throated Swift (South Dakota, Nebraska, Michigan; it wouldn't take long for this fast-flying bird to get here from the Badlands)

Broad-tailed Hummingbird (South Dakota, Nebraska; this or another western species — e.g., Calliope, Black-chinned or Allen's — could occur, although anything less than a breeding-plumaged male could pose identification difficulties)

Red-naped Sapsucker (Nebraska, Illinois; this recently-split species reportedly is not given to wandering east, but how many birders have looked for it among Yellow-bellieds?)

Gray Flycatcher (Ontario; this and other difficult-to-identify western Empidonax could easily wander here but escape detection as easily as a stint)

Ash-throated Flycatcher (Ontario, Illinois; also recorded in several other states farther east)

Fork-tailed Flycatcher (Ontario, Illinois, Michigan; another flycatcher seen in several other eastern states, so it is not safe to assume a flycatcher with a long, forked tail here is necessarily a Scissor-tailed)

Pinyon Jay (South Dakota, Nebraska, Illinois)

Virginia's Warbler (Ontario, Nebraska, Illinois)

Painted Redstart (Ontario, Wisconsin, Michigan; a Virginia's might be difficult to pick out of a warbler wave, but this redstart should stand out)

But enough predictions — anyone can sit home and do that. Now comes the hard part: let's get out there and find some of these birds. Or better yet, let's turn up one of those "impossible" species that no one could predict! **9735 North Shore Dr., Duluth, MN 55804.**

COMMON LOONS WERE COLOR BANDED in Voyageurs National Park, International Falls, MN, summer 1986. Color bands are on right leg; combination is green over red (green proximal). FWS band is on left leg. Adults and young of the year were banded. Bands float on the surface of water and are easily seen. Please report sightings to HILDY REISER, Northern Arizona Univ., Dept. of Biol. Sci., Box 5640, Flagstaff, AZ 86011 (602-523-7508).

The Summer Season
June 1 to July 1, 1986

Mary Shedd and Steven G. Wilson

The warm wet spring of 1986 was followed by a fairly wet summer with near normal temperatures throughout the state. Precipitation was above average in all regions except the northwest. In June the northeast, east central, and south central regions received the most rain, about 25% above normal, while in July the west central, central, and southern regions were about 35 - 45% wetter than normal. With this ample spring and summer rainfall water levels over most of the state were high and led to some flooded out nests and late starts for some waterfowl. On the other hand, saturated soils and excessive rainfall contributed to the creation of wetland habitat in some parts of the state.

During the season 57 observers and the statewide Breeding Bird Surveys reported 267 species (this does not include Trumpeter Swans, Peregrine Falcons, or Northern Bobwhites, all likely releases), second only to 1983's total of 271. Observer coverage of the state seemed to improve over last year. All contributors deserve a pat on the back for this, among them Al Bolduc whose record keeping abilities must rival those of the Census Bureau with the number of counties he reports from. A listing by region of the number of species seen shows that no region was neglected. The number of birds reported from each region roughly parallels expected breeding bird diversity, *i.e.*, increasing from the north to the southwest. The northwest region reported the highest number of species (194), followed by the north central (185), northeast (181), central (157), east central (155), south central (144), southeast (142), west central (135), and southwest (127) regions. Holes in coverage did occur at the county level, where low species totals were reported for two isolated counties, Chisago (9) and Lincoln (0!), and for several small clusters of counties: Goodhue (3), Dodge (4), Steele (6), and Waseca (4) in the southeast and south central regions; Carver (14), McCleod (0!), Renville (2), and Kandiyohi (5) in the central; Wilkin (18), Traverse (1), Grant (14), and Douglas (5) in the west central; Norman (3) and Mahnomen (6) in the northwest.

An abundance of rare birds this summer provided some very exciting birding. Among the many unusual sightings were an amazing three new state records: a Mountain Plover in Faribault County, a Common Black-headed Gull in Jackson County, and especially a Sandwich Tern in Duluth. Other rarities reported were: a Tricolored Heron at Agassiz NWR; five ibises at North Heron Lake in Jackson County; a Mute Swan in Duluth, only the second summer record for the state; a Snowy Plover in Clay County; two Laughing Gulls in Fillmore County in mid-June; Least Terns seen in Duluth and Olmsted County; the first summer sighting in at least ten years of a pair of Carolina Wrens; a Sage Thrasher at Carlos Avery Refuge; a White-eyed Vireo in Martin County; and a Baird's Sparrow in Crow Wing County.

Other seasonal highlights include several regular summer residents unusually far out of their ranges: a Bufflehead seen mid-summer at Carlos Avery Refuge; a Marbled Godwit in Duluth; a Ruby-crowned Kinglet in July in Meeker County; and a Henslow's Sparrow in Aitkin County. There were quite a few unusually late spring migrants seen in June. Among unusually early fall migrants were a Lesser Golden-Plover in Faribault County, Greater Yellowlegs in Marshall and Olmsted Counties, a Northern Phalarope in Clay County, and a number of warblers including Tennessee, Nashville, and Chestnut-sided.

Some other notable observations were: the first sightings in four summers of Long and Short-eared Owls; the scarcity of American Black Ducks, Green-winged Teal, Canvasbacks, and Red-shouldered Hawks; an increase in the number and/or distribution of Canada Geese, Grasshopper Sparrows, and Pine Siskins; and again there were no reports of Little Blue Herons, Burrowing Owls, or wild Northern Bobwhites.

Another excellent effort by nest and brood card contributors produced nesting evidence for 171 species (including the Trumpeter Swan), a number equal to that of 1983 and second only to last year's high of 177. Contributors sent 1082 cards describing 1444 colonies, nests, or broods. Additionally, reports of at least 100 nests or broods were included on seasonal reports. This valuable breeding documentation, with many county first records, is steadily increasing our knowledge of Minnesota's breeding bird population. This year's champion nest finders were the indefatigable Nestor Hiemenz and Jack Sprenger, along with Shelley and Keith Steva, Mark and Jean Newstrom, Forest and Kirsten Strnad, and Mark Moore. Special mention goes to Frank Swendsen for his effort in filling the gap on breeding documentation in Koochiching County with 16 new records of positive nesting. All of these records were of fairly common summer residents, a good illustration of the paucity of breeding records for some areas of the state.

Among the nesting highlights of the summer of 1986 were: first state nesting records for Little Gull (in Jackson County) and Mountain Bluebird (which paired with an Eastern Bluebird female in Aitkin County); Snowy Egrets at Agassiz NWR; Buffleheads nesting at Agassiz for the second year in a row; and the growing success of the Eastern Bluebird Recovery Project. A discouraging note was the poor success again of Piping Plovers at Pine and Curry Islands, where only nine young were produced by eleven pairs, and at Duluth there were no breeding pairs at all.

The style used in summarizing the species accounts is the same as was used last year (***The Loon*** 58:21-23) with two exceptions. This year we used Duluth (and vicinity) and Agassiz National Wildlife Refuge when these were the only locations in which a species was seen in St. Louis and Marshall Counties respectively. This was done for Duluth because St. Louis is so large and many birds seen in Duluth aren't seen elsewhere in the county. It was done for Agassiz NWR because it is the western edge of many forest species' ranges. The other exception is that this year counties in which positive nesting was documented for the first time since 1970 are in ***bold italics***, with the **boldface type** reserved for unusual locations or dates. And on the subject of nesting records, we would like to encourage observers to go back and read the criteria for differentiating positive from probable nesting (***The Loon*** 58:22), and to keep these criteria in mind when completing nest or brood cards. This will help compilers to more readily distinguish between positive and probable nesting.

Finally, filling out seasonal report forms can be tedious, mind-numbing work and the forms almost encourage errant entries. We encourage contributors to double-check their completed forms, especially for sightings entered on the wrong line. Eliminating this common error will speed completion of Season reports and increase their accuracy.

Common Loon

Nested in Cook, Lake, St. Louis, Clearwater, Becker, Hubbard, Cass, Crow Wing, Pope, Sherburne, Wright, Anoka, Ramsey (Lake Vadnais). Also seen in 13 other counties west to Agassiz NWR, Norman, Otter Tail, and south to Stearns, Scott and Hennepin.

Pied-billed Grebe

Nested in ***St. Louis*** (Ely, SS), ***Kittson*** (AB), ***Clearwater*** (AB), Pope, Stearns, Sherburne, ***Blue Earth*** (RJ), ***Faribault*** (NHo), ***Freeborn*** (NHo), ***Fillmore*** (AP).

Also seen in 25 other counties throughout the state except Lake, Cook.

Horned Grebe

Seen in Agassiz NWR. Early migrant 7/27 Duluth (KE).

Red-necked Grebe

Nested in Clearwater, Crow Wing, Todd, Pope; probable nesting in Lyon. Also seen in Duluth (6/24, KE), Koochiching, Lake of the Woods, Agassiz NWR, Hubbard, Otter Tail, Redwood, Nicollet, Blue Earth.

Eared Grebe

Probable nesting in Lac Qui Parle (Salt Lake). Also seen in Agassiz NWR, Nicollet. Apparently much less widespread than last year; fewest reports in ten years.

Western Grebe

Nested in Todd, Pope (80 pairs, Lake Reno, NH), ***Lyon*** (HK), Jackson; probable nesting in Swift, Murray, Nicollet. Also seen in Agassiz NWR, Clearwater, Big Stone, Lac Qui Parle, Cottonwood, Freeborn (6/14, one, NH).

American White Pelican

Nested at Marsh Lake, Big Stone Co. (50 nests, JS). Also seen in ten other counties in the western regions plus Koochiching, Lake of the Woods, Beltrami in the north central and Brown, Nicollet, Freeborn in the south central.

Double-crested Cormorant

Reported nesting in more counties (nine) than in any previous year including ***Becker*** (15 nests, Sand Lake, MMo), Grant, Big Stone, Pope, Meeker (approx. 550 nests, Pigeon Lake, JS), ***Sherburne*** (SD), Le Sueur, ***Waseca*** (Elysian Lake, JS), Faribault (300 nests, Minnesota Lake, JHS); probable nesting in Kandiyohi. Also seen in 23 other counties throughout the state including Cook.

American Bittern

Seen in 26 counties in all regions but the southeast; most common in the northern regions.

Least Bittern

Nested in Agassiz NWR. Also seen in Anoka, Hennepin, Nicollet, Brown, Jackson, Lyon, Yellow Medicine.

Great Blue Heron

Nested in Lake, Hubbard (110 young, Kabekona WMA, HJF), Becker, Morrison, Grant, Pope, Meeker, Le Sueur, ***Waseca*** (approx. 150 nests, Elysian Lake, JS), Faribault; probable nesting in Big Stone, Kandiyohi, Ramsey, Sibley, Fillmore. Also seen in 44 other counties throughout the state.

Great Egret

Nested in Grant, Pope, Kandiyohi (approx. 250 nests, Long Lake, JS), Meeker, ***Waseca*** (six nests, Elysian Lake, JS); probable nesting in Agassiz NWR (approx. 15 nests, threefold increase over last year, JM), Ramsey, Faribault. Also seen in 17 other counties throughout all regions in the South except the southwest, plus Clay, Todd.

Snowy Egret

Nested at Agassiz NWR, ***Marshall*** Co. (JM, ***The Loon*** 58:134; second county in state with nesting record).

TRICOLORED HERON

Single bird photographed at Agassiz NWR, Marshall Co. (6/25, JM; 8th state record, ***The Loon*** 59:49).

Cattle Egret

Nested at Pelican Lake, Grant Co. (six nests, NH). Also seen in Pope.

Green-backed Heron

Nested in ***Brown*** (JSp); probable nesting in Pope. Also seen in 35 other counties north to Agassiz NWR, Cass, Aitkin, Pine.

Black-crowned Night-Heron

Nested in Grant, Pope; probable nesting in Meeker, Nobles, Faribault. Also seen in Agassiz NWR in the North and eight other counties South, but not in the southeast region.

Yellow-crowned Night-Heron

Probable nesting in Ramsey (Pigs Eye Lake, SSt). Also seen at Lake of the Isles, Hennepin Co. (6/23-7/26; SC, GP, ES) and Heron Lake, Jackson Co. (6/11,SDM).

IBIS SP.

Five seen 6/2 at North Heron Lake, Jackson Co. (JS, ***The Loon*** 58:141).

Tundra Swan

Seen in **Houston** (6/7, AP; most southerly

record for summer season). Single birds seen at Agassiz NWR (fide MJ), and Sartell Lagoons, Stearns Co. (7/20-8/11, NH).

[Trumpeter Swan
Nested in ***Itasca*** and ***Hennepin*** (***The Loon*** 58:194, 197-198). Also seen in Sherburne (SS/DO). All birds apparently releases from Hennepin Park's Trumpeter Swan restoration project.]

MUTE SWAN
Seen in Duluth (6/10, BE; second summer season record for state).

Snow Goose
One until 6/3 in Chippewa and two in Lac Qui Parle until mid-July (R. Pederson).

Canada Goose
Becoming increasingly common, reported from **44** counites throughout the state. Nested in 17 counties including Cook, ***Polk*** (D. Anderson),***Benton*** (NH); probable nesting in four additional counties.

Wood Duck
Nested in Lake, St. Louis, ***Kittson*** (AB), Hubbard, Wadena, Grant, Stearns, Sherburne, Ramsey, Rice, Olmsted, Mower, ***Freeborn*** (NHo), ***Blue Earth*** (GS), Brown, Nobles; probable nesting in seven additional counties. Also seen in 25 other counties throughout the state.

Green-winged Teal
As in three previous years, relatively scarce with reports from only nine counties, fewest in ten years. No nesting data. Seen in Agassiz NWR, Clay, Hubbard, Aitkin, Morrison, Anoka, Dakota, Nicollet, Chippewa.

American Black Duck
Nested in Lake,***St. Louis***. Also seen in Cook, Agassiz NWR, Houston (6/7, EMF). As last year, continued low numbers.

Mallard
Nested in Cook, Lake, Koochiching, Crow Wing, Cass, Hubbard, Clay, Pope, Stearns, Benton, Sherburne, Hennepin, Carver, ***Redwood*** (RJ), ***Freeborn*** (NHo), ***Winona*** (RJ); probable nesting in Carlton, Pine, Anoka, Ramsey, Fillmore, Also seen in 38 other counties throughout the state.

Northern Pintail
Seen in Agassiz NWR, Cass, Aitkin, Big Stone, Lac Qui Parle, Chippewa, Lyon, Murray, Nobles, Nicollet, Faribault.

Blue-winged Teal
Nested in ***Freeborn*** (NHo); probable nesting in Douglas, Anoka. Also seen in 41 other counties throughout the state except in the northern north central region.

Northern Shoveler
Nested in ***St. Louis*** (Embarrass rice paddies, SW/MS). Also seen in Koochiching, Aitkin and seven counties in the western regions.

Gadwall
Seen only in Koochiching, Agassiz NWR, Lyon, Nicollet.

American Wigeon
Nested in ***Todd*** (NH). Also seen in St. Louis, Koochiching, Agassiz NWR, Hubbard, Aitkin, Hennepin, Nicollet, Lyon.

Canvasback
Unusually scarce, seen only in Agassiz NWR.

Redhead
Nested in ***Stevens*** (NH), ***Watonwan*** (RJ); probable nesting in Lac Qui Parle, Chippewa. Also seen in Agassiz NWR, Yellow Medicine, Lyon, Murray, Jackson, Nicollet, Blue Earth, Freeborn.

Ring-necked Duck
Nested in Lake, St. Louis, Clearwater, ***Kanabec*** (MJN). Also seen in eight other counties within range plus Blue Earth.

Lesser Scaup
Seen in Agassiz NWR, Aitkin, Stevens, Kandiyohi, Chippewa, Yellow Medicine, Jackson.

Common Goldeneye
Nested in Cook, St. Louis, ***Koochiching*** (FS), ***Cass*** (GR); probable nesting in Clearwater, Hubbard. Also seen in Lake, Carlton, Lake of the Woods, Beltrami, Agassiz NWR.

Bufflehead
Nested at Agassiz NWR, Marshall Co. (JM, ***The Loon*** 58:140). Also seen at Carlos Avery Refuge, **Anoka** Co., (6/22, one, TT; fourth summer record South).

Hooded Merganser
Nested in Cook, Lake, St. Louis, Clearwater, ***Nicollet***, Hubbard; probable nesting in Meeker. Also seen in Agassiz NWR, Aitkin, Olmsted, Houston, Fillmore, Jackson (6/1, AB).

Common Merganser
Nested in Cook, ***Koochiching*** (FS). Also seen in Lake, St. Louis, Lake of the Woods.

Red-breasted Merganser
Nested in Cook (Grand Marais and Hovland). Also seen along North Shore in Lake and Duluth.

Ruddy Duck
Nested in Stearns. Also seen in 12 other counties within range plus Winona (7/26,RJ). Scarce in the north half of its range, and apparently less widespread than normal.

Turkey Vulture
Seen in 18 counties in the northern and eastern regions plus Otter Tail, Wright, Scott, Nicollet, Lyon (7/24,HK).

Osprey
Nested in Cook, St. Louis (including Fredenburg Twp.). ***Koochiching*** (fide FS), Aitkin, and at Carver Park Reserve, ***Carver*** Co. (MJN); probable nesting in Lake. Also seen in all counties in the northeast and north central regions except Wadena, plus Pennington, Mille Lacs, Pine, Wright (7/22), Olmsted (7/26, BE), Winona (6/1, KE), Houston (7/31, EMF).

Osprey nest, Lake Vermilion, St. Louis County, June, 1986. Photo by Robert E. Ferguson.

Bald Eagle
Nested in Cook, Lake, St. Louis, ***Koochiching*** (fide FS), Cass, Aitkin, Sherburne (Sherburne NWR); probable nesting in Houston. Also seen in Lake of the Woods, Beltrami, Agassiz NWR, Clearwater, Hubbard, Itasca.

Northern Harrier
Seen in 33 counties throughout the state.

Sharp-shinned Hawk
Seen in Cook, Lake, St. Louis, Agassiz NWR, Hubbard, Itasca, Aitkin, Todd, Sherburne, Houston.

Cooper's Hawk
Nested in Stearns, Ramsey. Also seen in Koochiching, Lake of the Woods, Roseau, Kittson, Agassiz NWR, Otter Tail, Grant, Sherburne, Pine, Chisago.

Northern Goshawk
Seen in St. Louis, Aitkin, Agassiz NWR.

Red-shouldered Hawk
Seen only in Crow Wing - unusually scarce.

Broad-winged Hawk
Nested in Lake, Crow Wing, Stearns. Also seen in 20 other counties east of a diagonal from Roseau to Wright and Dakota, plus Houston, Brown (until 6/14, JSp).

Swainson's Hawk
Probable nesting in Mower. Also seen in a cluster of ten counties south and west from Chippewa. Renville and Watonwan plus Washington, Ramsey, Dakota, Olmsted, Fillmore in the eastern regions. No North reports along the western border.

Red-tailed Hawk
Nested in ***Lake*** (fide SW/MS), Ramsey, ***Fillmore*** (AP); probable nesting in Pope, Anoka, Mower. Also seen in 40 other counties throughout the state.

American Kestrel
Nested in Lake, Pennington, Olmsted; probable nesting in Becker, Carver. Also seen in 55 other counties throughout the state.

Merlin
Nested in Cook (North Shore), Lake (Bald Eagle Lake); probable nesting in Fredenburg Twp., Duluth. Also seen at Agassiz NWR.

[Peregrine Falcon
Pair seen defending a cliff at John Latsch State Park, Winona Co.; both birds earlier releases of the Peregrine Falcon restoration program (H. Tordoff).]

Gray Partridge
Probable nesting in Marshall, Freeborn, Mower, Fillmore. Also seen in 25 other counties throughout the western and southern regions plus Stearns, Sherburne.

Ring-necked Pheasant
Nested in ***Todd*** (RJ), Pope, Hennepin, ***Fillmore*** (AP); probable nesting in Rock, Mower. Also seen in 32 other counties north to Becker, Aitkin, Duluth.

Spruce Grouse
Nested in Lake, ***Koochiching***, (156N R28W, female with 3 young, FS). Also seen in St. Louis.

Ruffed Grouse
Nested in Cook, Lake, St. Louis, ***Koochiching*** (FS), Hennepin; probable nesting in Aitkin, Dakota, Houston. Also seen in Agassiz NWR, Hubbard, Cass, Mille Lacs, Ramsey, Washington, Olmsted, Fillmore.

Greater Prairie-Chicken
Seen only at Felton Prairie, Clay Co.

Sharp-tailed Grouse
Nested in Aitkin. Also seen in Marshall.

Wild Turkey
Probable nesting in Fillmore AP; first summer record in county?). Also seen in Houston.

[Northern Bobwhite
Reported from Sherburne, Ramsey and Olmsted, all likely released birds, which would make this the third consecutive year with no reports of wild birds.]

Yellow Rail
Seen in Aitkin, Agassiz NWR, Wilkin.

Virginia Rail
Seen in Agassiz NWR, Clay, Grant, Pope, Todd, Aitkin, Mille Lacs, Anoka, Hennepin, Watonwan, Lyon.

Sora
Probable nesting in Freeborn. Also seen in 28 other counties in all regions, but only St. Louis in the northeast.

Common Moorhen
Seen only at Wood Lake, Hennepin Co.

American Coot
Nested in Todd, Pope, Lac Qui Parle, ***Blue Earth*** (RJ); probable nesting in Yellow Medicine. Also seen in 23 other counties in all regions but the northeast.

Sandhill Crane
Nested in Sherburne (Sherburne NWR), Anoka (Cedar Creek NHA). Also seen in Aitkin, Lake of the Woods, Roseau, Kittson, Marshall.

Black-bellied Plover
Late migrant 6/26 Duluth (KE).

Lesser Golden-Plover
Late migrants 6/12 Wadena, 6/16 Marshall, 6/21 Cook (KMH). Early migrant **7/4** Faribault (m.ob.).

SNOWY PLOVER
One seen 6/30 in Clay (KE, ***The Loon*** 58:142-143; fifth state record.)

Semipalmated Plover
Late migrant **6/26** Duluth (KE). Early migrants: North, 7/9 Marshall; South, 7/4 Faribault, 7/8 Dakota. All reports.

Piping Plover
Nested at Pine-Curry Is. and Morris Pt., Lake of the Woods Co. (only nine young from 11 breeding pairs, fewest in five years of monitoring); no breeding pairs in Duluth for first time in at least fourteen years (fide L. Pfannmuller).

Killdeer
Nested in Lake, St. Louis, ***Koochiching*** (FS), Pennington, Big Stone, Stearns, Benton, Sherburne, Wright, Hennepin, Ramsey, Brown, Rice, ***Faribault*** (RJ), ***Freeborn*** (NHo), ***Fillmore*** (RJ); probable nesting in Cook, Anoka, Mower. Also seen in 46 other counties throughout the state.

MOUNTAIN PLOVER
Two birds, 7/2-5 Faribault (RJ et al., ***The Loon*** 58:154-158; first state record).

American Avocet
Single birds seen in Agassiz NWR (6/1,JM) and Lac Qui Parle (6/14, BBS).

Greater Yellowlegs
Early migrants: North, **6/24** Marshall (AB); South, **6/23** Olmsted (AP), 6/28 Fillmore, 7/5 Faribault.

Lesser Yellowlegs
Late migrant 6/2 Duluth. Early migrants: North, 7/3 Hubbard; South, 6/28 Fillmore, 7/2 Faribault, 7/3 Ramsey.

Solitary Sandpiper
Seen in Cook (6/23, residents?, KE). Early migrants: North, 7/12 Clay; South, 6/28 Fillmore (RJ, AP), 7/2 Blue Earth, 7/3 Ramsey.

Spotted Sandpiper
Nested in Lake, ***Koochiching*** (FS). Also seen in 24 other counties in all regions.

Upland Sandpiper
Nested in Big Stone, ***Lac Qui Parle*** (RGJ). Also seen in 25 other counties east to Lake of the Woods, Aitkin, Duluth, Washington and Faribault (AB, DB; first sighting in county).

Hudsonian Godwit
Late migrant **6/18** Agassiz NWR (JM). Only report.

Marbled Godwit
Probable nesting in Agassiz NWR. Also seen in Duluth (6/11, one, RJ), Roseau, Kittson, Pennington, Red Lake, Polk, Clay, Big Stone, Swift, Jackson (7/16, DB, OJ), Faribault (7/2, fide AP).

Ruddy Turnstone
Late migrants 6/1 Marshall, 6/8 Cook, 6/12-**6/26** Duluth (KE; latest date on record). Early migrant 7/29 St. Louis. All reports.

Sanderling
Late migrants 6/8 Cook. Only report.

Semipalmated Sandpiper
Late migrants: South, 6/14 Watonwan; North, 6/10-12 Duluth. Also seen 6/26 Duluth (direction? KE). Early migrants: North, 7/9 Marshall, 7/12 Clay; South, 7/6 Faribault, 7/16 Fillmore.

Least Sandpiper
Late migrant 6/2 Duluth. Early migrants: North, 7/3 Hubbard, 7/6 Cook; South, 6/30 Dakota, 7/2 Faribault, 7/4 Jackson.

White-rumped Sandpiper
Late migrants: South, 6/1 Jackson, 6/14 Watonwan; North, 6/7 Morrison, 6/8 Cook, 6/2, 10, 12 Duluth. Early migrants 7/4 Faribault (DB, JD). All reports.

Baird's Sandpiper
Late migrants: South, 6/1 Murray; North, 6/8 Cook (KMH). Early migrant 7/27 Nicollet. All reports.

Pectoral Sandpiper
Late migrants: South, 6/7 Benton; North, 6/3 Duluth, 6/8 Cook. Early migrants: North, 7/9 Marshall, 7/12 Clay, 7/16 Cook; South, 7/3 Faribault, 7/12 Blue Earth.

Dunlin
Late Migrants: South, 6/1 Murray; North, 6/2, 4, 12 Duluth. Early migrants **7/20** Murray and Yellow Medicine (HK). All reports.

Stilt Sandpiper
Early migrants: North, 7/9 Marshall, 7/12 Clay, 7/19 Duluth; South 7/2-3 Faribault, 7/19 Yellow Medicine, 7/20 Benton. All reports.

Short-billed Dowitcher
Early migrants: North, 7/3 Hubbard, 7/9 Marshall, 7/18 Cook, 7/19 Duluth; South, 7/12 Blue Earth, 7/22 Hennepin. All reports.

Long-billed Dowitcher
Early migrants 7/4-5 Faribault (JD, JP/AM). Only reports.

Common Snipe
Seen in 23 counties throughout the northern and east central regions plus Otter Tail, Pope, Stearns, Mille Lacs, Houston.

American Woodcock
Nested in Cook, Lake, St. Louis, Aitkin. Also seen in Koochiching, Lake of the Woods, Agassiz NWR, Clearwater, Anoka, Houston. Fewer observations from outside the northeast and north central regions than usual.

Wilson's Phalarope
Nested in ***Big Stone*** (R. Pederson). Also

seen in Marshall, Mahnomen, Clay, Wadena, Lac Qui Parle, Yellow Medicine, Murray, Watonwan, Faribault (7/4, 6; DB, AB).

Red-necked Phalarope

Late migrants: South, **6/14** Watonwan (RJ); North, **6/16** Agassiz NWR (JM). Early migrants **7/12** Clay (JD, BE). All reports.

LAUGHING GULL

Two birds seen 6/1 in Fillmore (AP, ***The Loon*** 58:137).

Franklin's Gull

Nested at North Heron Lake, Jackson Co. (approx. 5000 nests, JS). Also seen in six counties in the northwest region plus Lake of the Woods, Pope, Yellow Medicine, Faribault, Nicollet, Wright, Duluth (6/11, one, RJ).

LITTLE GULL

Nested at North Heron Lake, ***Jackson*** Co. (JS, et al., ***The Loon*** 58:166-170; first state nesting record).

Little Gull, North Heron Lake, Jackson County, June 5, 1986. Photo by Gary Swanson.

COMMON BLACK-HEADED GULL

Single bird, 5/28-7/16 at North Heron Lake, Jackson Co. (m.ob., ***The Loon*** 58:104-107; first state record).

Bonaparte's Gull

Early migrants 7/20 Lake of the Woods, 7/24 Crow Wing and Mille Lacs. All reports.

Ring-billed Gull

Nested in Duluth and at Marsh Lake, ***Big Stone*** Co. (three nests, JS; fifth county in state with positive nesting). Also seen in 29 other counties throughout the state.

Herring Gull

Nested in Cook, Lake, St. Louis, ***Koochiching*** (FS). Also seen in Lake of the Woods, Beltrami, Itasca, Hubbard, Todd, Pope, Freeborn (6/2, NHo).

Caspian Tern

Seen early June in Jackson, St. Louis, Cass; late June in Todd, Clearwater; early July in Faribault, Hennepin; late July in Duluth, Itasca, Clearwater, Pope, Jackson.

SANDWICH TERN

First state record 6/11 Duluth (***The Loon*** 58:103-104).

Common Tern

Nested in Duluth (13 nests, NH). Also seen in Lake of the Woods, Clay, Hubbard, Todd.

Forster's Tern

Nested in Todd, Pope (100+ pairs on Lake Reno, NH), ***Jackson*** (North Heron Lake; JS, NH). Also seen in 14 other counties within range plus Pine (6/22, RJ), Winona (7/26, RJ).

LEAST TERN

Seen in Duluth (***The Loon*** 58:138) and Olmsted (JB, ***The Loon*** 58:129-130; AP, ***The Loon*** 58:144-145; first southeast region sightings).

Black Tern

Nested in Ramsey; probable nesting in Anoka. Seen in 41 counties in all regions but only St. Louis in the northeast.

Rock Dove

Nested in Stearns. Seen in 50 other counties throughout the state.

Mourning Dove

Nested in Morrison, Stearns, Sherburne, Washington, Dakota, Brown, ***Freeborn*** (NHo), ***Mower*** (RRK); probable nesting in Clay, Anoka, Cottonwood, Olmsted, Fillmore. Also seen in 49 other counties throughout the state including Cook, Lake.

Black-billed Cuckoo
Nested in ***Rice*** (FKS); probable nesting in Olmsted. Also seen in 42 other counties throughout the state.

Yellow-billed Cuckoo
Seen in 12 South counties plus Wadena, Clearwater, Beltrami.

Eastern Screech-Owl
Nested in Hennepin, Rice. Also seen in Ramsey, Freeborn.

Great Horned Owl
Nested in Traverse, Stearns, Hennepin, Ramsey; probable nesting in Duluth, Carver, Dakota, ***Blue Earth***. Also seen in 24 other counties in all regions, but scarce in the north central and northeast.

Barred Owl
Nested in ***Todd*** (L. Bilbro), Rice ***Brown*** (JSp; most southwesterly nesting record in state); probable nesting in Duluth, Olmsted, Fillmore. Also seen in 12 other counties east of a diagonal from Agassiz NWR to Wright and Fillmore.

Great Gray Owl
Seen in Lake (6/19 Whyte Road, two calling, SW/MS), Aitkin, Beltrami, Lake of the Woods.

Long-eared Owl
Nested in Polk (SKS), ***Stearns*** (NH).

Short-eared Owl
Following three summers with no reports, seen in five counties in the northwest region plus Aitkin.

BOREAL OWL
Singing male, 7/22 Lake (same location as last year, SW/MS).

Northern Saw-whet Owl
Nested in Lake, Crow Wing, ***Polk*** (SKS).

Common Nighthawk
Nested in Hennepin, Lake, Rice, ***Brown*** (JS), ***Nobles*** (fide JS). Also seen in 30 other counties in all regions, but only Agassiz NWR from the western regions in the North.

Whip-poor-will
Nested in Anoka. Also seen in Cook, Lake, St. Louis, Aitkin, Cass, Marshall, Dakota, Fillmore, Houston.

Chimney Swift
Probable nesting in Clay. Also seen in 50 other counties throughout the state.

Ruby-throated Hummingbird
Nested in ***Koochiching*** (MS). Also seen in 32 other counties in all regions except the southwest.

Belted Kingfisher
Nesting in St. Louis, Stearns; probable nesting in Lake of the Woods, Aitkin, Pope. Seen in 41 other counties throughout the state.

Red-headed Woodpecker
Nested in Murray, Nobles; probable nesting in Pennington. Also seen in 41 other counties south of a line from Kittson to Duluth.

Red-bellied Woodpecker
Nested in Stearns. Also seen in 16 other counties west and north to Lyon, Pope, Morrison, Anoka.

Yellow-bellied Sapsucker
Nested in Clay, Ramsey, Brown; probable nesting in Koochiching, Winona. Also seen in 27 other counties, but only Mille Lacs from the central and Brown from the south central regions and none from the southwest.

Downy Woodpecker
Nested in Brown; probable nesting in Koochiching, Anoka, Dakota, Olmsted, Mower, Cottonwood. Also seen in 42 other counties throughout the state.

Hairy Woodpecker
Nested in Lake, Hubbard, Pope, Ramsey, Brown; probable nesting in Koochiching, Crow Wing, Anoka, Hennepin, Cottonwood, Mower, Fillmore. Also seen in 33 other counties throughout the state.

THREE-TOED WOODPECKER
Seen 6/11 Cook (three miles s.w. of Lima Mt., BE).

Black-backed Woodpecker
Nested in Cook. Also seen in Lake.

Northern Flicker
Nested in Cook, Lake, ***Dakota*** (TT), ***Mower*** (RRK); probable nesting in Crow Wing, Morrison, Stearns, Cottonwood, Olm-

sted, Fillmore. Also seen in 53 other counties throughout the state.

Pileated Woodpecker
Nested in Cook, Ramsey,***Mower*** (RRK). Also seen in 32 other counties in all regions except the southwest.

Olive-sided Flycatcher
Late migrants in two North and nine South counties including 6/21 Houston (JMo). Also seen in nine counties in the northeast and north central regions. Early migrant 7/29 Ramsey (KB).

Eastern Wood-Pewee
Nested in ***Ramsey*** (KB), Scott, Brown; probable nesting in Pennington, Freeborn. Also seen in 45 other counties throughout the state.

Yellow-bellied Flycatcher
Late migrants 6/2 Mille Lacs, 6/3 Otter Tail, **6/11** Ramsey (KB). Also seen in Cook, Lake, St. Louis, Itasca.

Acadian Flycatcher
Probable nesting in Scott (late May, nest building at Murphy-Hanrahan Park, B. Fall). Also seen at Murphy-Hanrahan 7/3-4 (SC, TT; first summer sighting in Scott), Houston.

Alder Flycatcher
Late migrants 6/1 Brown and Houston, 6/12 and 19 Olmsted. Nested in ***Ramsey*** (Deep Lake, three young in nest, KB; most southerly nesting record in state). Also seen in 27 other counties north from Washington, Wright, Stearns (probable late migrants), Douglas. Absent along the western margin.

Willow Flycatcher
Probable nesting in Ramsey. Also seen in 15 other counties south and west of a diagonal from Marshall, **Clearwater** (AB), **Hubbard** (JL; first sighting in county), Ramsey, Houston, but absent from the central and south central regions.

Least Flycatcher
Nested in ***Hubbard*** (JL), ***Brown*** (JSp). Also seen in 46 other counties throughout the state.

Eastern Phoebe
Nested in ***Koochiching*** (FS), Lake of the Woods, Clearwater, Cass, Crow Wing, Morrison, Pope, Stearns, Sherburne, ***Nicollet*** (JS); probable nesting in Anoka, Olmstead. Also seen in 34 other counties through the state.

Great Crested Flycatcher
Nested in ***Pennington*** (SKS); probable nesting in Clearwater. Also seen in 50 other counties throughout the state.

Western Kingbird
Nested in Clay, Pipestone; probable nesting in Sherburne, Lac Qui Parle. First county sightings in **Koochiching** (6/4, FS), Watonwan (AB, DB). Also seen in 20 other counties within range.

Eastern Kingbird
Nested in St. Louis, Anoka, ***Pipestone*** (JP), Brown, ***Rice*** (FKS), Olmsted; probable nesting in Ramsey, Dakota, Mower. Also seen in 53 other counties throughout the state. Most widely reported flycatcher.

Horned Lark
Probable nesting in Fillmore. Seen in 46 other counties in all regions except the northeast and adjacent counties in the north central and east central.

Purple Martin
Nested in Lake of the Woods, Clay, Washington, Dakota, Rice. Also seen in 49 other counties throughout the state.

Tree Swallow
Nested in 22 counties throughout the state including ***Koochiching*** (FS), ***Yellow Medicine*** (J. Gullickson), ***Mower*** (RRK); probable nesting in five additional counties. Most county breeding reports in at least 13 years. Also seen in 34 other counties throughout the state.

Northern Rough-winged Swallow
Nested in ***Brown*** (JSp); probable nesting in Koochiching, Anoka, Dakota. Also seen in 28 other counties in all regions.

Bank Swallow
Nested in Brown; probable nesting in Clay, Pope, Ramsey, Fillmore. Also seen in 37 other counties throughout the state.

Cliff Swallow
Nested in ***Koochiching*** (FS), Lake of the Woods, ***Dakota*** (TT); probable nesting in

Cook, Lake, Cass, Stearns, Benton, Brown. Also seen in 41 other counties throughout the state.

Barn Swallow
Nested in ***Koochiching*** (FS), Cass, Pope, Stearns, Wright, Hennepin, Rice, ***Mower*** (RRK), ***Freeborn*** (NHo), ***Jackson*** (NH); probable nesting in Cook, Lake of the Woods, Clay, Anoka, Olmsted, Fillmore. Also seen in 52 other counties throughout the state.

Gray Jay
Nested in St. Louis; probable nesting in Cook, Koochiching, Hubbard. Also seen in Lake, Itasca, Beltrami.

Blue Jay
Nested in Morrison, Stearns, Hennepin, Ramsey, Dakota; probable nesting in Pennington, Crow Wing, Pope, Anoka, Cottonwood. Also seen in 49 other counties throughout the state.

Black-billed Magpie
Nested in ***Aitkin*** (Fleming Twp., WN). Also seen in St. Louis (third consecutive year pair seen at Tower-Soudan State Park, SW/MS), Lake of the Woods, Roseau, Kittson, Marshall, Polk, Red Lake, Clay.

American Crow
Nested in St. Louis, ***Marshall*** (SKS), Stearns, ***Benton*** (NH); probable nesting in Cass, Crow Wing, Anoka, Freeborn. Also seen in 60 other counties throughout the state.

Common Raven
Nested in Cook, (nest 100′ up on face of 200′ cliff near Hungry Jack Lake, used for at least fourth year, KMH), Lake, ***Koochiching*** (FS). Also seen in nine other counties throughout range.

Black-capped Chickadee
Nested in Cass, Hennepin, Washington, ***Dakota*** (RH), Rice, ***Dodge*** (JB), Olmsted, Brown, Cottonwood; probable nesting in Pennington, Stearns, Benton, Anoka (53 nests found, JH). Also seen in 38 other counties throughout the state.

Boreal Chickadee
Seen in Cook, Lake, St. Louis.

Tufted Titmouse
Seen in Houston.

Red-breasted Nuthatch
Probable nesting in Cook. Also seen in eight other counties throughout the northeast and north central regions plus Todd (RJ), Ramsey.

White-breasted Nuthatch
Nested in Morrison; probable nesting in Pennington, Becker, Hubbard, Crow Wing, Pope, Stearns, Anoka, Mower. Also seen in 35 other counties throughout the state.

Brown Creeper
Probable nesting in Lake of the Woods. Also seen in nine other counties throughout the northeast and north central regions plus Ramsey.

CAROLINA WREN
Pair seen in Rochester, Olmsted Co. 7/22 to mid-August (AP et al., ***The Loon*** 58:143-144; first summer sighting in state in at least ten years).

House Wren
Nested in 14 counties throughout the state including Todd, ***Freeborn*** (NHo); probable nesting in two additional counties. Also seen in 51 other counties throughout the state.

Winter Wren
Nested in Cook, Lake, ***Cass*** (GR). Also seen in St. Louis, Koochiching, Lake of the Woods, Agassiz NWR, Clearwater, Itasca.

Sedge Wren
Seen in 44 counties throughout the state.

Marsh Wren
Seen in 37 counties in all regions except the northeast and adjacent Koochiching, Itasca and Pine counties.

Golden-crowned Kinglet
Probable nesting in Hubbard. Also seen in seven other counties within range in the North.

Ruby-crowned Kinglet
Seen in eight counties within range plus Meeker (TM; first July sighting in South in at least 16 years).

Blue-gray Gnatcatcher
Nested in ***Ramsey*** (KB), Brown (fifth consecutive year, JSp); probable nesting in Anoka, Mower. Also seen in Washington,

Scott, Wabasha, Olmsted, Winona, Fillmore, Houston.

Eastern Bluebird

The Bluebird Recovery Project (Mpls. Audubon and DNR Nongame) reported 8,883 nest boxes produced 2,801 broods, 12,160 eggs and 10,430 subsequent fledglings. Not surprisingly, a number of contributors commented that numbers were up. Nesting was reported in 62 counties throughout the state including 24 county firsts (Bluebird Recovery Project unless otherwise indicated) in ***Lake of the Woods, Roseau, Kittson, Marshall, Norman, Wadena*** (DB), ***Douglas, Todd, Kanabec, Isanti, Dakota, Big Stone, Kandiyohi, Renville, Redwood, Murray*** (N. DeKam), ***Nobles, Jackson, Watonwan, Nicollet, Faribault, Waseca, Mower*** (RRK), ***Winona;*** probable nesting in Pennington. Also seen in 11 other counties.

MOUNTAIN BLUEBIRD

Male paired with Eastern Bluebird in ***Aitkin*** to produce two hybrid offspring (m.ob., ***The Loon*** 58:194-196; first nesting record [half record?] in state).

Veery

Probable nesting in Scott. Seen in 30 other counties north and east of a line from Ramsey to Stearns and Clay. Also seen in Houston on 6/7 (AP).

Swainson's Thrush

Seen in Cook, Lake, St. Louis (including Duluth), Koochiching, Lake of the Woods, Beltrami, Hubbard.

Hermit Thrush

Seen in St. Louis, Itasca. Also seen in nine other counties throughout the northeast and north central regions plus Mille Lacs, Pine.

Wood Thrush

Nested in Brown. Also seen in 15 other counties in a narrow band extending from Houston to Koochiching and Lake of the Woods plus Cook, Duluth, Pope, Nicollet, Blue Earth.

American Robin

Nested in 21 counties; probable nesting in five additional counties. Seen in 42 other counties throughout the state.

Gray Catbird

Nested in Morrison, ***Pope*** (DR), Washington, Brown; probable nesting in Benton, Anoka. Also seen in 52 other counties throughout the state.

Northern Mockingbird

Seen in Cook for the third summer in the last four years (6/11-12, SL). Also first summer sighting in Wilkin in at least 13 years (7/11, JD).

SAGE THRASHER

One seen 6/16 at Carlos Avery Refuge, Anoka Co. (***The Loon*** 58:139; third state record).

Brown Thrasher

Nested in ***Clearwater*** (AB), Stearns, ***Benton*** (NH), Sherburne, Ramsey, Brown, Olmsted; probable nesting in Cottonwood, Blue Earth, Freeborn. Also seen in 49 other counties throughout the state.

Cedar Waxwing

Nested in Lake of the Woods, Sherburne, Ramsey, Carver, Dakota, Olmsted; probable nesting in Anoka, Cottonwood. Also seen in 42 other counties throughout the state.

Loggerhead Shrike

Nested in Clay, Morrison, Benton; probable nesting in Meeker and nine other counties (***The Loon*** 58:151-154). Also seen in Polk, Olmsted, Mower.

European Starling

Nested in ***Koochiching*** (FS), Marshall, ***Morrison*** (NH), Pope, Stearns, Dakota, ***Brown*** (JSp), ***Dodge*** (JB); probable nesting in Pennington, Clay, Cass, Hennepin, Olmsted. Also seen in 47 other counties throughout the state.

WHITE-EYE VIREO

Seen 6/6-7/1 in Martin (m.ob., ***The Loon*** 58:139; fourth summer record for state).

Bell's Vireo

Seen in Dakota, Wabasha, Houston.

Solitary Vireo

Nested in Cook. Also seen in Lake, St. Louis, Koochiching, Lake of the Woods, Beltrami, Hubbard, Becker (6/13, BBS).

Yellow-throated Vireo
Nested in Crow Wing, ***Anoka*** (JH), Ramsey. Also seen in 27 other counties in all regions except the northeast, but concentrated in a diagonal band extending from Houston to Lake of the Woods.

Warbling Vireo
Probable nesting in Houston. Seen in 51 other counties throughout the state including Cook, Lake, St. Louis. Most widely reported vireo.

Philadelphia Vireo
Nested in Cook. Also seen in Duluth (7/25, CO).

Red-eyed Vireo
Nested in ***Koochiching*** (FS), Cass, ***Sherburne*** (SD), Ramsey; probable nesting in Crow Wing, Anoka, Brown. Also seen in 39 other counties in all regions but mostly east of a diagonal from Roseau to Wright and Fillmore.

Blue-winged Warbler
Probable nesting in Ramsey. Also seen in Anoka, Washington, Scott, Houston.

Golden-winged Warbler
Seen in Cook (several singing near Grand Marais, WP), St. Louis (south half), Itasca, Koochiching (6/19, FS), Lake of the Woods (three, BBS), Beltrami, Clearwater, Cass, Mille Lacs, Kanabec, Anoka.

Tennessee Warbler
Late migrant 6/1 Clay. Seen in Cook, Lake, St. Louis, Koochiching, Lake of the Woods, Beltrami. Early migrants 7/14 Dakota (JD), 7/20 Wright, 7/25 Hennepin, 7/28 Brown.

Nashville Warbler
Nested in Koochiching. Also seen in 16 other counties throughout range south to Anoka. Early migrants 7/20 Wright (RJ), 7/25 Hennepin, 7/26 Ramsey, 7/26 Houston.

Northern Parula
Seen in ten counties within range.

Yellow Warbler
Nested in ***Becker*** (BK), ***Pope*** (DR), Big Stone, Sherburne, Ramsey, Brown; probable nesting in Koochiching, Anoka, Freeborn. Also seen in 43 other counties throughout the state.

Chestnut-sided Warbler
Probable nesting in Koochiching. Seen in 22 other counties throughout range but status of birds (migrant/ resident?) south of Anoka uncertain; 6/14 Ramsey, 7/25 Hennepin, 6/6 Dakota, 7/17 Houston.

Magnolia Warbler
Seen in Cook, Lake, St. Louis, Carlton, Lake of the Woods, Beltrami.

Cape May Warbler
Seen in Cook, Lake, St. Louis, Agassiz NWR.

Black-throated Blue Warbler
Seen in Cook, Lake.

Yellow-rumped Warbler
Probable nesting in Koochiching. Also seen in 11 other counties throughout range plus Kittson (6/24, AB; first summer sighting in county?).

Black-throated Green Warbler
Seen in Cook, Lake, St. Louis, Carlton, Itasca, Koochiching, Lake of the Woods, Roseau, Clearwater.

Blackburnian Warbler
Nested in Duluth; probable nesting in Koochiching. Also seen in seven other counties throughout the northeast and north central regions plus Isanti (six singing males at Cedar Creek NHA, JH).

Pine Warbler
Nested in ***St. Louis*** (Fredenburg Twp., CO). Also seen in 13 other counties throughout range.

Palm Warbler
Seen in Lake (7/1 Sand Lake Peatland, SW/MS; first summer sighting in county in at least 13 years). St. Louis, Koochiching, Agassiz NWR.
Seen in Cook.

Bay-breasted Warbler
Seen in Cook.

Cerulean Warbler
Probable nesting in Ramsey. Also seen in Mille Lacs, Scott, Houston.

Black-and-white Warbler
Probable nesting in Koochiching. Also seen in 11 other counties throughout the northeast and north central regions plus Agassiz NWR, Anoka.

American Redstart
Nested in ***Becker*** (BK), Ramsey; probable nesting in Fillmore. Seen in 32 other counties in all regions except the southwest and only Otter Tail in the west central.

Prothonotary Warbler
Probable nesting in Houston. Also seen in Ramsey, Dakota, Wabasha, Winona.

Ovenbird
Nested in Ramsey, Brown; probable nesting in Anoka. Also seen in 29 other counties, but not west of a line from Pennington to Becker, Stearns, Dakota and Fillmore, except in Brown.

Northern Waterthrush
Seen in Cook, Lake, St. Louis, Koochiching, Lake of the Woods, Beltrami, Agassiz NWR, **Kittson** (6/24, AB).

Louisiana Waterthrush
Seen in Houston (Beaver Creek Valley State Park).

Connecticut Warbler
Seen in eight counties within range plus Wadena (6/7, BBS), Mille Lacs (6/2, migrant?, DB).

Mourning Warbler
Late migrants 6/2 Houston, 6/6 Clay. Probable nesting in Crow Wing. Also seen in 19 other counties within range west to Roseau, Otter Tail and south to Ramsey, Washington.

Common Yellowthroat
Nested in Anoka, ***Freeborn*** (NHo); probablae nesting in Crow Wing, Brown. Also seen in 63 other counties throughout the state. Most widely reported warbler.

Wilson's Warbler
Seen in Cook (6/8, BBS; 6/23, one, KE), Lake (6/19 Whyte Rd., SW/MS), St. Louis (6/8 Ely, SS).

Canada Warbler
Seen in ten counties within range.

YELLOW-BREASTED CHAT
Singing male at Reno, Houston Co. (no date, SSt).

Scarlet Tanager
Nested in Anoka; probable nesting in Carver. Also seen in 28 other counties west to Fillmore, Brown, Pope, Otter Tail, Red Lake and Agassiz NWR.

Northern Cardinal
Nested in Sherburne, Brown ***Rice*** (GR), Olmsted; probable nesting in Hennepin. Also seen in 21 other counties throughout the South, including Rock.

Rose-breasted Grosbeak
Nested in Sherburne; probable nesting in Pennington, Pope, Olmsted. Also seen in 49 other counties throughout the state.

Blue Grosbeak
Probable nesting in Murray. Also seen in Pipestone, Nobles.

Indigo Bunting
Nested in Brown; probable nesting in Anoka. Also seen in 54 other counties throughout the state including Hennepin where for the second year a male sang in June and July at 2nd Avenue and 4th Street in the Warehouse District of Minneapolis (ES).

Dickcissel
Seen in 25 counties north to Dakota, Sherburne, Stearns and Swift plus Clay (JP/AM). Hundreds seen in Fillmore 7/16 (AP) and 40 in two square miles in Mower on 7/13 (AP).

Rufous-sided Towhee
Probable nesting in Ramsey. Seen in 12 other counties throughout range in the north central, east central and southeast regions plus Red Lake (BBS; first sighting in county), Nicollet (6/6, 7/18, JF), Scott.

Chipping Sparrow
Nested in 13 counties including ***Benton*** (NH), ***Rice*** (GR); probable nesting in six additional counties. Also seen in 44 other counties throughout the state.

Clay-colored Sparrow
Nested in ***Benton*** (NH), Sherburne. Also seen in 40 other counties in all regions except the south central.

Field Sparrow
Nested in Brown, ***Mower*** (RRK); probable nesting in Anoka, Olmsted. Also seen in 19 other counties throughout the South plus Morrison, Otter Tail, Cass.

Vesper Sparrow
Nested in Stearns, Benton. Also seen in 52 other counties throughout the state except the northeast region.

Lark Sparrow
Probable nesting in Clay, Otter Tail (one long-tailed young out of nest being fed by adults, Seven Sisters Prairie, SDM), Anoka. Also seen in Polk, Red Lake, Isanti, Dakota, Wabasha, Olmsted, Winona, Houston.

Savannah Sparrow
Seen in 55 counties throughout the state.

BAIRD'S SPARROW
Seen in Clay (7/6 Felton prairie, LCF) and Crow Wing (6/24-28, ***The Loon*** 58:131-132; first sighting in state away from western prairies). These are the first summer reports in the state since 1980.

Grasshopper Sparrow
Nested in ***Ramsey*** (KB). Also seen in **38** other counties throughout the state except in the northeast region and adjacent Koochiching, Itasca and Pine counties. More reports than usual.

Henslow's Sparrow
Seen in Norman (***The Loon*** 58:130), **Aitkin** (6/21-27, one male, Rice Lake NWR, m.o.b.) Winona (O.L. Kipp State Park).

Le Conte's Sparrow
Seen in 14 counties in the north half of the state east to St. Louis (6/15 Ely, SS) and south to Wilkin, Douglas (6/19, RJ), Todd and Aitkin. Also seen in Ramsey (m.ob.).

Sharp-tailed Sparrow
Seen in Marshall, Mahnomen, Aitkin.

Song Sparrow
Nested in Koochiching, ***Clay*** (LCF), Anoka, Brown, Olmsted; probable nesting in Pennington, Clearwater, Hubbard. Also seen in 57 other counties throughout the state. Most widely reported sparrow.

Henslow's Sparrow, Rice Lake NWR, Aitkin County, June 22, 1986. Photo by Warren Nelson.

Lincoln's Sparrow
Seen in Cook, Lake.

Swamp Sparrow
Nested in ***Aitkin*** (WN). Also seen in 36 other counties but absent in the west central and scarce in the northwest regions.

White-throated Sparrow
Late migrant 6/3 Clay. Nested in Lake, ***Koochiching*** (MS). Seen in all counties in the northeast and north central regions except Crow Wing, plus Roseau, Marshall, Mille Lacs.

Dark-eyed Junco
Probable nesting in St. Louis. Also seen in eight other counties throughout range plus **Mille Lacs** (6/9, BBS).

Chestnut-collared Longspur
Seen at Felton prairie in Clay Co.

Bobolink
Seen in 57 counties throughout the state.

Red-winged Blackbird
Nested in Pennington, Pope, Anoka, Ramsey, Olmsted, ***Jackson*** (NH); probable nesting in Crow Wing, Hennepin, Rice, Freeborn. Also seen in 56 other counties throughout the state.

Eastern Meadowlark
Probable nesting in Mower. Also seen in 18 other counties within range but not northeast of Duluth.

Western Meadowlark
Probable nesting in Olmsted. Also seen in 53 other counties as far as east as Koochiching, Crow Wing, Isanti, Dakota, Houston.

Yellow-headed Blackbird
Needed in Pope, Lac Qui Parle, ***Rice*** (GR); probable nesting in Todd, Anoka, Hennepin, Freeborn. Also seen in 44 other counties in all regions except the northeast.

RUSTY BLACKBIRD
Nested in Cook (McDonald Lake, T. Webb; third state nesting record).

Brewer's Blackbird
Nested in Clay (MMo). Also seen in 21 other counties throughout the North except Lake and Cook, plus Stearns, Wright, Dakota, Sibley, Watonwan, Lyon, Murray, Jackson.

Common Grackle
Nested in Clay, Pope, Big Stone, Lac Qui Parle, Lyon, ***Jackson*** (NH), Washington,, Dakota, Olmsted; probable nesting in Cook, Cass, Hennepin, Rice, Cottonwood. Also seen in 49 other counties throughout the state.

Brown-headed Cowbird
Parasitized nests in Big Stone, Pope, Stearns, Sherburne, Anoka, Hennepin, ***Ramsey*** (KB,NH), Brown, ***Jackson*** (NH), ***Olmsted*** (JB); probable in Clearwater. Most commonly parasitized hosts were Red-eyed Vireos, Red-winged Blackbirds and Yellow Warblers. Also seen in 51 other counties throughout the state.

Orchard Oriole
Nested in Big Stone, Brown, ***Olmsted*** (AP). Also seen in 15 other counties south and west of a line from Clay to Otter Tail, Meeker, Wabasha except in the south half of the south central region.

Northern Oriole
Nested in ***Clearwater*** (AB), Ramsey, Brown, ***Freeborn*** (NHo); probable nesting in Pennington, Becker, Pope, Sherburne, Anoka, Rice, Fillmore. Also seen in 48 other counties throughout the state including St. Louis and Lake in the northeast.

Purple Finch
Probable nesting in Crow Wing. Also seen in all counties in the northeast and north central regions except Wadena, plus Agassiz NWR, Pennington, Clay (all summer, MMo), Mille Lacs, Washington (all summer at Forest Lake, WL), Ramsey (7/31, KB).

Red Crossbill
Seen in Cook (scarce, KMH), Lake (first seen 6/20, gradually increasing until end of season, SW/MS), Duluth (one, 7/31, KE), Lake of the Woods, Hubbard (7/5, AB), Olmsted (7/13, JB; 7/24, BE), Hennepin (7/21, T. Guntzel).

Red Crossbills, Crystal, Hennepin County, July 21, 1986. Photo by Tom Guntzel.

White-winged Crossbill
Seen in Cook (KMH, KE).

Pine Siskin
More widespread than ever with reports from 25 counties including nesting in Stearns, Hennepin, ***Rice*** (FKS; ***The Loon*** 58:190); probable nesting in Olmsted, Mower. Also seen throughout the northern regions plus Todd, Chippewa, Ramsey, Dakota, Houston.

American Goldfinch
Nested in Stearns, Sherburne, Ramsey, Brown; probable nesting in Crow Wing. Also seen in 58 other counties throughout the state.

Evening Grosbeak
Probable nesting in St. Louis. Also seen in Cook, Lake, Koochiching, Clearwater, Aitkin, Carlton.

House Sparrow
Nested in Pennington, ***Pope*** (DR), Stearns, ***Sherburne*** (SD), ***Benton*** (NH), ***Washington*** (WL), Carver, ***Rice*** (FKS), ***Freeborn*** (NHo), Lac Qui Parle; probable nesting in Clay, Dakota. Also seen in 47 other counties throughout the state.

CONTRIBUTORS
(*Nest or Brood Cards Only)

Karl Bardon
Al Bolduc
Don Bolduc
Jerry Bonkoski
Breeding Bird Survey
Steve Carlson
*Steven T. Delehanty
Joanne Dempsey
Kim Eckert
Fred Eckhardt
Bob Ekblad
Laurence and Carol Falk
Mrs. L. A. Feil
Herbert and Jeanette Fisher
Eugene and Marilynn Ford
John Frentz
Merrill Frydendall
*Debra Grotenhuis
Marshall Helmberger
Nestor Hiemenz (NH)
Ken and Molly Hoffman
*R. B. Hofstead
Nancy Holway (NHo)
James L. Howitz
Robert B. Janssen
Oscar Johnson
Roger and Gretchen Johnson
*Byron Kinkade
Ron and Rose Kneeskern
Henry Kyllingstad
Jean Leckner
William Longley
Sandy Lunke
Thomas R. McMullen
Don and Wynn Mahle
Grace Marquardt
Monte Mason (MM)
Jim Mattsson (JM)
Steve and Diane Millard
Mark Moore (MMo)
John Morrison (JMo)
Warren Nelson
*Mark and Jean Newstrom
Carol Oleson
Johanna Pals
Jon Peterson/Ann McKenzie
Greg Pietila
Anne Marie Plunkett
Walter Popp
Dan Rakstad
*G. N. Rysgaard
Sharon Sarappo/Dan Orr
*John Schladweiler (JS)
Steven Schon (SS)
Gary Simonson
Mark Skadsen
Jack A. Sprenger (JSp)
Evelyn T. Stanley
Shelley and Keith Steva
Forest and Kirsten Strnad
Steve Stucker (SSt)
Frank Swendsen
Tom Tustison
U. S. Fish and Wildlife Service
*USFS - Duluth
*USFS - Isabella Ranger District
Steve Wilson/Mary Shedd
Dave Zumeta

CORRECTION
For Fall Season 1985 Sandhill Cranes on 8/15 were seen by Fred Eckhardt in Kittson and Roseau Cos., not in Lac Qui Parle.

241 Grouse Lake Road, Isabella, MN 55607.

Breeding Birds at Hovland Woods, Cook County, Minnesota, 1983

Gerald J. Niemi

Introduction

Inventories of plant and animal communities are a fundamental requirement in the assessment of land and water areas, especially in developing long range plans for these areas. These inventories provide information on what species are common in the area, and, more importantly, identify what species are interesting or unique. Furthermore, these data provide a basis for making decisions on whether the area should be maintained in its present state or changed to accommodate a particular community or species. Here I present the results of an inventory of the breeding birds identified at Hovland Woods, a Nature Conservancy-owned tract of land located in extreme northeastern Minnesota. As part of this inventory, I also provide general comments on assessing bird populations with respect to the use of line transect counts.

Study Area

Hovland Woods (Township 63N, Range 3E, Sec. 34) is a 65 hectare tract of land located about 10 kilometers northwest of Hovland in Cook County, northeastern Minnesota. The tract is generally wooded with two small streams located on the southern edge. Elevation on the tract ranges from about 425 to 500 m. Soils are derived from non-calcareous glacial drift of variable depth. In general, the habitat types on the tract include seral stages of a combination of the Great Lakes spruce-fir forests, northern hardwoods-fir forest (see Kuchler 1964), and several wetland types such as those dominated by white cedar (**Thuja occidentalis**), sedges (**Carex spp.**), and shrubs (**Alnus spp.**) (Cowardin **et al.** 1977). The predominant tree species in areas above 440 meters include sugar maple (**Acer saccharum**), paper birch (**Betula papyrifera**), balsam (**Abies balsamea**), white pine (**Pinus strobus**), and white spruce (**Picea glauca**), while the predominant species in the lower elevations include balsam, paper birch, black spruce (**Picea mariana**), and white cedar. In addition to the 65 hectare area of Hovland Woods, the adjacent 32 ha area north of Hovland Woods was also included in this study.

Methods

The major purpose of this study was to provide an inventory of the breeding birds at Hovland Woods, and it is best if these data can be as quantitative as possible. The transect count method is ideally suited for this purpose because: (1) almost the entire area at Hovland Woods could be sampled, (2) the breeding species and their relative abundance could be assessed, and (3) observer disturbance was minimal. Briefly, this method involves walking a predetermined path or trail, termed a transect, and recording all birds seen or heard while traversing this transect (Emlen 1971, Järvinen and Väisänen 1975).

The area was censused by two different observers (JoAnn Hanowski and the author) during five different days from mid-May to early July. Each transect was approximately 3-km long and censused at the approximate rate of 1km/hr. Observations of birds were made on 15 May; 7, 8, and 30 June; and 1 July 1983. All census data were gathered during periods of reasonably good weather (e.g., no precipitation and only light wind) and between 0530 and 0930. Birds observed along the transect were estimated as belonging to the main belt (within 25 m on either side of the transect line) or supplementary belt (> 25 m from the transect line) (Järvinen and Väisänen 1975). The transect lines were run through different portions of Hovland Woods, although there were places where lines intersected. These lines were predetermined from topographic maps (1:24,000) and positioned such that most of the Hovland Woods tract and the 32 ha area to the north of the tract were traversed during the census periods. Therefore, all the major habitats were covered during each census. Because of the extensive relief throughout the area and the presence of landscape features such

Table 1. Species and number of individuals observed in main belt (MB) and supplementary belt (SB) for each count date at Hovland Woods. See methods for details.

Common name	Census dates -1983									
	15 May		7 June		8 June		30 June		1 July	
	MB	SB	MB	SB	MB	SB	MB	SB	MB	SB
Broad-winged Hawk	-	1	-	-	-	-	-	-	-	-
American Kestrel	-	1	-	-	-	-	-	-	-	-
Ruffed Grouse	-	4	-	1	1	2	-	-	-	-
Common Snipe	-	1	-	1	-	-	-	1	-	1
American Woodcock	-	-	1	-	-	-	-	-	-	-
Chimney Swift	-	-	-	-	-	-	-	-	-	2
Belted Kingfisher	-	-	-	-	-	1	-	-	-	-
Yellow-bellied Sapsucker	-	-	-	1	-	2	-	1	-	1
Downy Woodpecker	-	2	1	-	-	1	-	-	-	1
Hairy Woodpecker	-	-	-	1	-	-	-	-	-	1
Northern Flicker	-	-	1	1	-	-	-	-	-	1
Pileated Woodpecker	-	2	-	3	-	-	-	-	-	1
Olive-sided Flycatcher	-	-	-	-	-	-	-	1	-	2
Yellow-bellied Flycatcher	-	-	2	7	1	4	-	-	1	6
Alder Flycatcher	-	-	1	1	-	1	-	2	-	2
Least Flycatcher	1	-	-	-	-	2	-	3	-	1
Gray Jay	-	-	-	-	2	-	-	-	-	-
Blue Jay	-	1	-	2	-	4	-	2	-	-
Red-breasted Nuthatch	-	-	2	-	-	1	-	2	-	3
Winter Wren	1	3	-	4	-	2	-	2	-	7
Golden-crowned Kinglet	4	3	1	2	5	1	2	3	3	1
Ruby-crowned Kinglet	-	1	-	2	-	1	-	-	-	-
Veery	-	-	1	2	-	2	-	5	2	2
Swainson's Thrush	-	-	-	2	-	1	-	4	1	4
American Robin	-	2	-	1	-	1	-	2	-	2
Cedar Waxwing	-	2	-	-	-	-	-	-	2	2
Solitary Vireo	-	-	1	1	-	-	-	2	1	1
Red-eyed Vireo	-	-	-	2	-	2	-	2	1	2
Nashville Warbler	-	-	2	7	3	3	2	4	1	1
Northern Parula	-	-	2	3	-	2	-	5	1	1
Chestnut-sided Warbler	-	-	5	3	4	5	2	4	-	7
Magnolia Warbler	-	-	2	-	3	1	-	2	2	-
Yellow-rumped Warbler	2	1	1	1	-	-	-	2	-	-
Black-throated Green Warbler	-	1	1	3	3	3	-	-	-	4
Blackburnian Warbler	1	-	3	1	2	-	-	2	3	2
Black-and-white Warbler	1	-	2	1	2	-	-	3	2	-
American Redstart	-	-	-	1	4	-	1	5	1	5
Ovenbird	-	1	1	3	1	5	-	4	1	7
Northern Waterthrush	-	-	-	1	-	-	-	-	-	-
Mourning Warbler	-	-	2	1	-	-	-	1	-	2

Common Yellowthroat	-	-	1	-	-	-	-	3	1	3
Canada Warbler	-	-	-	-	1	-	-	-	-	-
Scarlet Tanager	-	-	-	1	-	-	-	-	-	-
Rose-breasted Grosbeak	-	-	1	2	-	-	-	-	-	-
Song Sparrow	-	-	1	-	-	1	-	-	-	1
Swamp Sparrow	-	-	-	1	-	1	-	2	-	-
White-throated Sparrow	4	2	-	7	3	4	1	3	2	8
Dark-eyed Junco	-	-	-	1	-	-	-	2	1	1
Purple Finch	-	1	-	-	1	1	-	-	-	-
American Goldfinch	-	1	2	-	-	-	-	-	-	2
Total Individuals	14	30	37	71	36	54	8	74	26	96
Total Species	7	8	23	33	15	26	5	28	17	33

as ponds, it was possible to walk through the area using a compass line.

My rationale for this approach is based on the idea that each transect count (or subdivisions of each transect, such as a 500 m section of transect) represents a sample of the bird community at Hovland Woods. These samples can then be compared with similar samples gathered in subsequent years at Hovland Woods or with samples gathered from other places. Ideally, transect lines should be measured so that the area censused and census times can be controlled. However, measuring transects takes time, so with limited monies the types of transects used here are a reasonable substitute. Because time spent censusing and the area actually sampled can vary from one transect count to another, these two factors need to be accounted for in the presentation of results.

It is well-known that the greater the area censused and the longer the time spent in the field, the more individuals and more species one is likely to find on a given day. To make approximate comparisons between census days, I standardized the efforts to account for potential differences in the area censused or time spent censusing (James and Rathbun

Table 2. Summary of the standardization of each transect count for number of species and number of individuals observed at Hovland Woods during the summer of 1983.

	Census day				
Information	15 May	7 June	8 June	30 June	1 July
Census time (hrs)	3.0	3.0	3.0	2.8	3.5
Distance (km)	3.4	3.25	3.0	3.0	3.0
Number of species observed	21.0	40.0	31.0	28.0	35.0
Number of individuals observed	44.0	108.0	90.0	82.0	122.0
Number of individuals per 3 km	38.7	99.6	90.0	82.0	122.0
Number of individuals per 3 km and 3 hrs	38.7	99.6	90.0	89.4	104.6
Expected species in 3 km and 3 hr effort	19.8	38.7	31.0	28.8	33.9

1981). It is relatively easy to standardize the number of individuals observed. For example, to standardize to area, I simply divided by the length of the transect censused on a given day, and to standardize to effort I divided by the number of individuals observed in 3 km by the hours spent censusing. I then multiplied this value by 3 to get a standardized number of individuals observed in a 3 km - 3 hour effort. However, standardization of the number of species observed cannot be completed in the same way because species are not observed at the same rate or proportions as individuals are. Fortunately, ecologists have developed a mathematical function called "rarefaction" (Simberloff 1972) to estimate the number of species that would have been observed for a subset of the number of individuals observed. To calculate this function one only needs to know the number of individuals observed for the various species in the sample. I used this distribution of the number of individuals for the species observed to estimate the number of species that would be expected for the number of individuals observed in a 3 km - 3 hour effort.

Results

A total of 446 individuals of 50 species was identified in the Hovland Woods area during the five census days (Table 1). With the possible exceptions of the Broad-winged Hawk, American Kestrel, Chimney Swift, Belted Kingfisher, and Cedar Waxwing, it is likely that the remaining 45 species were nesting at Hovland Woods. Five species each comprised more than 5% of the total number of observations or collectively about 32% of the total number observed. These species included the White-throated Sparrow (7.6%), Nashville Warbler (7.2%), Chestnut-sided Warbler (6.7%), Golden-crowned Kinglet (5.6%), and Ovenbird (5.2%). All of these species were classified as abundant breeding residents throughout the Superior National Forest by Green and Niemi (1978), except the Golden-crowned Kinglet that was classified as fairly common. The abundance of the Golden-crowned Kinglet and the lesser abundance of several other species that are normally abundant in northeastern Minnesota such as the Veery and Red-eyed Vireo, is probably a reflection of the relatively high density of coniferous trees, especially the lowland coniferous vegetation such as white cedar. Species that were relatively typical of this lowland coniferous habitat included the Yellow-bellied Flycatcher, Gray Jay, Ruby-crowned Kinglet, Swainson's Thrush, and Northern Parula.

Of the five census days, the greatest number of species was observed on 7 June and the fewest species on 15 May, while the most individuals were observed on 1 July (Table 2). These data indicate that the number of species and the number of individuals observed from one day to the next can vary considerably. For example, on 7 June, 40 species (38.7 species per 3 km - 3 hr effort; see Table 2) were observed, but on the next day only 31 species were observed. This represents a difference of 20% in the number of species observed between these two days.

Of considerable interest in the collection of inventory data such as this concerns the question of how many censuses are required to obtain a reliable assessment of the birds found in an area of interest. If we assume that the cumulative total of 50 species observed on all 5 censuses represents the number of species in the Hovland Woods area during the 1983 nesting season, then we can examine how combinations of a lesser number of censuses (say 1 to 3 census days) could estimate this number of species. One-day censuses would have recorded a low of 42% of the species on 15 May to a high of 80% of the species on 7 June. However, it is worthwhile to also note that the census on 8 June recorded only 62% of the species. Combinations of two-day censuses revealed a range from 76% of the species (4 combinations: 15 May and 8 June, 15 May and 30 June, 8 and 30 June, and 30 June and 1 July) and up to 90% of the species observed on two combinations (15 May and 7 June, and 7 and 8 June). Combinations of three-day censuses all recorded more than 85% of the species, with two combinations producing 96% of the species (15 May, 7, 8 June; and 7, 8 June and 1 July).

Discussion

In general, the bird community of Hovland Woods represents a diverse group of species. The community is not dominated by a few species, which is often the case in many communities where one to three species will represent more than 50% of the total number of

individuals observed in an area. At Hovland Woods even the five most common species comprised only 32% of the total number of individuals. This is probably due to the diverse character of the vegetation found in the area. There is considerable relief at Hovland Woods which creates a diverse array of conditions for different vegetational forms to grow in a relatively small area. Therefore, habitat conditions are also suitable for a wide array of species. Despite the heterogenous character of the vegetation and the avifauna of this area, the plant and animal communities are relatively typical of northeastern Minnesota. Although it is often difficult to quantitatively describe characteristics that define the "uniqueness" of an area, Hovland Woods represents an interesting and diverse biological area but not necessarily a unique or "one-of-a-kind" area. Generally, an area that possesses qualities of ornithological interest should have: (1) relatively high population densities of a species or several species, (2) a relatively high diversity of species, or (3) the presence of rare species such as those that are endangered or threatened (Fuller 1980).

If time is limited to census an area (e.g., a single 3-4 hour visit during the breeding season), then one must be cognizant that a relatively small proportion of the species may be sighted on a single visit. As few as 42% of the potential breeding species were observed on 15 May and only 56% on 30 June. As many as 80% of the species were observed on 7 June, but on the next day this percentage dropped to 62%. There are some obvious reasons for these differences, including the following: (1) different areas were censused each day so a different portion of the bird community was sampled, and (2) censuses during different times of the nesting season produced differential responses from the bird community. For example, we may have sampled more productive habitats on 7 June than on 8 June, or on 15 May many of the potential breeding species (e.g., flycatchers) had not yet arrived in the area. Other reasons for these differences include changes in nesting activity of different species (Diehl 1981), subtle differences in weather conditions on the census days (Robbins 1981), and slight differences in census times (Skirven 1981). Other investigators have noted similar patterns of variation for the detectability of birds during the breeding season (Järvinen and Väisänen 1981). Censuses can be restricted to days with suitable weather conditions and censuses can be restricted to the early morning hours when song activity is optimal, as was done in this study. However, more than one census and a dispersion of census days are necessary to record the diverse assemblage of bird species that are potentially nesting in an area, all of which are in various phases of their nesting cycle.

Summary

Data were gathered on breeding bird populations at Hovland Woods in northeastern Minnesota during five line-transect censuses spanning a period from 15 May to 1 July 1983. A total of 446 individuals of 50 species were identified, and it is suspected that 45 of the species were nesting at Hovland Woods. The five most common breeding species were the White-throated Sparrow, Nashville Warbler, Chestnut-sided Warbler, Golden-crowned Kinglet, and Ovenbird. A range of 42% (on 15 May) to 80% (on 7 June) of the cumulative number of species was observed on one-day censuses, and four-day censuses were required to identify 96% or more of the total number of species observed. Hovland Woods is a vegetationally heterogenous biological area that supports a diverse group of bird species.

The census methods used provide a convenient and economical means for gathering quantitative data on breeding bird communities. Each transect or subdivision of a transect can be considered a sample of the bird community for an area. These data can then be used for making comparisons over time and space as long as area censused and time spent censusing are taken into account.

Acknowledgments

I would like to thank the Minnesota Chapter of the Nature Conservatory for funding the inventory at Hovland Woods and JoAnn M. Hanowski for her expert assistance in bird censusing.

Literature Cited

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1977. Classification of wetlands and deep-water habitats of the

United States. U.S. Fish and Wildlife Service.
Diehl, B. 1981. Bird populations consist of individuals differing in many respects. Studies in Avian Biology 6:225-229.
Emlen, J.T. 1971. Population densities of birds derived from transect counts. Auk 88:323-342.
Green, J.C. and G.J. Niemi. 1978. Birds of the Superior National Forest. USDA Forest Service, 82 pp.
Fuller, R.J. 1980. A method for assessing the ornithological interest of sites for conservation. Biol. Conserv. 15:229-239.
James, F.C. and S. Rathbun. 1981. Rarefaction, relative abundance, and diversity of avian communities. Auk 98:785-800.
Järvinen, O. and R. Väisänen. 1975. Estimating relative densities of breeding birds by the line transect method. Oikos 26:316-322.
Järvinen, O. and R. Väisänen. 1981. Methodology for censusing land bird faunas in large regions. Studies in Avian Biology 6:146-151.
Kuchler, A.W. 1964. Potential natural vegetation of the conterminous United States. American Geographical Society. New York.
Robbins, C. 1981. Bird activity levels related to weather. Studies in Avian Biology 6:301-310.
Simberloff, D.S. 1972. Properties of the rarefaction diversity measurement. American Naturalist 106:414-418.
Skirven, A.A. 1981. Effect of time of day and time of season on the number of observations and density estimates of breeding birds. Studies in Avian Biology 6:271-274.

Natural Resources Research Institute, University of Minnesota, Duluth, 3151 Miller Trunk Highway, Duluth, MN 55811.

A Documented Invasion of Gray Jays in Duluth, Fall 1986

Kim R. Eckert

Although previous fall-winter incursions of Gray Jays in Minnesota have been mentioned in the literature, the numerical scope of these apparently has never been documented. Roberts' **The Birds of Minnesota** mentions one invasion, that in the fall and winter of 1929-30, when "a considerable number wandered south" during the fall, with individuals "reported from many places" in the Twin Cities area throughout the winter. **Minnesota Birds** by Green and Janssen states the following: "Irregular fall eruptions are most noticeable along the shore of Lake Superior in St. Louis County; the movements begin in mid-September, peak in October, and end in late November." Seasonal reports in ***The Loon*** and ***The Flicker*** were checked back as far as 1961 (when comprehensive seasonal reports were initiated by Ron Huber), and two invasions were noted. During fall-winter 1965-66, a "southerly movement" was "strong during October and November", with records as far south as Stillwater in November and St. Paul in January. Then in 1976-77 there was a "major invasion year," with jays first appearing in southern Minnesota in mid-October, several individuals in the Twin Cities ultimately turned up, and one was recorded as far south as Olmsted County.

Because none of these invasions have been described in greater detail, is it not possible to say which year witnessed the largest Gray Jay incursion. However, there clearly was a major invasion in Duluth and vicinity during the fall of 1986, and, whether or not it was the largest ever, it is apparent that for the first time ever the numbers involved in a Gray Jay invasion have been monitored. In all, no fewer than 470 individuals were counted within the city limits of Duluth and along the North Shore as far as the Lake County line; the Gray Jays seen farther up the Shore from Knife River and beyond and those reported north and west of the city limits were not included in this total. (It was decided to

monitor numbers in the smaller area described since coverage by birders between Duluth and Stoney Point is frequent and relatively complete; certainly the Gray Jay movement occurred over a larger area, especially along the North Shore in Lake and Cook Counties, but birder coverage was minimal so that counts there would be less meaningful.)

The beginning of the flight became evident during the weekend of Sept. 13-14 when the first few individuals appeared in Duluth. When several more individuals arrived during the following week, it was decided to alert local birders to keep track of all Gray Jays seen. There was no systematic, daily census maintained during the season, although there were a few days when birders set out to look specifically for Gray Jays. As best as can be determined, 470 represents the number of different individuals (with presumed duplicate sightings discounted.) Therefore, jays were only counted when seen moving down the North Shore or past some other vantage point (e.g., Hawk Ridge), or when seen at a new location (an individual returning to a feeder, for example, was only counted once). While a few jays may have been counted twice, this number may be negligible compared to the number of jays which passed through undetected. The flight was considered to be over Oct. 25, the last day migrants were noted moving down the Shore. Gray Jays continued to be seen after that date but these birds were mostly at feeders and did not appear to be on the move.

Following is a list of all individuals arranged chronologically, including their locations: North Shore = the 12-mile stretch between the mouth of the Lester River and the Lake Co. line (including Stoney Point); Central = between 40th Ave. E. and downtown, including UMD and vicinity; West = anything west or southwest of downtown. The dates are separated into five-day sections to illustrate the progression of the invasion.

September	13-18	9	individuals	various locations
September	21	9	individuals	mouth of French River (North Shore)
"	22	14	"	North Shore (12 of these at Stoney Pt.)
"	23	12	"	North Shore (10), Hawk Ridge (2)
"	24	60	"	North Shore (during 3 hours)
"	25	6	"	North Shore (5), Central (1)
		101	5-day total	
September	27	1	individuals	West (40th Ave. W. Erie Pier area)
"	28	25	"	various locations (23 of these North Shore)
"	29	7	"	various locations (5 of these North Shore)
"	30	27	"	various locations (24 of these North Shore)
late September		6	"	various locations
		66	5-day total	
October	1	110	individuals	North Shore (103 of these in 2½ hours)
"	2	8	"	North Shore
"	3	6	"	Central and West
"	4	30	"	North Shore
"	5	35	"	North Shore (34), Central (1)
early October		4	"	West (3), Hawk Ridge (1)
		193	5-day total	
October	6	18	individuals	North Shore
"	7	1	"	Hawk Ridge
"	8	18	"	North Shore (17), Hawk Ridge (1)
"	9	4	"	various locations
		41	5-day total	

October	11	3	individuals	North Shore
"	12	2	"	Hawk Ridge and ParkPoint
"	13	8	"	North Shore
"	14	4	"	North Shore
"	15	12	"	North Shore
		29— 5-day total		
October	17	8	individuals	North Shore (7), Hawk Ridge (1)
"	18	7	"	North Shore (6), Hawk Ridge (1)
"	20	1	"	Hawk Ridge
		16— 5-day total		
October	21	3	individuals	North Shore (2), Hawk Ridge (1)
"	23	4	"	Stoney Point
"	25	8	"	North Shore
		15— 5-day total		

As the figures above show, the vast majority of the Gray Jays were counted along the North Shore between the Lester River and the Lake County line; less than 10% of the total was seen elsewhere. This is to be expected since most of the coverage was along the North Shore. It is unclear where the jays went once they reached the residential areas from the Lester River west. No one witnessed any significant movement through Lakeside (the area between the Lester R. and 40th Ave. E., below Hawk Ridge), but a few individuals were seen along the lake shore on the east side of downtown Duluth, a few others passed through Park Point, and surprisingly, at least one was at home in the treeless mudflats at Erie Pier.

The peak flight period could be considered the 15 days from Sept. 24 to Oct. 8 when 77% of the total was counted. However, note that there were a few days during this time when relatively few birds were seen, and that there was still a significant movement on days before and after this period. Although the two biggest counts, on Sept. 24 and Oct. 1, were limited to just a few morning hours, there were also days with steady movements in the afternoon, so that time of day apparently was not a factor. Neither did weather seem to be a factor in stimulating migration, as good flights occurred on days with normal or even above average temperatures, while cold fronts failed to trigger a movement.

The causes of this and other Gray Jay movements are not immediately clear. It is assumed that most invasions of northern birds are triggered by a shortage of food within their normal range; however, the Gray Jay is reportedly omnivorous, so that one would think this species could switch to alternate food sources if there were a shortage of something. A few roadkilled Gray Jays were found, not unexpected considering this species' relatively tame nature and slow flight. None appeared to die of starvation, and none appeared food-stressed. At feeders the jays predictably preferred suet, but many jays were also seen on lawns foraging for insects or worms in the manner of American Robins. The origin of these jays is also unclear, although it is assumed they came from northern Minnesota or nearby Ontario; no one, at least, noted any individuals which were not of the local race **canadensis**.

It is also interesting to note that the Boreal Chickadee, another resident of northern coniferous forests, also staged a significant movement this fall. Although Duluth birders did not monitor numbers on the same scale as was done for the Gray Jay, the numbers involved in this invasion were clearly greater than in any fall since at least 1977. Good numbers were first noticed moving down the North Shore (again, primarily between the Lester River and Stoney Point) starting in late September; by early November the movement seemed to be over. A few counts of this species were made: most notable were the 40 individuals counted during two hours between the Lester River and Stoney Point Oct. 8, with 22 of these seen in a single flock; 23 chickadees were also counted in this same area Oct. 11, and on Oct. 15 a total of 18 was noted. This may have been the only fall

on record when both Boreal Chickadees and Gray Jays staged invasions. A check of back issues of **The Loon** to 1961 turned up mention of Boreal Chickadee incursions in the fall-winter seasons of 1966-67 and 1972-73, but no source mentioned chickadee invasions during the three seasons of Gray Jay eruptions mentioned earlier.

At the time of this writing (December 1), it is obvious that Gray Jays (and Boreal Chickadees) are appearing in greater numbers than normal in central and sourthern Minnesota; perhaps this related phenomenon will be the subject of another article in the near future.

I would like to acknowledge the many birders who helped keep track of Gray Jays this fall, especially Parker Backstrom, Mike Hendrickson, Don Kienholz and Mark Stensaas.
9735 North Shore Drive, Duluth, MN 55804.

BOOK REVIEW

DISTRIBUTIONAL CHECKLIST OF NORTH AMERICAN BIRDS (Volume I: United States and Canada) by David DeSante and Peter Pyle; Artemisia Press, P.O. Box 119, Lee Vining, CA 93541; 1986; 51 black-and-white drawings by Tony Bennett, Jr. and Keith Hansen, 442 pages; $30 postpaid.

Some recent Minnesota first state records include the likes of Common Black-headed Gull and Sandwich Tern — which of these was long overdue and which was totally unexpected? Conversely, we still lack state records for species like Brown Pelican, White Ibis, Wood Stork, Black Vulture, Black-necked Stilt, Curlew Sandpiper and Golden-crowned Sparrow — how hard should we be looking for them or would we be wasting our time? And what about that Great-tailed Grackle you thought you saw in northwestern Missouri last year — was this more or less expected or were you imagining things?

Now, thanks to **Distributional Checklist**, there are easily found answers to these and other similar questions regarding the state-by-state status of North American birds. Most states and Canadian provinces have published their own checklists or books on local bird distribution, but some places never have. While those existing official state/provincial lists are almost all dated by at least a few years, some use status definitions inconsistent with other lists, and many are either unknown to birders in general or difficult to find. But for the first time ever, there is a unique and valuable resource which presents an up-to-date, convenient and consistent state-by-state distributional list of all North American birds.

Nearly 1000 species are included, as are all 50 states, District of Columbia and the 12 provinces/territories of Canada. Records through February of 1985 are incorporated into the main text, while an appendix adds many first state records up to 1986; the authors also promise future updates at ten year intervals. The species are listed down the left side of the pages (from 15 to 25 species fit per page), while the states and provinces are arranged across the top so that it takes seven pages to include all the areas for each group of species. These seven-page sections are separated by divider pages with black-and-white drawings. Therefore, a typical page consists of a grid of blocks which includes season and abundance data for each species

in each area; if there is no state/provincial record, that block is empty. So, to find the status of, say, Sandwich Tern in each place, turn to pages 157-163, scan across the Sandwich Tern line in these pages, and you'll find it listed from only one "inland" location (Ontario; therefore, Minnesota's 1986 record was highly significant). Or to see which Icterids have been seen in Missouri, for example, on page 353 you'll discover Great-tailed Grackles included as rare but regular permanent resident in the Missouri column.

To be sure, all this mass of data was the result of a vast amount of research by the authors, and certainly their most valuable sources were their contacts in each state and province who provided and reviewed the status for the species of their locations. After scanning this list of contributors, I have the utmost faith in the accuracy of virtually all the status information. Certainly a few errors are inevitable, and I may disagree with the entries under Minnesota for Trumpeter Swan and Common Black-Hawk, but such problems are certainly held to a minimum, thanks to the appropriate choices of each state's/province's authorities. About the only questions I have on this is why Alan Wormington was not one of the Ontario contacts, and why Bob Stewart would not have been a better North Dakota choice than Craig Faanes (Craig only lived in the state for a few years and is no longer a resident; also Hal Kantrud, the other state contact, has his name misspelled).

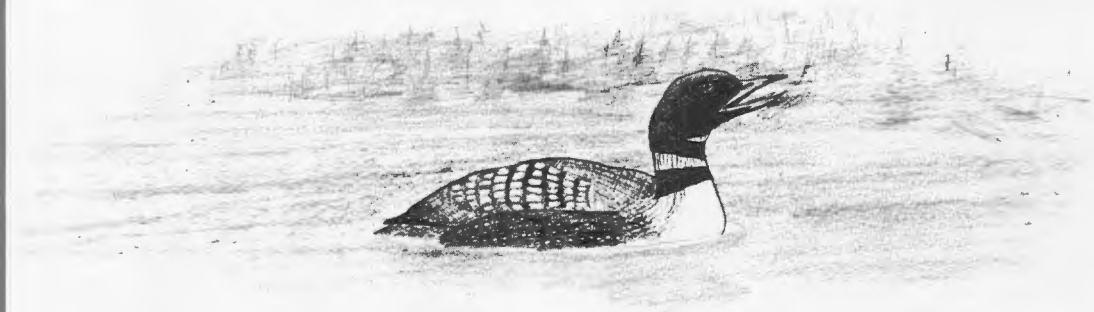
Just as reasonable persons can disagree over the local authorities selected, so also are there other valid viewpoints on other aspects of **Distributional Checklist** — it is impossible to agree with all the authors' decisions in a work this large and complex. Many, for example, would not have included Hawaii; not only does this state's avifauna have little in common with the rest of the U.S. and Canada (the A.B.A. Checklist properly omits Hawaii for lack of interest), but there are too many species found there and no where else, so that there are several wasted pages with too many empty spaces for too many states. Another controversial decision was to separate introduced species into a separate section — a not unexpected choice considering DeSante's and other California birders' prejudice against introduced birds. A better system might have been to simply note such introduced birds with a letter code in the same way that other aspects of a species' status in a state are indicated, and include them in the main part of the book.

Many readers, including myself, will also find the system used to indicate status too complex. No fewer than 23 different symbols, mostly letters, are used to show season, breeding, abundance and other information. As a result, a bird's status in an area may be indicated in complete but too complicated terms: e.g., the box for Roseate Spoonbill under Continental North America reads "lfP,lirS*,rV,xW". But whether short and sweet or meticulously intricate, these status codes are the most important feature of the book; yet they are set in the smallest possible type and occupy only a quarter of each box — the rest of the space is designed for the reader-lister to check the bird off when seen in a state/province. But this is a hardcover 400+ page home reference, not a back pocket field checklist for "ticks", and it is a mistake for this book to try to be both. (Perhaps if Hawaii had been excluded, if introduced birds hadn't been segregated, and with more species and states, and less white space per page, a smaller page size and soft cover, then a handier and less costly checklist might have resulted.)

Lastly, since art is so subjective, there is a lot of room for debate about Hansen's and Bennett's drawings. Bennett's efforts consist of thick lines and dark backgrounds, and his simple, straightforward style seems limited in creativity. Hansen's lighter touch is easier to take, and he has more of an imaginative flair. Although his golden-plovers superimposed over the Earth does not appeal to me, and his Whip-poor-will is one of the ugliest bird pictures I ever saw, three of his efforts — looking down on a Red-shouldered Hawk looking down on a river, a Black Rail family under a full moon (complete with a tripping chick), and a fanciful view of a Marbled Murrelet family in the nest (high in a pine in the mountains, of course) — are very appealing. And his drawing of the Prairie Falcon is simply one of the best bird pictures I've ever seen — the entire background effectively enhances the falcon's speed, and the Sage Grouse below practically disappear into the surrounding sage brush.

To say that **Distributional Checklist** is a monumental, unique and invaluable bird book is no exaggeration. Perhaps neither I

or anyone else will ever completely agree with the authors on all aspects of the book, however it is certainly something which belongs in the library of every birder who cares about North American bird distribution, or who wants to know the status of the species he sees in other states, or who wonders about what species his home state can be most proud of having on its checklist (e.g., Sandwich Tern), and which are conspicuous by their absence (see paragraph one).—**Kim Eckert.**



NOTES OF INTEREST

SOME UNUSUAL FALL DATES FROM DULUTH AND VICINITY — When Duluth birders think back on Fall, 1986, perhaps the first birds that come to mind will include the possible Mississippi Kite over Cathedral High School, the great Gray Jay invasion, the Rock Wren on the old UMD campus, Duluth's second Blue-gray Gnatcatcher record, a Lazuli Bunting at Stoney Point, and that McCown's Longspur at the 40th Ave. W., Erie Pier area. However, just as significant as these rarities is the long list of species found during this season which were unusually late (there was also one record early date). According to records provided by Bob Janssen which update those early and late dates published in **Minnesota Birds**, Duluth and the North Shore recorded no fewer than four record late dates for Minnesota plus another date which tied the latest; there were also four dates which were the second latest ever in the state, and five third latest dates. These records are listed below:

Red-shouldered Hawk — An adult passed low over the Hawk Ridge banding station Nov. 10; the third latest date for northern Minnesota (the species winters in southern Minn.), with previous records from Nov. 25 and 12; this species is also only casual in Duluth.

Semipalmated Plover — Last seen Oct. 19 at 40th Ave. W.; second latest date ever, with Nov. 1 the latest.

Whimbrel — One was present at Park Point Sept. 4-27; second latest date, with Oct. 18 the latest; another individual was also in Duluth along the North Shore Sept. 13-23 — this species is only casual in Minnesota in fall.

White-rumped Sandpiper — Normally this species is only casual/very rare in fall, but this season there were several seen in Duluth and along the North Shore; the latest was seen by Don Kienholz at 40th Ave. W. Nov. 5, the latest ever in the state (previous latest Nov. 4); there was another individual Nov. 1 at the Spruce Creek ponds in Cascade River State Park, Cook Co., which is now the third latest date.

Buff-breasted Sandpiper — One found at 40th Ave. W. by Don Kienholz Oct. 1 ties the third latest date; previous records from Oct. 22 and 18.

Short-billed Dowitcher — A juvenile was present until Oct. 9 at 40th Ave. W., a record late date for the state (previous latest Sept. 25); call note and pattern of the tertial feathers

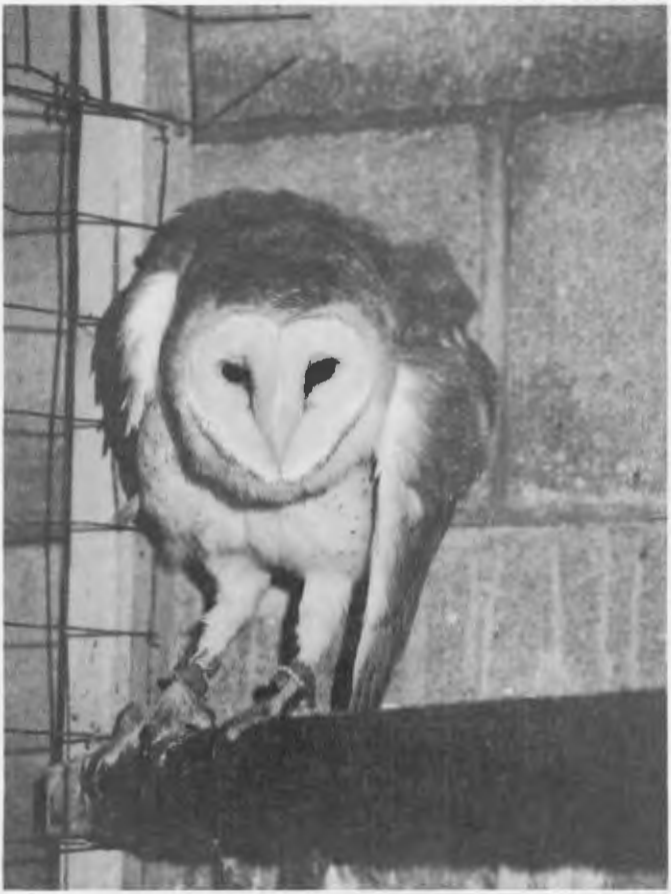
both eliminated Long-billed Dowitcher, certainly the more likely dowitcher in October.
Western Kingbird — Most surprising was the individual still surviving Nov. 2-3 in Cook Co. near Kodonce River State Park, in spite of sub-freezing temperatures Nov. 1-3; the latest date for the state by several days, with October 18 the previous latest (and that date is exceptional enough since the next latest is Sept. 28); this species is also casual/accidental along the North Shore, and because of this and the unusual date, the bird was carefully studied to make sure it wasn't something more unusual, like a Cassin's or Tropical Kingbird — the white outer rectrices, however, confirmed its identity as a Western.
Philadelphia Vireo — One at Stoney Point Oct. 14 is now the third latest date, with previous records from Oct. 29 and 18. This was a brightly marked individual, studied carefully at close range to preclude the more likely Tennessee and Orange-crowned Warblers; the black lores, extensive yellow underparts and thick, hooked bill were all seen.
Bay-breasted Warbler — One at Stoney Point Oct. 25 ties the latest date ever; the traces of buff on the sides of this individual were easily seen and precluded the similar Blackpoll and Pine Warblers.
Blackpoll Warbler — One at Grand Marais Oct. 24 represents the second latest date on record, with Oct. 25 the latest ever. The more likely Pine Warbler was eliminated by the presence of streaking on the back, and the streaking on the underparts and the strong yellow wash on the breast precluded Bay-breasted.
Dickcissel — Quite unexpected was the one at my feeder Oct. 21-23, the latest date ever in the state by several days (previous latest Oct. 4 and 3). Normally this species departs southern Minnesota in August. Another individual with different plumage features also appeared at Janet Green's feeder Sept. 29 which tied the third latest record; this species is only accidental in northeastern Minnesota.
Lark Bunting — A female at Jeff Newman's feeder in Duluth Oct. 28-29 ties the second latest date (previous record from Nov. 9). This species, which is only casual/accidental in northeastern Minnesota, was also seen Oct. 19 at Grand Marais by the Hoffmans.
Bohemian Waxwing — Finally, although not a late date, it is appropriate to include here the record early individual netted at the Hawk Ridge banding station by Denny Meyer Sept. 30. The previous earliest date was Oct. 4. **Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804.**

A LATE DATE FOR EASTERN PHOEBE — At 10:00 A.M. on November 30, 1986 I observed an Eastern Phoebe on the Mississippi River (East River Flats Park) at the University of Minnesota, Hennepin County. The bird was seen on a low branch of a deciduous tree about 20 - 30 feet from the river. It was looking from side to side, probably looking for insects. At the same time it was wagging its tail. I noted the typical field marks of an Eastern Phoebe: dark gray/black head and upperparts contrasting with the light underparts, no wing bars. No insects were seen in the area but I did notice that there are several large, ten feet in diameter, culvert outlets in the area, some with running water, which are a part of the Minneapolis storm sewer system. This may create a micro-climate favorable to an Eastern Phoebe at this late date. On December 1 I searched for the bird but could not find it. **Dorothy Jeffries, 615 Ontario St. N.E., Apt. 13, Minneapolis, MN 55414.**

Editor's Note: This is the latest fall date on record for an Eastern Phoebe, the previous late date for the state is November 13.

COMMON BARN-OWL SIGHTING IN POLK COUNTY — The Common Barn-Owl is at the northern edge of its range in Minnesota. The species is a casual visitant in the southern half of the state, and accidental elsewhere. There have been only two records since 1965 (**Minnesota Birds**, Green and Janssen). On August 20, 1986, I received an injured Common Barn-Owl from conservation Officer Al Hanson of Crookston. The adult owl had become entangled in a swather while a farmer was swathing grain. The location was T151N

R48W NW Section 5 in Polk County, seven miles east of Grand Forks. The bird was sent to the Raptor Research and Rehabilitation Program in St. Paul. Examination and radiographs revealed that the bird's right wing was fractured just below the wrist joint (metacarpal/phalanx). The end of the wing was dead by this time and no fixation could be attempted. The end of the owl's wing was amputated and recovery went well. We are planning to send the bird to an owl breeding program in Canada run by Katherine McKeever. The presence of an adult owl in Minnesota during the summer is an unusual occurence. It raises the possibility of a breeding pair in this area and we hope that birders will be on the lookout for any signs of Common Barn-Owls this coming season. Any sightings can be reported to the MNDNR nongame program and would be appreciated. **Katherine V. Haws, Nongame Specialist, Dept. of Natural Resources, 2115 Birchmont Beach Rd. N.E., Bemidji, MN 56601. Mark S. Martell, Raptor Research and Rehabilitation Program, University of Minnesota, St. Paul, MN 55108.**



Common Barn-Owl taken in Polk County and photographed at the Raptor Rehabilitation Center, University of Minnesota, St. Paul, MN. Photo by Mark Martell.

TUNDRA SWAN SUMMERS AT AGASSIZ NWR — Assistant Refuge Manager Ron Bell observed an adult plumaged swan in Tamarack Pool on 27 June 1986. Although the swan was only 15 m away, identifying characteristics were not noted at that time. I searched unsuccessfully for the bird the next day. On 29 August, Henry Kono reported seeing an adult swan 30 m away in Madsen Pool, approximately 4 miles south of the Tamarack Pool sighting. After a brief observation, the swan flew out across the pool. When asked if he noted yellow markings on the bill near the eyes, he said he had not, although he was not familiar with swan characteristics. I observed the swan in Madsen Pool at 3:00 p.m. on 8 September at a distance of 300 m using a 15-60X spotting scope. The sky was partly cloudy and the bird was partially back-lighted. The bird fed continually by tipping, affording only brief glimpses of its head and posture between tippings. The legs and neck were clearly seen and were not banded. On this day I could see only the right profile and tentatively concluded the bird was a Trumpeter Swan based on the absence of yellow on the bill near the eye, the large canvasback-shaped bill and the hint of a red line at the base of the lower mandible (rarely present on Tundra Swan). The facial skin tapered to the eye making the eye appear somewhat separate from the bill, a characteristic sometimes, but not always, associated with Tundra Swan. The next day I observed the swan at 9:00 a.m. at the same location but approximately 50-75 m closer. Looking west, the left profile was visible on this day and I could see a faint, but distinct, light yellowish spot on the facial skin extending about 2 cm in front of the eye. The spot was not evident on the right side of the face. In this profile, I could not see the red on the lower mandible. Also, the feathers of the forehead seemed to form a more or less straight line between the eyes and not a point as in Trumpeter Swan. Neck posture characteristics could not be used to identify the swan because it fed continuously and never assumed an alert posture necessary for such a characteristic to be useful. Unfortunately, vocalizations were never heard. I concluded the swan was a Tundra based on the yellow bill marking (absent in some Tundra Swans), the shape of the forehead feathers, and the separation of the eye from the facial skin (not always accurate). The absence of neck and leg bands supported the evidence that the swan was not a member of the reintroduced Trumpeter Swan flock near the Twin Cities, although not all of this flock are banded. Based on this experience, it is obvious to me that great care must be made in identifying our two native swans, partaicularly lone individuals. This represents the first summer record of Tundra Swan at Agassiz NWR. **Jim Mattsson, Agassiz NWR, Middle River, MN 56737.**

TRICOLORED HERON SUMMERS AT AGASSIZ NWR — On 24 June 1986, I observed an adult Tricolored Heron (*Egretta tricolor*) in the extreme northwest corner of Agassiz Pool, Agassiz National Wildlife Refuge. The heron flushed 125 m away from a shallow, cattail-sedge marsh with a group of 15 Great Egrets (*Casmerodius albus*), circled the area for about one minute, and landed. The bird was smaller than the egrets and appeared dark above and white on the belly in flight. With 7X binoculars, I easily could see white on the throat and ventral surface of the neck. White plumes on the head were evident against a dark background of trees. The lower back and rump feathers were light brown and contrasted sharply with the dark blue upper back and dorsal wing surfaces. The proximal one-half of the bill was light compared to the darker distal portion. The heron was seen at least six more times, always in the same location, and was last seen on 24 August. On that date the plumage was dull, the buffy brown rump and back feathers were barely evident. It is interesting to note that the first record of Tricolored Heron was at Agassiz NWR in 1963. The species has since been recorded several times elsewhere in Minnesota and currently is considered to be casual in the state. **Jim Mattsson, Agassiz NWR, Middle River, MN 56737.**

SCOTER OBSERVATIONS FROM CLAY COUNTY, MINNESOTA — No official scoter records exist for Clay County, Minnesota (R. Janssen, pers. comm.). This note documents the occurrence of White-winged Scoters and Black Scoters in Clay County.

On 27 October 1984, we collected a single immature female White-winged Scoter as it

landed in our decoys at Doran Lake (46°50′N, 96°17′W), about 6 miles south of Hawley, Minnesota. The bird was collected mid-morning, a few hours before a cold front moved in from the northwest at 1300. The specimen was not saved.

On 1 November 1985, we collected an immature female Black Scoter at Doran Lake. The bird was at the rear of a large flock of Lesser Scaup. That flock had been feeding on the lake and was kicked up by gun fire. The scoter trailed the rear of the scaup flock by over 5 m, indicating that it was probably the only scoter present. The bird was donated to Iowa State University (Accession #2388). **Michael R. North and Gregory A. Hiemenz, Zoology Department, North Dakota State University, Fargo, ND 58105.**

HARLEQUIN DUCK IN AUSTIN — On November 17, 1986, while driving on East Oakland Avenue in Austin, Mower County, we saw Canada Geese along the bank of the Cedar River. Rose suggested we drive to the municipal campground loop to get a closer look. She noted at this time a small dark duck with a pair of Mallards in Dobbins Creek, which joins the river in the park. The duck went around a bend before we could be certain of its identity. We were afraid it would take flight if disturbed, so we went home for a scope to check it out at longer range. We found it again and we were able to identify it as a female Harlequin Duck. We later found it to be as unconcerned about people as the local Mallards with which it associated. It was easily seen for six days and then it seemed to disappear most of the time. December 16th it began showing up regularly about ¼ mile downstream from where it was first seen. It had a high rounded head, black wings and black tail. The sides and upper tail coverts were gray-brown. The breast was a mottled gray and the belly was light colored. The mandible was dark with the upper tip having a lighter spot. The legs and toes were gray and the webbing was black. There were dark lines across the toes. There was a prominent white spot in back of and below the eye. The lower face from the eye forward was a more subdued white. There was a dark streak in front of the eye which partially separated a triangular white patch above and in front of the eye from the white below. There was a dark strip that went from the bill forward over the top of the head. It would raise its wings before diving and occasionally start a short stroked flutter in the act of submerging. You could sometimes follow its dive, watching a trail of bubbles. The dives generally lasted about 10 seconds. Steve Carlson and I watched it for over an hour using his scope, sometimes as close as 20 feet, while getting a description. **Ron & Rose Kneeskern, 1208 5th St. N.W., Austin, MN 55912.**

PACIFIC LOONS IN RAMSEY COUNTY — A series of Pacific Loon observations were made on Lake Vadnais in Ramsey County from 9 to 23 October 1986. Although only one bird was usually seen, a pair was seen on 22-23 October. I originally found a strange loon on the morning of 9 October and misidentified it as a Red-throated Loon. When first spotted this bird was nearly ½ mile distant, and appeared only as a thin, somewhat palish loon in winter plumage. The grayish upperparts and white underparts were separated evenly, giving the bird a clean-cut appearance. These characters were substantiated when I moved to within about 50 yards of the bird and saw it with 20× in good light. It moved off with its bill held upward like a cormorant. I decided at the time that the lower mandible curved upward to meet the straight, horizontal upper mandible. I noted the gray color of the upperparts extending from the upper mandible, below the eye, and down the neck. No eye-ring was present. The back was dark, but with paler, widely spaced mottling. Based on these somewhat sketchy details, and with an over-reliance on the uptilted bill, I identified the bird as a Red-throated Loon. The bird had little resemblance to the scraggly-looking Pacific (formerly Arctic) Loons shown in the National Geographic Society's field guide, nor did it look like the dark, thick-necked Pacific Loon shown in the Audubon Society's master guide. Observations with other birders later in the afternoon of this date and on later days showed that this bird was in fact a Pacific Loon. Birders that saw the loon and helped me to correct the misidentification were Elaine and Ann McKenzie, Liz Campbell, Bob Janssen, Bob Haire,

Ray Glassel, and Terry Savaloja. These later observations were all presumably of the same bird because of its restriction to the west side of the lake, and behavior of diving repeatedly. The bird was decided to be a Pacific Loon because of the pale hindneck that contrasted with the darker lores and midneck. This mark was usually very inconspicuous, but showed up especially well when the bird was preening its breast feathers while facing away. The back was carefully noted to have a few vertical rows of pale scale marks, and separating it from winter Red-throateds which have more random, less scale-like spotting on their back. Lastly, the bill was structurally straight. The alert-looking, uptilted bill posture seemed to come when the bird was disturbed by an observer's close presence. The bill structure noted originally must have been an illusion caused by the loon holding its bill slightly upward while swimming away. On the morning of 10 October, in dark, overcast light, but with a 40× scope, Bob Haire, Elaine, and I observed a second Pacific Loon. This bird was more elegant and distinctive than the bird seen on 9 October. A dark triangle extending in a line up the midneck separated the white foreneck and pale hindneck. A slight bump on the forehead and the aching, curved posture to the hindneck gave the bill a stubby appearance. At the base of the neck a line of smudges extended from the base of the dark, triangular midneck onto the white foreneck. Although the chinstrap is illustrated and described as being at the top of the neck, a painting in "British Birds (Vol. 79, No. 8, p. 366)" shows a dark line at the base of the neck as it was in this bird (but please note that this excellent article on loon identification does not deal with Pacific Loons — it deals with the Black-throated Diver or Arctic Loon, formerly conspecific with Pacific Loon). I did not note a chinstrap at the top of the neck. This bird swam close by, within 50 yards, but then flew off and could not be found again. Although the first loon was not seen at the same time as this second one, it was seen later in the morning on the usual west side of the lake after the second bird had presumably left. On 22 October I saw a pair of Pacific Loons on the east side of the lake. Al Bolduc saw these two birds with me and Bob Haire called later to say he had seen them. On 23 October I spent the morning watching the loons. The light and the lake were clear, still, and brownish, making the birds appear a brown color that was remarkably different from the grayer color noted previously. The two of them did everything together — preening, diving, and even resurfacing. At one point, however, one of the Pacific Loons swam off with a Common Loon, leaving the other Pacific behind. Both Pacifics were seen in direct comparison with Commons, showing the latter's larger body size and much greater bill size, especially in proportion to the Pacific's. The Common's darker neck color, jagged separation between white foreneck and dark hindneck, and white area about the eye were all also obvious. The two Pacifics looked similar except one of them had a chinstrap at the top of the neck as well as a smudgy line extending across the breast at the base of the neck. Both of these birds had back scale-marks prominent at close range. These two birds were somewhere in-between the elegant appearance of the bird seen on the morning of 10 October, and the more plain one originally found on 9 October. One of the Pacific Loons was heard to call in a low, mourning wail, without the throatiness and drop in pitch that the Common Loon's "wail" (as distinguished from the Common Loon's other calls — the hoot, yodel and tremelo) usually has. These two loons are presumably the same two loons described previously on 9 and 10 October. Two last remarks. No white flank patch was ever observed on these Pacific Loons, but a Common Loon resting in the water showed such a mark. Also, I felt the diving technique was not consistently different between the Pacific and Common Loons; I saw Commons that leaped forward with a jerking motion and a craning of the neck when diving, and Pacifics that seemed to just slither under when diving. And finally, a hearty thanks to all the birders, especially Bob Janssen, who helped with these observations. **Karl Bardon, 11 Pheasant Lane, North Oaks, MN 55110.**

LATE BREWER'S BLACKBIRD AT DULUTH — The fall of 1986 witnessed a vast (and late) migration of mixed species of blackbirds at Duluth. The first flock arrived at my yard on Nov. 9. Snow, along with heavy gales, set the scene for their arrival. The weatherman reported that 8-16 inches of snow had fallen in the Dakotas, and up to 21 inches in Montana,

with high winds from the west. There were over 100 birds this first day, most of them being Rusty Blackbirds. In descending order were Red-wings, Brewer's and Common Grackles. The species mix and the number of birds varied each day after this. There were between 100-200 present each day. They survived several days of unseasonably cold weather, most notably the all-time record-breaking lows of -3 and -7 on Nov. 11 and 13. Most of them left by Nov. 25. This Brewer's was an adult male in breeding plumage. It was a lustrous black throughout. Its head distinctly showed a purple sheen, while the rest of its body had a greenish cast, which made it stand out boldly from the rest of the blackbirds. The last day it was seen was Jan. 10, 1987. **Jeff R. Newman, 4401 Regent St., Duluth, MN 55804.**

BOREAL OWL AT DULUTH — On Nov. 18, 1986, while walking a few blocks from home, I heard a large flock of vociferous chickadees apparently mobbing something since they could be heard in excess of 100 yards away. Anticipating either a hawk or an owl to be the recipient of their scolding, I hastened toward the clamor. Their efforts were concentrated in a large white spruce in a small woodlot containing mixed evergreens. This was an assortment of trees of different ages, heights and diameters. Overall, the cover was dense, especially in the spruce. After much gawking from various angles, I finally saw a feathered shape. At first, only a short rounded tail and boldly-streaked breast could be seen, indicating a possible Northern Saw-whet Owl. But this bird was obviously larger than the 17 Saw-whets previously observed this fall. Desiring a better look, I climbed an adjacent tree, placing the owl on an eye-level with me. The bird was now in full view. Its facial discs were whiter than a Saw-whet's, the frames were black, and it had a yellow bill. My presence did not alarm it, as it proceeded to feed on a meadow vole. I went home for a camera, and upon my return, the owl was gone. After a short search I relocated it in a pine a short distance away where its picture was taken. **Jeff R. Newman, 4401 Regent St., Duluth, MN 55804.**

Boreal Owl, November 18, 1986, Duluth. Photo by Jeff Newman.

LARK BUNTING AT DULUTH — On Oct. 28, 1986, a bird appeared in my yard, that at first glance appeared to be a Song Sparrow. Its most noticeable field mark was a streaked breast with a dark central spot. But further study showed that its proportions were wrong. This bird's body was more robust and its tail was shorter. Also, its bill was more massive and the binoculars revealed it to be blue. When feeding on the ground it would occasionally show a thin white wing patch, but this was barely evident. I didn't think much of it at first, supposing it to be either feather wear or a partially injured wing. Later, when it lifted its wings to preen, large distinct white wing patches were exposed. The bird was unfamiliar to me. I only knew that it was not native to this area. After examining several field guides, it was determined to be a Lark Bunting, a bird primarily of the Great Plains. Its presence here placed it somewhat east of its normal range. It was observed again the following day, but not thereafter. **Jeff R. Newman, 4401 Regent St., Duluth, MN 55804.**

AMERICAN KESTRELS FLEDGED — Last spring (1986) I felled a dying tree in our front yard. As I started to cut it up for firewood, I thought I heard something, and soon I discovered a nest and five young American Kestrels in the downed tree. After much telephoning to various "bird people" in our area, it was decided to try and relocate the birds as near as possible to the original nest site, so that the adults would find and care for the young. I should add that we have many cats in the area and it seemed ill-advised to just leave the birds where they were. We nailed a Wood Duck box to the nearest tree, as high up as we could reach with a step-ladder. I then placed the young birds in the box along with a portion of the original nesting material from the hollow limb. I spent a troubled night and then an anxious morning watching the box with binoculars. About mid-morning I finally saw the female find the box and feed the young. What joy! We were subsequently able to watch all five young fledge and eventually watch the female teach them to fly. For most of the summer we would hear and see our "extended family" in the tree tops in our yard. **Mr. & Mrs. Kirk D. VanDorn, Rt. 5, Box 227B, Bemidji, MN 56601.**

Juvenile American Kestrel. Photo by Kirk D. Van Dorn.

A RUBY-CROWNED KINGLET WINTER RECORD — On a cloudy December 10, 1986, shortly after noon, I noticed a small bird in the crabapple tree outside my kitchen window. It caught my eye because of its size - smaller than a chickadee - and its all-over, unstreaked, olive-green color. For an instant I thought, "Oh, a female goldfinch." The bird's behavior and markings quickly dispelled that idea. It was feeding at the hanging suet feeder, and was constantly flicking its wings, and moving every second or so. The tiny "plumpish" bird also had a very distinct white eye ring nearly encircling its eyes, strong wing bars that showed clearly against the olive-green color, and a visible (!) red crown patch. By now I was sure, albeit surprised, that I was observing a Ruby-crowned Kinglet! Realizing that this was a late sighting for this bird, I called Bob Janssen on the MOU hotline, and also photographed the bird from the window, which was about six feet from the bird. The bird has delighted me on eleven separate days, with the last sighting on January 24, 1987, during a light snowfall. Prior to these sightings I have observed Ruby-crowned Kinglets during spring and fall migrations, and banded one in my yard on September 24, 1986. These encounters were all exciting . . . yet fairly "normal." In contrast, these recent, prolonged visits by the kinglet to my suet feeder in a leafless crabapple tree have afforded me excellent viewing, and immense thrills. A "tiny" bit of winter serendipity! **Deb Grotenhuis, 3822 Brown Lane, Minnetonka, MN 55343.**

TWO ICELAND GULLS AT GRAND MARAIS — Late each fall thousands of Herring Gulls arrive at Grand Marais to eat fish entrails put out for them by commercial fishermen. Along with Herring Gulls also come a few white-winged gulls including Glaucous, Thayer's and Iceland. On several occasions we attempted to sort through the Herring Gulls to find the less common white-winged species and found only Glaucous Gulls in various plumages. Finally on December 2, 1986, an adult gray mantled gull about Herring Gull size but without black wing-tips flew in front of us about 15 feet above the water and as close as 100 feet from us. It was overcast but bright; we watched with binoculars as this gull continued circling low with Herring Gulls. The wing tips were pure white above and below. After careful comparison we decided it was definitely smaller than a Herring Gull and with a smaller bill. Its flight was more like that of the Herring Gull and not like the heavier flight of a Glaucous Gull which we also observed circling with the group. After about five minutes the gull we were studying flew to a gravel beach and landed in the "standing room only" crowd on the beach about 250 feet from us. We temporarily lost it as all we could see were heads and necks in the moving mass of gulls. Scanning with a 20× scope we quickly located the smaller rounder head and smaller bill as compared with the surrounding Herring Gulls. Gulls jostled about and preened on the beach and we had glimpses of the smaller gull's body and confirmed that the wing tips were all white. The gray mantle was very close in color to the color of the Herring Gull mantles. The bill was yellow and smaller than the bills of adult and subadult Herring Gulls nearby. The eye color appeared to be a mixture of dark and yellow being darker than the pale yellow of adult Herring Gulls. We were now sure we were looking at an adult Iceland Gull. Anyone who has tried to identify an immature Iceland Gull (***The Loon*** 58:18) would understand our satisfaction at seeing an adult bird. Just at this time, however, as if to make things interesting, a second gull walked over and stood next to the adult Iceland. This second bird had a profile identical to the adult Iceland (same small rounded head and same bill size). It was also decidedly smaller overall than the Herring Gulls and perhaps even smaller than the adult Iceland Gull. It had smudges of gray on its upper mantle, white head, neck and wing-tips, but otherwise was a whitish bird speckled with gray and buff. The end ⅓ of the bill was dark. The eye was very dark, darker than the eye of the nearby adult Iceland Gull. The wing tips extended beyond the tail about one "bill length." This gull looked very much like the second winter Iceland Gull as pictured in the National Geographic Field Guide. When this bird flew, however, it had a definite "dark - light - dark" pattern on the wing (outer primaries - inner primaries - secondaries). We knew that the first year Thayer's Gull has this same wing pattern but should also have an all dark bill. Kim Eckert and Keith Camburn came up later in the day, and it was Kim's

opinion that the subadult bird was a second winer Iceland Gull based on a photograph in Grant's gull book showing the dark - light - dark wing pattern on such a bird. Kim and Keith also saw the adult Iceland Gull. **Ken and Molly Hoffman, Grand Marais, MN 55604.**

ICELAND GULL AT LAKE CALHOUN — Between November 29 and December 5, 1986, I had seen at least two Thayer's Gulls and three Glaucous Gulls with the hundreds of Herring Gulls that gathered each evening on Lake Harriet and Lake Calhoun in southwest Minneapolis. On the afternoon of December 8, Greg Pietila and I decided to see if there were still gulls coming to the lakes. We arrived at the north beach of Lake Calhoun at 3:10 p.m. and found a group of about 35 Herring Gulls and one or two Ring-billeds standing on the ice behind a small seam of open water about 80 yards from shore. With a spotting scope I noticed an immature white-winged gull swimming in the water, directly in front of this group). We spent the next twenty minutes taking field notes as we observed this gull at 20 - 30 x. Its plumage was very similar to that of a first-winter Glaucous Gull. The overall coloration was an off-white, mottled throughout with buff to light-brown feather edgings. Around each eye there was an ill-defined dusky area. At rest, the primaries were even lighter than the rest of the wing and body, appearing from our distance to be an unmarked buffy-white. When the wings were open the palest part of the fairly uniform upper surface was the outer primaries. The tail, which was as light as the body, was speckled with buff, and showed no obvious band. This gull, however, seemed too small to be a Glaucous. It looked smaller than any of the Herrings standing behind it. When a first-winter Herring rose from the ice and landed in the water beside the lighter gull, the size difference was confirmed. The white-winged gull was considerably smaller, both in length and height, its neck was thinner, and its head was tiny by comparison. Its bill, too, was smaller than the Herring's. At first we thought the bill was all black, but a closer look revealed that approximately the basal two-thirds was actually a dark pinkish/orange-gray, this blending gradually into a black tip. This could be seen best when the gull preened, holding the bill against its lighter body. Its legs, visible when it finally joined the other gulls on the ice, were dull pink. We decided that the gull wasn't a Thayer's because its bill wasn't all black, its primaries were the palest part of the bird, and its tail had no brown band. It wasn't a Glaucous because its proportions were too small, and its bill, besides being too small, didn't have a sharp, two-toned "dipped-in-ink" look. We concluded that the bird was a first-winter Iceland Gull. A look through the field guides, and further research into available literature on the subject, substantiated our identification. This is the first record of an Iceland Gull in Hennepin County. **Steve Carlson, 2705 Dupont Ave. S., Minneapolis, MN 55408.**

FEMALE BARROW'S GOLDENEYE AT LAKE CALHOUN — On the afternoon of November 29, 1986, Greg Pietila and I were watching a Glaucous Gull from the south beach of Lake Calhoun in Minneapolis when I spotted what I thought might be a female Barrow's Goldeneye swimming with several Common Goldeneyes about 40 yards from shore. We began taking notes as we studied the bird through a 20-45x scope. Three features distinguished this duck from the female Commons. First, the bill was entirely bright-orange except for the small back nail at its tip. Second, the head was a darker shade of brown than that of any of the Commons. Third, the head shape was different than the Commons', elongated and rectangular rather than pointed and triangular. The forehead rose steeply from the bill at about 90 degrees from the waterline, the crown was flat, dropping slightly posteriorly, and the back of the head sloped down at about 45 degrees. After we had made these initial observations, another birder, Renner Anderson, showed up at the beach. When we told him what we'd seen, he set up his Quester and spent the next hour and a half watching the Barrow's Goldeneye with us. As we studied the goldeneyes over this extended period of time, the differences in head coloration and head shape were always apparent. We also noted that the Barrow's was darker overall, especially its back and sides. I once saw the female Barrow's wag its head rhythmically from side to side over its body in response to the

head-tossing displays of the two male Common Goldeneyes. This head-wagging display is considered typical of the female Barrow's Goldeneye, and is rarely performed by Commons. Coincidentally, this sighting occurred three years, to the day, after I discovered a male Barrow's Goldeneye on Lake Calhoun. **Steve Carlson, 2705 Dupont Ave. S., Minneapolis, MN 55408**

HOW TO FIND A CAROLINA WREN — When a certain species hasn't been seen in a town or county for a number of years, how do you go about finding one? I'm sure every birder at some time or other has had to cope with this problem. Herewith is a short account of HOW TO FIND A CAROLINA WREN IN FILLMORE COUNTY. To start with, it is a good idea to keep in mind the words of Alexander Dumas, which Joe Deden has mounted at the Forest Resource Center near Lanesboro: "All human wisdom can be summed up in two words - wait and hope." Secondly, it is a good idea to follow the example of that great early 20th century Fillmore County observer Dr. Johan Christian Hvoslef, whose method was to choose a nice level tree stump and sit for two to three hours and observe what there was to observe. He then recorded his observations in a field notebook which he later recorded in detail in his daily journal, which he later reported to T.S. Roberts or to Frank Merriam in Washington. Another thing that helps is to slowly cruise the streets of the town checking out residential feeding stations. That's what I was doing on January 24, 1987. In Lanesboro, East Kirkwood Avenue is a good street for feeders; several had Pine Siskins, Purple Finch and woodpeckers. House #306 has many feeders; its backyard backs up on the brushy edge of Sylvan Park. On the west side of the house is a prettily decorated white feeder that was very popular with the birds. Below it, amidst the inevitable House Sparrows, was something different. A long tail was swishing amongst them, and in front of the long tail was a bright buff breast, and a head with a clear white eye-stipe and long beak. No doubt about it, a Carolina Wren was present in Fillmore County as in days of old when they were known to nest there. That made the third southeastern county this winter in which this wren was present; Mower and Olmsted had Carolina Wrens too. When I later made contact with the residents of #306, Millie and Laird Adams, I learned that they knew they had a rare bird; they knew what it was, and what's more, it had been there since at least last Thanksgiving (over two months before my sighting of it). So it might be helpful in finding rare species to remember what I learned again that day: 1) It pays to check out feeding stations. 2) People know what they have coming to their feeders. 3) Get to know the people doing the feeding, if you want to know what they know they have. **Anne Marie Plunkett, 2918 S.W. 15th Ave., Rochester, MN 55902.**

A VERY EARLY TURKEY VULTURE

Date: 9 February, 1987

Location; Over Sections 8,9,17 and 16 of Fillmore County (in the vicinity of the Rushford Municipal Airport)

Reason observation is unusual: Early spring date.

Light conditions: Bright, 2:30 p.m., high scattered clouds breaking up to clear skies within the half-hour.

Length of observation: Close overhead, about two minutes; at a distance, about another three/four minutes

Habitat: Above the Root River Valley west of Rushford; above Hwy 30.

Optics used: Leitz Trinovids, 10 x 40 B

Other observers: None that day. John Morrison (Austin, MN) had reported seeing this species on 7 February, 1987 near Camp Winnebago in Houston County.

Experience with this and similar species: Very familiar with this species as it is a summer resident in southeastern Minnesota. I am also familiar with the Black Vultures of the southern U.S., as well as with the immature Bald Eagle which it can approximate in wing span.

Species similar to this bird and how eliminated from consideration: The Black Vulture flies

differently with a flap and glide pattern; the bird I was watching did not, but rather wafted with firmly held wings in a tilting fashion from side to side. Also this bird had no white/light at the base of the primaries as does the Black Vulture. Immature or sub-adult Bald Eagles also fly differently, with wings flat-out giving a broad flat look. This bird occassionally held its wings in a slight "V" as it tilted side-to-side. The underwing pattern is also different, the eagle showing dark in the flight feathers, and the vulture showing light — the reverse.
Were you aware at the time that the sighting was unusual: Yes; in fact, I was specifically looking for Turkey Vultures because of the sighting of 2-7-87.
References consulted: None; at home, I rechecked the difference in adult vulture and sub-adult eagle plumages to be sure.
Applicable statements: Field guide not needed to make identification
Description: A word or two about the weather conditions: 52 of the past 57 days have been above normal in temperature in this unusual Minnesota winter. Two days prior to my sighting, we had broken existing records with a high of 52 degrees. February 8, we had experienced high winds (up to 35 mph) in southeast Minnesota; these decreased on the 9th in the morning and by the time of this sighting they were still present at about 10/15 mph but petering out to gusts; the overcast was dispersing rapidly. Ten minutes after this sighting I checked the wind sock at the Rushford Municipal Airport (less than ½ mile from the sighting site) and it was showing gusty, interrupted winds from the S.W./S. Like the hawks and the vulture, I was riding the ridges above the valleys of Pine Creek and the Root River. A Rough-legged Hawk had just taken off from its tree perch atop the ridge I was cruising slowly; watching him, a Turkey Vulture hove by and came very close to me overhead. One look with the Trinovids to check out field marks - the small head, the dark wing linings with the lighter/gray flight feathers, the large size of the wing span, the slight dihedral, the side-to-side tilting flight, and the long tail were enough to make me feel certain I was looking at a Turkey Vulture. Knowing this to be very early to be seeing this species, I reported to Robert Janssen as soon as possible. **Anne Marie Plunkett, 2918 S.W. 15th Ave., Rochester, MN 55902.**

Proceedings of the Minnesota Ornithological Records Committee

by Kim R. Eckert, M.O.R.C. Secretary

The following records were voted on July-December, 1986, and found Acceptable: — Mute Swan, 4/28/85, Orwell W.M.A., Otter Tail Co. (vote: 6 Cc, 3 wild, 1 escape). All ten MORC members vote on questions of wildness, with a majority in favor of "Cc" status in this case (i.e., wild or captive origin of this record of a casual species unclear, but record is Acceptable; see ***The Loon*** 58:43).

—Painted Bunting, 5/18/86, near Leota, Nobles Co. (vote 7-0; ***The Loon*** 58:129).

—Worm-eating Warbler, 5/8/86, near Kasota, Le Sueur Co. (vote 7-0; ***The Loon*** 58:139).

—Henslow's Sparrow, 7/6/86, Frenchman's Bluff, near Syre, Norman Co. (vote 5-2; ***The Loon*** 58:130).

—Carolina Wren, 7/19/86, Rochester, Olmsted Co. (vote 7-0; ***The Loon*** 58:143-144).

—Mountain Plover, 7/2-5/86, near Huntley, Faribault Co. (vote 10-0; ***The Loon*** 58:154-158).

In the case of potential first state records, all ten MORC members vote.

—Baird's Sparrow, 7/6/86, Felton prairie, Clay Co. (vote 5-2).

—Snowy Plover, 6/30/86, near Glyndon, Clay Co. (vote 7-0; ***The Loon*** 58:142).

—Mississippi Kite, 8/19/86, York Twp., Fillmore Co. (vote 7-0; ***The Loon*** 58:192-194).

—Lazuli Bunting, 5/5-11/86, near Clearwater, Stearns Co. (vote 7-0; ***The Loon*** 58:192).

—Clark's Nutcracker, 9/13/86, Austin, Mower Co. (vote 7-0; ***The Loon*** 58:199).

—House Finch, 4/7/86, St. Cloud, Stearns Co. (vote 7-0; ***The Loon*** 58:204).

—Barrow's Goldeneye, 11/29/86, L. Calhoun, Minneapolis, Hennepin Co. (vote 6-1; ***The Loon*** 58:60).

—Iceland Gull, 12/8/86, L. Calhoun, Minneapolis, Hennepin Co. (vote 7-0; ***The Loon*** 58:61).

The following records were voted on July-December, 1986, and found Unacceptable:

—Black-headed Grosbeak, 5/26/86, Andover, Anoka Co. (vote 2-5). Although the description seemed to indicate Black-headed Grosbeak and no other species, the main problem with the record was that the observers were unaware that the species was unusual since they claimed to have seen the species twice before in Minnesota, but did not report them, in 1983 and 1984. The majority, therefore, felt it most unlikely that someone could have seen this accidental species three times in three years in the state.

—Upland Sandpiper, 10/27/86, Co. Rd. 15, Washington Co. (vote 3-4). The long yellow legs, long straight bill, upright stance, size and shape all fit Greater Yellowlegs just as well as, if not better than, Upland Sandpiper, which normally departs Minnesota in August.

—Mississippi Kite, 9/23/86, Duluth, St. Louis Co. (vote 6-1, with 7-0 required for Acceptance). Although the observer was unable to see or describe all features of this flying bird (e.g., nothing about the tail was described), the majority felt the details were complete enough to indicate Mississippi Kite and preclude all other possibilities. However, the dissenting member felt the record was exceptional enough to require that a more complete description should be given for acceptance.

—Red-billed Pigeon, 7/4/86, West St. Paul, Dakota Co. (vote 6-4, with 10-0 required for Acceptance). As a potential first state record, all ten members voted. Although the description seemed to fit Red-billed Pigeon, the minority felt the details could also fit some sort of variant Rock Dove. Even if the description were unanimously acceptable, however, it was agreed that a Red-billed Pigeon could "never" reach Minnesota on its own and would certainly be an escape.

—Clark's Grebe, 5/23/86, Lake Osakis, Todd Co. (vote 4-3, with 7-0 required for Acceptance). This sight record (see ***The Loon*** 58:110-111) was described by Clark's Grebe expert John Ratti as "probably" a Clark's Grebe with "abnormal coloration" that he had never seen before; he also stated that "it could be a hybrid." The minority felt, therefore, that while the individual may have been a Clark's, the possibility of it being a hybrid still existed, and that for such an unusual species (only one accepted state record) only fully typical Clark's Grebes should be accepted for the time being.

—Glossy Ibis, 6/16/1939, Heron Lake, Jackson Co. (vote 4-6). As a first state record, all ten members voted. This published sight record (see **The Wilson Bulletin** 51:183) has been considered the only accepted record on the official Minnesota checklist for years, but the majority reconsidered and now finds it unacceptable. The identification of this adult ibis was based entirely on "no evidence of white in the very dark feathers about the base of the bill." However, there is no indication of the distance or light conditions involved, so it is unclear how well the bird was seen. Further, according to Douglas Pratt in **Birding** (8:2): "The white face [of White-faced Ibis] is acquired last in the sequence of changes leading to the breeding plumage and in some individuals is quite narrow and difficult to see." Therefore, the possibility of this ibis being a White-faced is not fully precluded, and Glossy Ibis is now considered deleted from the state list.

—Common Raven, 12/6/86, Sumner Twp., Fillmore Co. (vote 1-6). The two individuals were identified only on the basis of tail shape (which was only seen without binoculars) and size (however, nothing was present for direct comparison). Also, no vocalizations were described, and the observer apparently had no previous experience with raven vs. crow identification. **9735 North Shore Dr., Duluth, MN 55804.**

Purple Martin
Colony Registry

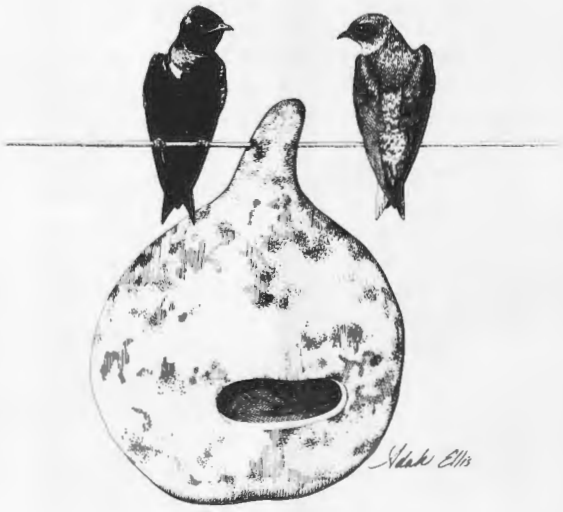
The Purple Martin is a bird which has been managed by man longer than any other North American bird species. Even before European man colonized the New World, native American indians were enticing these companionable birds to nest in their villages by attaching hollowed-out gourd "nest boxes" to the support poles of their wigwams. Modern man has continued this gourd-using tradition to attract martins, but he also has taken to using elaborate wooden, plastic, or aluminum multi-compartmented bird condos (i.e. "martin houses") which he mounts on poles and proudly displays on his lawns.

Today however, this man-dependant species is declining within parts of its breeding range. In an attempt to remedy the situation, the Purple Martin Conservation Association has been formed to help coordinate the management efforts of North America's martin landlords. Through its Colony Registry Program it is attempting to locate and register most of the martin colonies in North America in preparation for several worthwhile projects, including a continent-wide nest-record card scheme.

Your help is needed

If you know of someone who has a martin colony or is trying to attract one, or if you are interested in starting a colony yourself, please write to the P.M.C.A. You can further assist by looking for martin houses or gourds in peoples' yards during your travels. If you locate some, please try to obtain the mailing address from either the street & house numbers, rural mailboxes, phone books, or by stopping to inquire. Please send addresses to: P.M.C.A., P.O. Box 178, Edinboro, PA 16412.

Purple Martin Conservation Association



PURPOSE OF THE MOU

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 promote the preservation of birdlife and its natural habitat.

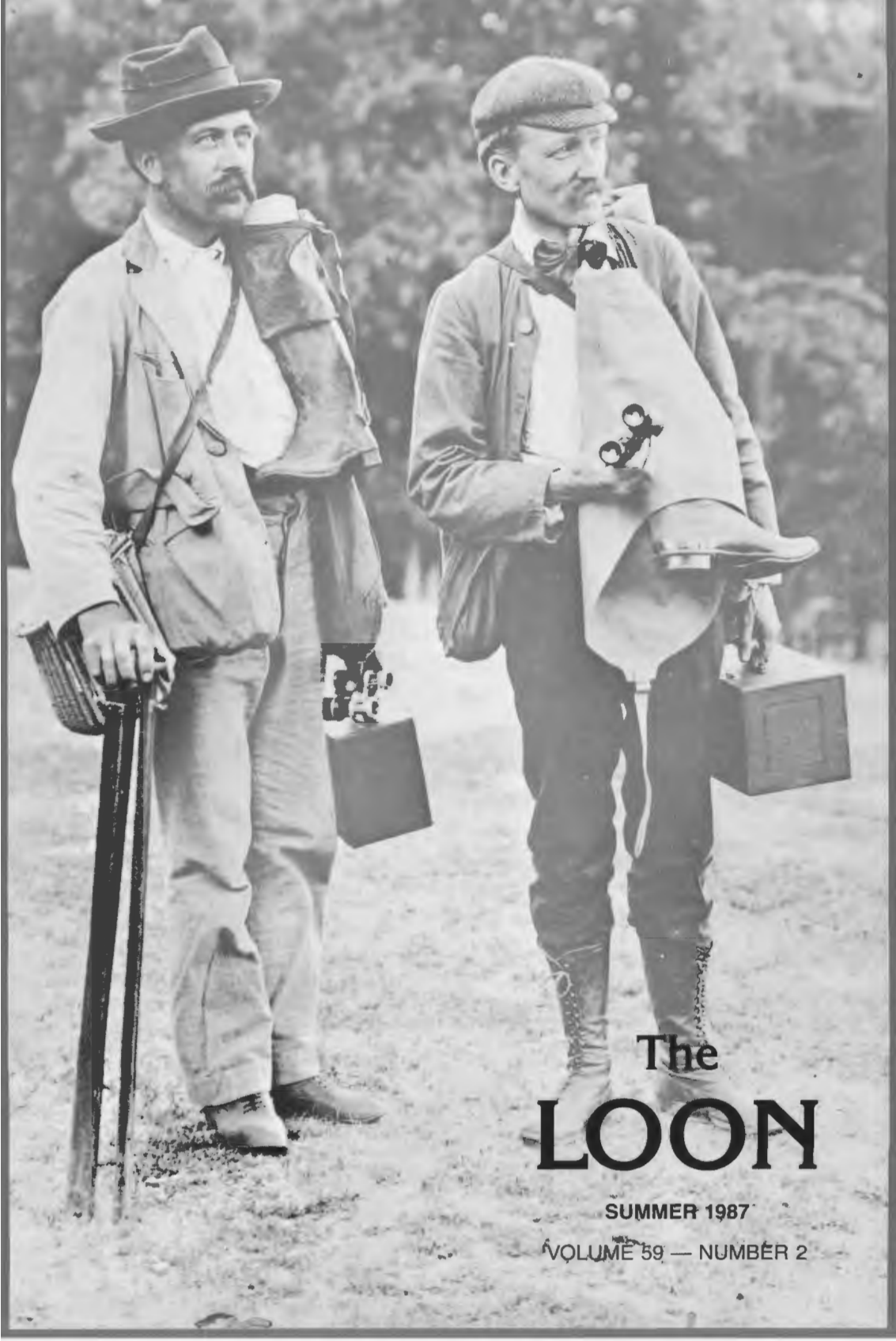
We carry out these aims through the publishing of a magazine, *The Loon*; sponsoring and encouraging the preservation of natural areas; conducting field trips; and holding seminars where research reports, unusual observations and conservation discussions are presented. We are supported by dues from individual members and affiliated clubs and by special gifts. The MOU officers wish to point out to those interested in bird conservation 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* invite you to submit articles, shorter "Notes of Interest" and color and black/white photos. Photos should be preferably 5x7 in size. Manuscripts should be typewritten, double-spaced and on one side of sheet with generous margins. Notes of Interest should be generally less than two typewritten pages double-spaced. If reprints are desired the author should so specify indicating the number required. A price quotation on reprints will be sent upon receipt of information.

Club information and announcements of general interest should be sent to the Newsletter editor. See inside front cover. Bird-sighting reports for "The Season" should be sent promptly at the end of February, May, July and November to Kim Eckert. See inside front cover.

TABLE OF CONTENTS



The LOON

SUMMER 1987

VOLUME 59 — NUMBER 2

The LOON Minnesota's magazine of birds, is published four times each year by the **Minnesota Ornithologists' Union,** the statewide bird club. Permanent address: J. F. Bell Museum of Natural History, 10 Church St. S.E., University of Minnesota, Minneapolis, MN 55455-0104. Anyone interested in birds may join. Any organization with similar aims may affiliate. All MOU members receive our two quarterly publications: ***The Loon*** and the **MOU Newsletter.**

MEMBERSHIPS AND SUBSCRIPTIONS: Evelyn Stanley, 213 Janalyn Circle, Minneapolis, Minnesota 55416. To join the MOU and receive both MOU publications, donate $12.50 for a regular yearly subscription. Or other classes of membership that you may choose are: Family $15.00 yearly; Supporting $20.00 yearly; Sustaining $30 yearly; Life $150. Canadian and Foreign Subscriptions, $20.00 yearly. **All memberships are on a calendar year basis.** Also available: back issues of ***The Loon*** ($3.00 each ppd.) and MOU checklists of Minnesota birds (minimum lots of 20 for $5.00 postage paid). Gifts, bequests, and contributions to the MOU Endowment Fund should also be sent to the treasurer.

EDITOR OF *THE LOON*: Robert B. Janssen, 10521 S. Cedar Lake Rd., #212, Minnetonka, MN 55343 (phone 612-546-4220). The editor invites articles, short notes, and illustrations about Minnesota birds. See back cover for details. **Associate Editors: Kim R. Eckert, 9735 North Shore Dr. Duluth, MN 55804; Anne Marie Plunkett, 2918 S.W. 15th Ave., Rochester, MN 55902; Dr. Harrison Tordoff, Bell Museum of Natural History, University of Minnesota, Minneapolis, MN 55455.**

"The Season" section of ***The Loon*** publishes reports of bird sightings 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 to "The Season," request the report forms from the **EDITOR OF "THE SEASON," Kim Eckert, 9735 North Shore Drive, Duluth, Minnesota 55804 (phone 218-525-6930).**

EDITOR OF THE MOU NEWSLETTER: Bette Bell, 5868 Pioneer Rd. S., St. Paul Park, MN 55071. Publishes announcements and reports about activities of the MOU and its affiliated clubs. (Club officers should keep both MOU editors informed.)

MOU OFFICERS

PRESIDENT: Bob Holtz, 2997 N. Chatsworth, St. Paul, MN 55113.

FIRST VICE PRESIDENT: Jo Blanich, Box 96, Crosby, MN 56441

SECOND VICE PRESIDENT: Mike Mulligan, 8501 Tiqua Circle, Chanhassen, MN 55317

SECRETARY: Marion Cashdollar, 9400 Cedar Ave. #102, Bloomington, MN 55420.

TREASURER: Ed Kuehnel, 2731 MacKubin St., #39, Roseville, MN 55113

MOU COMMITTEE CHAIRPERSONS

MINNESOTA ORNITHOLOGICAL RECORDS (M.O.R.C.): Robert B. Janssen, 10521 S. Cedar Lake Rd. #212, Minnetonka 55343. RESEARCH AND RECORDS: Janet C. Green, 10550 Old North Shore Rd., Duluth 55804. FIELD TRIPS: Marilyn Lancaster, 1860 S. Mississippi Blvd., St. Paul 55116. MEMBERSHIPS: Evelyn Stanley, 213 Janalyn Circle, Minneapolis 55416. NOMINATIONS: Kathy Heidel, 5085 Meadville St., Excelsior 55331. UNIVERSITY COORDINATION: Dr. Harrison Tordoff, Bell Museum of Natural History, Univ. of Minnesota, Minneapolis 55455. THOMAS ROBERTS AWARD: Doug Campbell, 4917 Russell Ave., Minneapolis 55410. SLIDE FILE LIBRARY: Wayne Peterson, 5812 Admiral Lane, Brooklyn Center 55429. HISTORIAN: Oscar Johnson, 7733 Florida Ave., Brooklyn Park 55455.

AFFILIATED CLUBS OF THE MINNESOTA ORNITHOLOGISTS' UNION

AGASSIZ AUDUBON SOCIETY
President: Steve Nelson, 406 S. Progress
Warren, MN 56762

ALBERT LEA AUDUBON SOCIETY
President: Arlene Bryson
Rt. 2, Alden, MN 56009

AUDUBON CHAPTER OF FARGO-MOORHEAD
President: Carol Sparbeck, 2834 N. 2nd St.
Fargo, ND 58102

AUDUBON CHAPTER OF MINNEAPOLIS
President: Jo Ellen Warolin, 2138 Centerview Lane
Mound, MN 55364

AUSTIN AUDUBON SOCIETY
President: Dorothy Owens, 2104 W. Oakland Ave.
Austin, MN 55912

BEE-NAY-SHE COUNCIL
President: Steve Blanich, P.O. Box 96
Crosby, MN 56441

CENTRAL MINNESOTA AUDUBON SOCIETY
President: Craig Lee, P.O. Box 753
St. Cloud, MN 56301

COTTONWOOD COUNTY BIRD CLUB
President: Ellis Gerber, 320 N. 12th St.
Mountain Lake, MN 56159

DULUTH AUDUBON SOCIETY
President: Doug Johnson, 427 N. 16th Ave. E.
Duluth, MN 55812

JACKSON COUNTY BIRD CLUB
President: Maureen Hendrickson, Box 394,
Lakefield, MN 56150

HIAWATHA VALLEY BIRD CLUB
President: Dave Palmquist, 84 Fairfax St.,
Winona, MN 55987

LESUEUR VALLEY BIRD CLUB
President: Marie Wierwill, 506 S. Main,
LeSueur, MN 56058

MANKATO BIRD CLUB
President: Larry Filter, 604 Lakeview
North Mankato, MN 56001

MINNEAPOLIS AUDUBON SOCIETY
President: Donald H. Wheeler, 1425 W. 28th St., #609
Minneapolis, MN 55408

MINNESOTA BIRD CLUB
President: Wally Jiracek, 10112 Dupont Ave. S.,
Bloomington, MN 55431

MINNESOTA RIVER VALLEY AUDUBON CLUB
President: Joe White, 9028 Kell Circle
Bloomington, MN 55431

MISSISSIPPI HEADWATERS AUDUBON SOCIETY
President: James Elwell, Rt. 8, Box 479
Bemidji, MN 56601

ROSEVILLE BIRD CLUB
President: Margaret E. Kehr, 988 W. Co. Rd. D
St. Paul, MN 55112

ST. PAUL AUDUBON SOCIETY
President: Carole Brysky, 277 E. Morton
St. Paul, MN 55106

WILD RIVERS AUDUBON SOCIETY
Box 266
Chisago City, MN 55013

WILDERNESS HERITAGE AUDUBON CHAPTER
President: Art Norton, Star Rt. Box 12,
Warba, MN 55793

ZUMBRO VALLEY AUDUBON SOCIETY
President: Jo Theye, Rt. 3,
Rochester MN 55901

Thomas Sadler Roberts
Father of Minnesota Ornithology

We are now approaching the 50th anniversary of the Minnesota Ornithologists' Union and it seems most appropriate to honor the extensive contributions of that person who, in retrospect, we now recognize as the "Father of Minnesota Ornithology." Dr. Thomas Sadler Roberts' **Birds of Minnesota** published back in 1932 is still designated by most bird oriented students throughout America as the outstanding state publication in this field. And well it might be so designated since the author after 60 years of field observations and meticulous note-taking has succeeded in assembling a really astonishing amount of information about Minnesota and its wealth of bird life.

In this issue of ***The Loon*** the editor and Ms. Krosch have appropriately chosen to reprint Dr. Roberts' published account of what was probably his first extensive trip, in 1879, away from the Twin City area, in search of data to significantly expand the then small store of knowledge of the birds of Minnesota.

Walter J. Breckenridge

Thomas Sadler Roberts - circa 1900

Three New Species for Minnesota: Roberts and Benner Trip to Western Minnesota

Penelope Krosch

On a bright June day, two young men set forth from Minneapolis on a field trip to locate a pelican colony located near Herman. There is nothing unique about the event until one learns the name of the men and the year. The year was 1879. The men were Thomas Sadler Roberts and Franklin Benner. They were off on a trip which was to result in three new species being added to the list of Minnesota state birds and an article being published in the **Bulletin of the Nuttall Ornithological Club** in 1880.

Thomas Sadler Roberts, who has been called the father of Minnesota ornithology, was twenty-one years old in 1879. He had been keeping a record of his observations for the past five years and was an expert in the bird life of Minnesota and an avid botanist. The trip to Grant and Traverse Counties was Roberts' first visit to the prairies west of the Twin Cities. Data collected on the trip would eventually be used in Roberts' life work, **Birds of Minnesota**, published by the University of Minnesota Press in 1932.

Benner and Roberts had been friends since 1874 when Benner had made his first trip to Minneapolis. Roberts, then sixteen, had become interested in studying birds and was encountering difficulties in preparing and systematizing his collection of bird skins and eggs. He heard of a young man (Benner was then twenty-one) who was visiting Minneapolis and was collecting birds. Roberts searched him out and found the mentor for whom he had been looking. Benner, a New Yorker, had traveled west for his health and to add to his extensive collection of birds. The two became fast friends and maintained a steady correspondence until Benner's return in 1879.

Both men kept journals of the trip. The two journals may be found in the records of the Bell Museum of Natural History on deposit in the University of Minnesota Archives. Roberts' journal, which is the more complete, records his observations of natural history. Benner was taken with the novelty of his surroundings as he had never visited the prairies west of Minneapolis. The trip lasted from June 5 to 21 and is completely recorded in Roberts' journal. Benner unfortunately quit making entries in his journal on June 15 just after their arrival in Brown's Valley.

Minnesota, at the time, was in a peak settlement period. The prairie was just being taken up as homestead land or by purchase from the railroad, and settlement was just beginning to have its profound effect on the virgin tall grass prairie. The marshes, potholes and upland areas of Grant and Traverse Counties teemed with ducks, Marbled Godwits, Bobolinks, Killdeer, Franklin's Gulls, Upland Sandpipers, and American Bitterns. Roberts and Benner added three species to the Minnesota state list: Chestnut-collared Longspur, Lark Bunting, and the Western Kingbird.

Benner and Roberts left Minneapolis on June 5 taking the railroad to Herman in Grant county. Herman had only been in existence for about a year or so. Benner described it: "This place consists of about thirty houses grouped about the depot and a grain elevator which is a store house for the wheat raised in the neighborhood. It is placed upon the prairie with no trees in sight except a very small grove just in sight of the town near one of the numerous lakes or sloughs with which the prairie abounds." They did not camp but boarded with one of the local storekeepers and either hiked or hired a team and driver to take them out on the prairie. The weather curtailed some of their expeditions as there were several wet and blustery days, typical of Minnesota June weather.

On their first day out in the field they met with outstanding success and collected three Marbled Godwits, a Willet, a Franklin's Gull and several other species. However, the peli-

cans proved elusive. They were surprised to find a fair number of woodland birds in the woods around the small lakes in the area including Least Flycatchers, Black-billed Cuckoos, Warbling Vireos and House Wrens. They also encountered several aquatic species including Pied-billed Grebes, Mallards and Great Blue Herons.

Roberts and Benner first sighted the Chestnut-collared Longspurs on June 9, while touring the upland prairie areas between Herman and Gorton. Roberts describes them as being the only bird to be found in some areas. "The males were conspicuous from their habit of sitting on the tops of slender weeds and rising into the air to sing Bobolink fashion. In the former position they looked like a black coal, a ball fastened to the top of a weed when viewed from the front. In all their action and song they are very like the Bobolink. Rising from the ground they would fly about in a large circle in a wayward dipping kind of flight, pausing now and then with expanded tail and hovering wings to utter their short pleasing song. With tail spread and thrown slightly up, outspread, hovering wings and head thrown slightly up, they look like some curiously shaped leaf or other object fluttering in the air. This habit of pretending to be about to alight and then going on is very marked and quite aggravating to a person chasing them." Benner was able to locate a nest on the next day.

The Lark Bunting, or White-winged Blackbird as it was known in Roberts' time, was also sighted and taken on June 10 without much fanfare. They secured a male bird in good plumage near the railroad track near Herman. Benner described the event. "As we were walking on the Railroad track on our way home within a half a mile north of the Elevator, Roberts cried, 'there is a White-winged blackbird' and on looking up I saw the bird sitting on the rail and immediately shot him for it proved to be a male in very good plumage. This appears to be the first instance of its capture in this state known to Science. Nothing was seen of the female." Roberts' description of the event is much less dramatic.

On June 13, they decided to go a bit further afield. They hired a team and driver to take them to Elbow Lake where they hoped to meet a young farmer who was reputed to be a "bird stuffer." Jasper Sanford was working his mother's homestead claim. He proved to be more knowledgeable than they expected, as they learned that he had worked with ornitholgist George B. Sennet both in Minnesota and on a collecting trip to Texas. Sanford was an expert at preparing study skins and showed his fellow enthusiasts several excellent specimens as well as his collection of eggs, many of which came from Texas. He also showed them a fine skin of a Swainson's Hawk which he had killed only a few days before and the eggs of a Red-necked Grebe taken at a near-by lake. Sanford gave Benner a pair of pelican eggs which he had collected from the mysterious colony. Sanford continued to be interested in birds for the rest of his life despite the demands of his large and prosperous farming operation. Some of his collections were donated to the Bell Museum of Natural History and some to the Smithsonian Institution.

On June 16, they left Herman to travel by stage to Brown's Valley, a trip of about forty-three miles. The stage proved to be a two seated wagon with no provision for protection from the weather. They managed to stash their guns and bundles among the mail bags and set off on a rough but enjoyable journey. While on route, they flushed the third new species for the state. The bird, a female Western Kingbird, was collected in Traverse County. Benner made **no** note of the fact and Roberts notes it only in an off-hand fashion. Several more of the birds were sighted in the area around Brown's Valley and they managed to collect additional specimens and eggs.

They spent their time determining which species occupied the Little Minnesota River valley between Lake Traverse and Big Stone Lake. The area teemed with bird life and they managed to secure some good specimens including a Traill's Flycatcher. On June 19, they returned to Herman where they took a few more specimens.

Benner and Roberts were never to see the pelican nesting colony which had been the main purpose of the trip. However, they were successful beyond their dreams in verifying three new species of birds for the Minnesota state list. Their account of the trip was published by the Nuttall Ornitholgical Club and lists all species of birds seen and/or collected on the trip. The article, however, contains only an abstract of the information contained in the two journals. Benner and Roberts were

seeing a prairie which only had a few more years to exist. By 1900, all would be changed. As much of the area was under cultivation, there was no longer room nor habitat for the flocks of birds which inhabited the prairies in 1879. The journals record ecological and human history and are just as important for this reason as for the establishment of three new species of birds for Minnesota.

Roberts was to go on and obtain his medical degree from the University of Pennsylvania. He established a successful medical practice in Minneapolis. The demands of his medical career prevented him from pursuing his interest in birds as actively as he wished. In 1914, he was able to retire and take a position at the University of Minnesota as Professor of Ornithology and Associate Curator of the Zoological Collecction. Roberts' second career was a great success for he was able to build a fine natural history collection, achieve his lifelong dream of writing a bird book (**Birds of Minnesota** published in 1932) and see the completion of the present day Bell Museum of Natural History. He died in 1946 at the age of 88.

Benner was unable to pursue his scientific interests in his later life due to the demands of his various business concerns. Roberts viewed Benner's choice of careers as a loss as Benner had a keen mind, was well educated and showed an early interest in writing. His diary of the trip to Grant and Traverse Counties exhibits his writing ability. Fortunately, his diary and other notebooks were given to Roberts. His collection of bird skins were donated to the Bell Museum of Natural History. Benner died in Minneapolis in 1938.

REFERENCES:

Benner, Franklin. Diary Trip to Grant Co., Minn., June 1879. University of Minnesota Archives, Minneapolis, Minnesota.

Roberts, Thomas Sadler. Grant and Traverse Co. Trip, June 1879. University of Minnesota Archives, Minneapolis, Minnesota.

Roberts, Thomas S. and Franklin Benner. "A Contribution to the Ornithology of Minnesota." **Bulletin of the Nuttall Ornithological Club** 5 (Jan. 1880): 11-20.

Roberts, Thomas S. **Birds of Minnesota** 2 vols. Minneapolis: University of Minnesota Press, 1932.

Editor's Note: The full text of Roberts' and Benner's article that appeared in the **Bulletin of the Nuttall Ornithological Club** (January 1880) is reprinted below. Where there is a difference in common name usage the current common name is given in brackets. The species listed under bird #84 is confusing. Colymbus torquatus is not listed in the A.O.U. checklist of that time. The species referred to is probably the Common Loon but the reference to it being common on the prairie is puzzling.

A Contribution to the Ornithology of Minnesota

By Thomas S. Roberts and Franklin Benner

The material for the present paper is the result of a two weeks' collecting trip in Grant and Traverse Counties, Minnesota, in the early part of June, 1879. The principal point of observations was at Herman, situated in the southwestern part of Grant County, and from it excursions were made to localities within fifteen or eighteen miles. The notes of Traverse County were made on the way to, and during a three days' stay at, Brown's Valley, situated some forty miles west of Herman, between Big Stone Lake and Lake Traverse, on the border of Dakota. These two localities, representing as they do the prairie fauna of the State, possess very little timber, and that only on the borders of some of the many lakes and pools which abound in these counties. Herman, situated on the open prairie, has no timber nearer than a mile and a half, where around a small lake, are a few large elm and oak trees accompanied by the usual underbrush of swamp-willows, alders, etc. Some fifteen miles to the northeast are two lakes, the larger of which, called Elbow Lake, is bordered by quite a large belt of timber, which proved to be a very interesting field of observation.

Brown's Valley, a trading-post, lies in a valley between the lakes previously mentioned, and on either side of it arise the high bluffs which border the State of Minnesota and the Territory of Dakota. The valley is about four miles long by about a mile wide, and its appearance indicates that it at one time was an extension of the lakes which it now separates, and formed with them a continuous water communication from Hudson's Bay to the Gulf of Mexico.

Some distance in the "Coteau des Prairies" rises the Minnesota River, which runs down into this valley near Lake Traverse, and then, flowing southward, empties into Big Stone Lake. It is here merely a small stream, not over ten or fifteen feet wide; yet along its banks for about two miles has centered all the timber visible, except perhaps a few stunted oaks in the gullies running down from the bluffs on either side. Swamp-willows, black-oaks, and two or three groups of large cotton-wood trees made up this wood, and into it seemed to be gathered all the birdlife for miles around.

From the date of these observations — June 5 to 20 — it is to be presumed that all the birds noted were breeding in the localities mentioned, or had their nests in the near neighborhood.

Although the birds around Minneapolis had been nesting some ten days or more, they seemed to have but just begun here, and most of the nests obtained contained fresh eggs.

Among the notable Water Birds observed were Forster's Tern *(Sterna forsteri)* and Franklin's Rosy Gull *(Larus franklin)*, which were seen daily, and, although no eggs were found, were apparently breeding. The occurrence of three birds heretofore unnoted in this State is of especial interest. They are the Chestnut-collared Bunting *(Plectrophes ornatus)*, the White-winged Blackbird *(Calamospiza bicolor)*, and the Arkansas Flycatcher *(Tyrannus verticalis)*. The first is the most common bird upon the dry prairie, and it seems strange that it should have been so long overlooked.

The varietal forms of the Grass Finch, Savanna Sparrow, and Meadow Lark seem to be very distinct, when compared with similar ones from regions further west, and with types from the southeastern portions of the State.

The vicinity of Herman abounds in small lakes surrounded with high reeds, and here the Ducks were breeding commonly. Their nests were not confined to the borders of the lakes, but were situated upon the prairie or in a wheat-field some distance from the water.

The most prominent Wader was the Great Marbled Godwit *(Limosa fedoa)* which was found all over the prairie wherever there was moisture. They seemed very fearless, and would fly around the intruder, or alight near him, uttering their shrill call. The disturbing of one seemed to arouse all within hearing distance, and they would come flocking together, and circle around, sometimes to the number of thirty or more. While feeding they seemed to go in flocks of from six to as many as fifty, upon the shores of the lakes. There seems to be a decided difference in the size of the sexes, which does not appear to be noted by authors, except Audubon, who states that the females are larger than the males. The bills are so very much longer in the females that the sex can be distinguished by this means alone. The difference in a series of ten skips between the shortest bill of the females and the longest bill of the males is fifty-four hundredths of an inch, the average difference being ninety-three hundredths. The measurements are given in full in their proper place.

In the following list the species were noted in both localities unless otherwise stated.

1. **Turdus migratorius**, *Linn.* ROBIN. [American Robin] — Several seen at Herman, but not apparently common.
2. **Turdus fusceacens**, *Steph.* WILSON'S THRUSH. [Veery] — Common at Brown's Valley.
3. **Mimus carolinensis**, *(Linn.) Gray.* CATBIRD. [Gray Catbird] — Common.
4. **Harporhynchus rufus**, *(Linn.) Cab.* BROWN THRUSH. [Brown Thrasher] — A few pairs seen at Brown's Valley. Nearly fledged young in nests, June 16.
5. **Troglodytes sedon parkmani**, *(Aud.) Coues.* HOUSE WREN. — Common. A nest with fresh eggs, in a broken limb of a dead tree, found near Herman, June 7.
6. **Telmatodytes palustris**, *(Wils.) Bd.* LONG-BILLED MARSH WREN. [Marsh Wren] — Common in marshes at Herman. Nests with fresh eggs taken, June 7.
7. **Cistothorus stellaris**, *(Licht.) Cab.* SHORT-BILLED MARSH WREN. [Sedge

Wren] — Common in dry marshes.

8. **Eremophila alpestris** *(Forst.) Boie.* SHORE LARK. [Horned Lark] — Common upon the dry prairie.

9. **Dendrœca æstiva**, *(Gm.) Bd.* YELLOW WARBLER — Abundant. Nests mostly just built or containing fresh eggs; but an occasional one had young.

10. **Dendrœca pinus**, *(Wils.) Bd.* PINE-CREEPING WARBLER. [Pine Warbler] — A single specimen, a female, was taken in the garden of a shanty on the prairie at Herman. A few small box-alders and poplars were all the trees within two miles or more. No nest was found, although these trees were very easily searched. It must have been only a straggler from the woods.

11. **Geothylpis trichas,** *(Linn.) Cab.* MARYLAND YELLOW-THROAT. [Common Yellowthroat] Common and nesting. Sets of fresh eggs taken, June 14 and 16.

12. **Hirundo horreorum,** *Barton.* BARN SWALLOW. — Found breeding in a few suitable localities. A nest containing young found in a low straw cattle-shed, June 17.

13. **Petrochelidon lunifrons.** *(Say) Scl.* CLIFF SWALLOW. — Common. A colony noticed at a dwelling-house in Herman.

14. **Cotyle riparis,** *(Linn.) Boie.* BANK SWALLOW. — A few pairs found breeding at one of the lakes near Herman.

15. **Progne purpurea,** *(Linn.)* PURPLE MARTIN. — Common, nesting in trees. Two nests in one tree were within ten inches of an occupied nest of *Colaptes auratus*.

16. **Vireo olivaceus,** *(Linn.) Vieill.* RED-EYED VIREO. — A few found in the heavy timber about Elbow Lake.

17. **Vireo gilvus,** *(Vieill.) Bp.* WARBLING VIREO. — Common. Fresh eggs taken, June 17.

18. **Chrysomitris tristis,** *(Linn.) Bp.* THISTLE-BIRD. [American Goldfinch] — A few pairs noted.

19. **Plectrophanes ornatus,** *(Towns.)* CHESTNUT-COLLARED BUNTING. [Chestnut-collared Longspur] — The birds of this species were first noted upon the prairie about a mile from Herman, where their circular flight and characteristic song attracted attention at once. They were found from here westward to the bluffs bordering Brown's Valley, but did not descend into it. They at all times preferred the prairie away from any moist places, and were not found near sloughs nor lakes. Mr. J.A. Allen's description of their habits, as quoted in Coues's "Birds of the Northwest," coincides so exactly with our experience that a detailed account is unnecessary. The variations of plumage he describes were also noticed. A single female was taken having a distinct chestnut collar, and many of the males had the black of the breast streaked with chestnut. They were evidently nesting, and a very prolonged search finally revealed a nest which contained young half grown. It was placed upon the ground in the short prairie-grass, and very difficult to find even when the locality was once known. It was sunk on a level with the ground, and was composed of fine dry grasses very similar to the nest of the Shore Lark [Horned Lark] *(E. alpestris)*. Internal diameter of nest 2½ inches; depth about 2. The female fluttered away exhibiting the utmost concern, and acting as if severely wounded.

20. **Passerculus savanna alaudinus,** *Bp.* WESTERN SAVANNA SPARROW. [Savannah Sparrow] — Common around sloughs and wet places.

21. **Poœcetes gramineus confinis.** *(Gm.) Bd.* WESTERN GRASS FINCH. [Vesper Sparrow] — Rather common.

22. **Coturniculus passerinus,** *(Wils.) Bp.* YELLOW-WINGED SPARROW. [Grasshopper Sparrow] — Common on high prairie.

23. **Melospiza meloda,** *(Wils.) Bd.* SONG SPARROW — Common. Nest and eggs nearly fresh taken at the Valley, June 17.

24. **Spizella pallida,** *(Sw.) Bp.* CLAY-COLORED SPARROW. — Common at Brown's Valley. They frequented specially a small area once cultivated on which there had sprung up a dense growth of low bushes and weeds.

25. **Calamospiza bicolor,** *(Towns.) Bp.* LARK BUNTING. — A single male of this species was shot on the railroad track a short distance above Herman, and although diligent search was made for its mate, she could not be found. On the way to Brown's Valley, on the top of the high coteaux which rise abruptly from the prairie and border the shores of Lake Traverse, we encountered these birds again, where a pair was taken, the female having eggs about to be laid. They were quite common all along the edge of these bluffs, especially where it was at all stony, and frequented the neighboring "break-

ings" on the prairie for food. They would follow the ploughs to pick up insects, etc. but were very wary and difficult of approach. In fact, it was almost impossible to shoot them. In the Valley none were seen.

26. **Euspiza americana,** *(Gm. Bp.* BLACK-THROATED BUNTING [Dickcissel] — Abundant everywhere, showing a decided partiality for the neighborhood of wheat-fields.

27. **Doliohonyx orysivorus,** *(Linn.) Sw.* BOBOLINK — Abundant. Nest and six fresh eggs taken, June 10.

28. **Melothrus ater,** *(Bocc.) Gray.* COW-BIRD. [Brown-headed Cowbird] — Common.

29. **Agelæus phœniceus,** *(Linn.) Vieill.* RED-WINGED BLACKBIRD. — Common.

30. **Xanthocephalus icterocephalus,** *(Bp.) Bd.* YELLOW-HEADED BLACKBIRD. — Very common. This and the above species were seen in considerable flocks at the Valley on June 17.

31. **Sturnella magna neglecta,** *(Aud.) Allen* WESTERN MEADOW LARK. — Common; young nearly fledged found in nest, June 10.

32. **Icterus spurius,** *(Linn.) Bp.* OR-CHARD ORIOLE. — Common. Fresh eggs taken at Valley, June 17.

33. **Quiscalus purpureus seneus,** *(Bartr.) Ridgway.* CROW BLACKBIRD. [Common Grackle] — Common. Fresh eggs of second brood taken, June 7.

34. **Tyrannus carolinensis,** *(L.) Bd.* KING-BIRD. [Eastern Kingbird] — Very abundant, especially at Brown's Valley, where over twenty-five nests were found on June 17, all containing full sets of perfectly fresh eggs. The nests here were often found in small bushes or on low limbs; one was not more than eighteen inches from the ground.

35. **Tyrannus verticalis,** *(Say)* ARKANSAS FLYCATCHER. [Western Kingird] — The first notice of this bird was near a small post-office called Pleasant Hill, on the borders of Lake Traverse. It was sitting on a fence near a group of oak-trees in a gully running down to the lake. It was shot, and proved to be a female. No more were seen until we searched the strip of woods along the Minnesota River at the Valley, where we discovered two pairs nesting in company with many of the preceding species. The nests were in elm-trees, and were placed on the top of the limb, but not so much exposed as the Kingbird's. They are somewhat larger than those of the latter bird, but the eggs are so similar that identification was only possible by seeing the female sitting upon the nest, which was no easy matter, for after they were once disturbed they would hover over the tree for a while, uttering a short note, and then one of the pair would disappear for some time, and only return when its mate had escorted it back, and then both would sit upon an adjacent limb for twenty minutes or more before the female would approach the nest. At this date (June 17) one of the nests contained four eggs perfectly fresh, and the other was not quite finished. The first was composed of stems of plants and dried grasses, and lined with finer grasses and a few bits of wool. The second was about the same, except the lining, which was composed entirely of feathers.

36. **Contopus virens,** *(Linn.) Cab.* WOOD PEWEE. [Eastern Wood Pewee] — Common.

37. **Empidonax trailli,** *(Aud.) Bd.* TRAILL'S FLYCATCHER. [Willow Flycatcher] — On June 19 a nest with three fresh eggs of this species was taken in a tangled growth of wild-plums and grape-vines. The nest was built about three feet from the ground, in the fork of a small plum-tree, and entirely hidden by the grape-vines which covered the tree. It was composed of dry grasses rather compactly woven and lined with finer pieces of the same. External diameter 3½ inches; depth 3. Internal diameter 2; depth about 1½ inches. The ground color of the eggs, which measure .75 of an inch in length by .56 in breadth, was a very rich cream-color before blowing, and afterward assumed a creamy-white appearance, having a circle of dots and spots of a reddish-brown color at the larger end. The female was shot.

38. **Empidonax minimus,** *Bd.* LEAST FLYCATCHER. — Common. Nest and four fresh eggs taken June 17.

39. **Chordiles virginianus** *(Gm.) Bp.* NIGHTHAWK. [Common Nighthawk] — Common. Eggs taken June 6 were nearly fresh. A specimen taken is not nearly as light-colored as many from the eastern part of the State.

40. **Chætura pelagica.** *(Linn.) Bd.* CHIM-NEY SWIFT. — A few seen in the timber at Elbow Lake.

41. **Ceryle alcyon,** *(Linn.) Boie.* BELTED KINGFISHER — Noticed at Big Lake, Grant

County, and several along the Minnesota River at Brown's Valley.

42. **Coccygus erythrophthalmus,** *(Wils.) Bp.* BLACK-BILLED CUCKOO. — Common. Nest and one fresh egg found, June 17, at Brown's Valley.

43. **Colaptes auratus,** *(Sw.)* GOLDEN-WINGED WOODPECKER. [Northern Flicker] — Common. Young well advanced, June 7.

44. **Bubo virginianus,** *(Gm.) Bp.* GREAT HORNED OWL. — In the timber at Elbow Lake an old bird and two young, fully fledged and flying around, were seen. A large nest in a big oak near by evidently belonged to them.

45. **Otus vulgaris wilsonianus,** *(Less.) Allen.* — LONG-EARED OWL — A single individual seen at Brown's Valley.

46. **Circus cyaneus hudsonicus,** *(Linn.) Schl.* MARSH HAWK [Northern Harrier] — Common all over the prairie.

47. **Buteo borealis,** *(Gm.) Vieill.* RED-TAILED HAWK. — Seen at both places.

48. **Buteo borealis krideri,** *Hoopes.* KRIDER'S BUZZARD. [Krider's Red-tailed Hawk] — On the 17th of June we took from one of the large cotton-wood trees on the border of the Minnesota River, in Brown's Valley, a young Hawk, not more than a week old, which we brought back to Minneapolis with us. The parent bird soared above the nest while the young bird was being taken, and her noticeably white appearance attracted our attention at once, and we judged her to be of this species. The growth of the young bird has gradually confirmed this idea, as it now, at the age of nearly three months, shows unmistakable evidences of being this light variety of the Red-Tailed Hawk. Its general appearance is white, including the back and tail. The forehead and broad superciliary lines are of a buffy tinge, as is also the whole breast, becoming pure white on the belly and under tail coverts. There are a few dark spots between the tibiæ and upon the flanks, but not nearly approaching the quantity on the young of *B. borealis* or *calurus*. This bird has become very tame, and is a great pet, allowing itself to be handled, and distinguishes persons.

49. **Buteo swainsoni,** *Bp.* SWAINSON'S HAWK. — A nest and three eggs of this Hawk were taken at Brown's Valley from one of the large cotton-wood trees before alluded to. It was situated in a fork against the trunk, about four feet from the ground, and was built of dry sticks and lined with a few green twigs from the cotton-wood. The eggs were very far advanced in incubation. Two of them are of a dirty white color, unmarked, while the third is covered with very fine spots and dashes of pale brown, thickest at the smallest end. The measurements are as follows: 2.25 × 1.75 (the spotted one); 2.22 × 1.68; 2.18 × 1.72. The nest measured, internal diameter 9½ inches, depth 2¾; external diameter 19 inches. A very fine specimen of this bird was shown us by Mr. J. N. Sanford, of Elbow Lake, at which place he had recently captured it.

50. **Buteo pennsylvanicus,** *(Wils.) Bp.* BROAD-WINGED HAWK. — A single individual seen at Herman.

51. **Cathartes aura,** *(Linn.) Ill.* TURKEY-BUZZARD [Turkey Vulture] — Several seen at Herman and Elbow Lake.

52. **Ectopistes migratoria,** *(Linn.) Sw.* WILD PIGEON. [Passenger Pigeon] — A single specimen seen at Brown's Valley.

53. **Zanædura carolinensis,** *(Linn.) Bp.* CAROLINA DOVE. [Mourning Dove] — Common.

54. **Pediœcetes phasianellus columbianus,** *(Ord) Cs.* SHARP-TAILED GROUSE. — The common Grouse of this region.

55. **Cupidonia cupido,** *(Linn.) Bd.* PINNATED GROUSE. [Greater Prairie-Chicken] — Several seen at Herman.

56. **Ægialitis vocifera,** *(Linn.) Bp.* KILLDEER PLOVER. [Killdeer] — Very common. Five nests found around the shore of a single lake.

57. **Steganopus wilsoni,** *(Sub.) Coues.* WILSON'S PHALAROPE. — Somewhat common at Herman and vicinity.

58. **Philohela minor,** *(Gm.) Gray.* WOODCOCK. [American Woodcock] — A single bird seen at Elbow Lake, June 18.

59. **Ereunetes pusillus,** *(Linn.) Cass.* SEMIPALMATED SANDPIPER. — A small flock of some five or six seen at Herman.

60. **Tringa maculata,** *Vieill.* PECTORAL SANDPIPER. — Rather common.

61. **Limosa fedoa,** *(Linn.) Ord.* GREAT MARBLED GODWIT. [Marbled Godwit] — Abundant, frequenting the shores of lakes and ponds, and low, moist prairie. Though breeding in great numbers the most diligent search failed to reveal its nest. The difference be-

tween the sexes, as before mentioned, was most noticeable. The measurements (in inches and hundredths) of a series of ten skins taken in the flesh are as follows: —

No.	Sex	Length	St. of Wing	Bill
2	♀	19.62	33.87	4.87
28	♀	19.37	32.75	4.62
32	♀	18.12	32.00	4.54
56	♀	19.25	32.75	5.06
68	♀	19.12	32.75	4.79
4	♂	17.62	31.25	3.96
30	♂	17.12	30.75	3.83
58	♂	16.75	31.50	3.66
60	♂	16.50	30.50	4.00
63	♂	17.00	31.50	3.75
Average,	♀	19.10	32.82	4.77
Average,	♂	17.00	31.10	3.84
Difference,		2.10	1.72	.93

62. **Totanus semipalmatus,** *(Gm.) Temm.* WILLET. — Common and breeding.

63. **Tringoides macularius,** *(Linn.) Gray.* SPOTTED SANDPIPER. — Several birds seen. Not at all common. *A. vocifera* is the most noticeable shore bird.

64. **Actiturus bartramius,** *(Wils.) Bp.* UPLAND PLOVER. [Upland Sandpiper] — Abundant, nesting often in wheat-fields. Eggs nearly incubated taken June 13.

65. **Ardea herodias,** *(Linn.)* GREAT BLUE HERON. — A few seen around the lakes in the vicinity of Herman. Probably nesting in the timber about Elbow Lake.

66. **Botaurus minor,** *(Gm.) Boie.* BITTERN. [American Bittern] — Common. Nest and one freshly laid egg found in a meadow, June 7.

67. **Grus americana,** *(Linn.) Temm.* WHOOPING CRANE. — A large white bird, seen in company with a pair of the following species, supposed to be this bird, as it is said by residents to breed here.

68. **Grus canadensis,** *(Linn.) Temm.* SAND-HILL (sic) CRANE — Common; several pairs seen on the low ground bordering the Mustinka River.

69. **Porzana carolina,** *(Linn.) Cab.* CAROLINA RAIL [Sora] — Common, several nests found, but without eggs.

70. **Fulica americana,** *Gm.* COOT. [American Coot] - Several seen around Herman in suitable sloughs.

71. **Anas boaschas,** *Linn.* MALLLARD. — Common. A nest found June 10, with eight freshly laid eggs, was in a bunch of dry grass in a meadow. Another, taken June 20, containing ten eggs in various stages of incubation, was placed in a thick clump of bulrushes in a slough where the water was several inches deep. The female was on the nest in each instance.

72. **Chaulelasmus streperus,** *Linn. Gray* GADWALL. — The common Duck of this locality, being quite as abundant as the Mallard, if not more numerous. A nest and eleven fresh eggs taken June 20, in a wheat-field some distance from water. On June 14, when the nest was first examined, the parent was absent, and the eggs were covered with a light layer of down and grass. On the 20th, the female was sitting, and was shot as she left the nest. The nest was simply a bowl-shaped cavity scratched in the ground, and lined with short dry grass and down. The internal diameter of the nest at the top, before it was disturbed, was 7 inches by about 3½ in depth. There was no concealing vegetation around it, the wheat being still very short. The eggs are rather broadly elliptical in outline, and a uniform cream-color. The average of the eleven eggs is 2.04 inches in length by 1.54 inches in breadth.

73. **Querquedula discors,** *(Linn.) Steph.* BLUE-WINGED TEAL. — Very common. Nest and twelve eggs, nearly fresh, taken in a meadow around a slough at Herman, June 20.

74. **Spatula clypeata,** *(Linn.) Boie* SHOVELER [Northern Shoveler] — Common.

75. **Aix sponsa,** *(Linn.) Boie.* WOOD DUCK. — Common. A nest with eggs found in a deep hollow in a tree at Elbow Lake, June 13.

76. **Fuligula ferina americana,** *(Eyt.) Coues.* RED-HEAD. (sic) — Several pairs seen around Herman.

77. **Puligula vallianeria,** *(Wils.) Steph.* CANVAS-BACK. (sic) — About a dozen pairs seen on a sand-bar in Mustinka River, near Lake Traverse, and also a pair at Elbow Lake.

78. **Pelecanus trachyrhynchus,** *Lath.* WHITE PELICAN. [American White Pelican] — As this trip was especially undertaken with a view of visiting a Pelican roost or camp in the vicinity of Herman, of which

vague rumors had reached us in Minneapolis, our disappointment was rather keen in not finding the birds there the present season. The fact that they were formerly there we fully substantiated. Their nesting-place was about fifteen miles north-westerly from Herman, on the border of a small stream, nearly choked with grass, called the Mustinka River. They were discovered about the last of June, 1878, and frequent visits were paid to them by the inhabitants of Herman, who considered it a nine-days wonder. A number of eggs had been taken, and the birds were otherwise greatly disturbed, so that this year they had deserted the locality. Although we spent a whole day in the search we were unable to find them. We saw several, however, at Brown's Valley and on Lake Traverse, but we were unable to discover their nesting-place.

79. **Graculus dilophus,** *(Sw.) Gray* DOUBLE-CRESTED CORMORANT. — Seen several times in Grant County. Probably breeds in the timber at Elbow Lake.

80. **?** (sic) **Larus delawarensis,** *Ord.* RING-BILLED GULL. — A single large Gull seen, supposed to be of this species.

81. **Larus franklini,** *Rich.* FRANKLIN'S ROSY GULL. [Franklin's Gull] — Common. This bird, in common with several others, has a habit of following the breaking-teams to pick up the insects and grubs turned up with the fresh soil. It is called by the farmers the Prairie Dove.

82. **Sterna forsteri,** *Nutt.* FORSTER'S TERN. Abundant in both counties. The condition of the birds shot showed plainly that they were nesting, but we were unable to find the eggs.

83. **Hydrochelidon lariformis,** *(Linn.) Coues.* BLACK TERN. — Abundant.

84. **Colymbus torquatus,** *Brunn.* LOON. [Common Loon] —Common.

85. **Podiceps cornutus,** *Lath.* HORNED GREBE. — Several Grebes seen in a pool near Herman appeared to be of this species.

86. **Podilymbus podiceps,** *(Linn.) Lawr.* PIED-BILLED GREBE. — Common; seemed to be just building, June 10.

The Saga of the Lake Vermilion Common Barn-Owls

Richard F. Ferguson

A most interesting chapter in what has been a lifelong amateur interest in birds is just coming to a successful ending with the conclusion that we **did** hear and see Common Barn-Owls in what was certainly an unexpected location.

Lake Vermilion lies roughly 80 bird-flight miles north of Duluth, Minnesota. That puts it rather close to the Canadian border. It is within the Superior National Forest and adjacent to the Boundary Waters Canoe Area. Our more exact location is St. Louis County, T62N R16W, about 12 miles west of Tower, on Pine Island.

At first look (and second and third!) it seems a most unlikely location in which to find a family of barn owls. Thus in our early attempts to identify the perpetrators of the unearthly screeches we were hearing, barn owls were certainly not up at the top of the list. They weren't even on the list.

"We" are summer residents of Lake Vermilion, my brother Bob Ferguson, sister Ruth Young and I, who, with our families, have frequented and loved the Arrowhead country ever since the family's first summer there in 1919. In that time, we have identified, for our own amusement, many birds and animals,

large and small, becoming more proficient as better bird books and manuals have become available. We are not card-carrying birders, but neither are we inexperienced.

So when we first heard these strange cries (on August 20, 1985, by Ruth's logbook), we were startled. In 64 years, we had never heard anything like them. They were hair-raising and spine-tingling sounds, fierce drawn-out screeches in the black of night. Most had an upward inflection at the end, while others turned downward. They sounded like queries and responses. They emanated from several directions and locations, alternately, each individual holding his position for some minutes and several cries. Thus we were able to be sure that there were certainly four and possibly five individuals involved. But try as we might, we were unable to get one in a spotlight.

For several weeks we tried to find out what was producing these unearthly sounds. We questioned long-time resident friends with no success, and no one lived close enough to be hearing them with us. We studied the available manuals — Peterson, Golden (our library in the woods is limited) — searching for answers. We researched owls, hawks, herons; we even considered animals — cats, among others. Because they always came in the dark of night, we felt that owls were the most likely. But the popular manuals don't describe such calls. Meanwhile, whatever they were kept alerting us on dark, quiet nights.

One night, the first week in September, Bob and Ruth spent several hours trampling around in the black of night with a tape recorder, accumulating perhaps 30 minutes of recorded sounds, but still not seeing a bird.

In the meantime, when I was back in Omaha, I listened to standard recordings of bird calls belonging to a close friend, a lifelong birder and Nebraska Ornithologists Union officer, and we researched his files. There were several birds whose calls were similar, but on about the third hunt we finally found one that truly matched. It was that of a Common Barn-Owl. But barn-owls are not supposed to occur in the area where we heard them. I also visited at the Raptor Recovery Center, between Lincoln and Omaha, but their birds weren't talking! I did learn much about barn-owls, however.

Finally, on the night of September 25th, Ruth and sister-in-law Joyce spotted a calling bird in the beam of a 6 volt utility spot light. It was perched on the top of a 25 foot flagpole at the outer end of a 40 foot dock. Ruth describes it: "...Jodie came out with a flashlight and as she came up to me, I saw that there was a 'blob' on top of our flagpole... she shone the light there, and there it was — an owl! ...It looked like it shrugged its shoulders and blinked, looking from left to right a few times and 'ducked' its head a bit, then made ready to fly. Jodie kept the light on it while it flew on past their dock. It had a whitish face, light chest, flew silently and erratically like a butterfly, with its legs hanging down... There were no 'ears'."

At that time neither was familiar with barn-owls, but based their identification on an immediate search of the bird books, pictures and descriptions. They have since viewed captive barn-owls and confirmed their identification.

In October 1985, I collected written descriptions and narratives from Bob and Ruth, added my own and submitted them to the Minnesota Ornithologists Union. I think it is fair to say that the submittal was received with interest, but some skepticism. (barn-owls aren't supposed to occur up there!) The first-review was somewhat disappointing, but not final. Good questions were asked, a copy of the taped sounds was furnished on request. Still there were doubts.

But the investigation continued. Nobody gave up on it. And now we have a conclusion.

One piece of information important to the final determination was the habitat. Although the area is within the Superior National Forest, it is not really virgin forest. Most of it was heavily logged around the turn of the century. Thus some of it is second growth, and more open than might be expected. As I understand the terms, it is largely part boreal forest, part pine forest. There are some bogs and muskeg. The geology is heterogeneous - a jumble of granites and other intrusive rocks, various metamorphosed sedimentaries, iron ore, glacial moraines. It is at the southwestern end of the Canadian Shield. Rock outcrops provide open spaces now and then. Fires have burned out pockets that have become little meadows. There are man-made clearings for cottages, REA distribution lines and the like.

And blueberry patches!

So while it may not be a typical grassland microtine habitat, there are the open spaces that provide habitat for small rodents, notably deer mice (what a mess they can make in a cottage over a winter!), least and eastern chipmunks, small red squirrels, tiny shrews and voles. Many times I have seen hawks and ravens swoop down and take some small rodent. Great Horned and Barred Owls are not often seen, but have been regularly heard over the years. So certainly food appropriate for a Common Barn-Owl family is available.

Another telling point concerned the cries heard. During these episodes, only these screeches were heard. It seems certain that the calls were feeding calls of the fledglings and responses of the parents. This is typical of barn owls. Feeding calls of Great Horned Owls fledglings are similar. We never heard any hooting during any of these episodes.

Further, Great Horned Owl families are rarely if ever consist of more than two young, and members of two families are incompatible and would not travel or feed together. Thus the four certain and five possible individuals we identified could not have been of that species.

Finally, copies of the taped cries were sent to several experts, Some were expert in barn owls conversations, some in conversations of other owls. Thus the experts verified the findings with their opinions that the taped sounds and behavior were consistent with barn-owls characteristics but not consistent with calls or behavior of other owls.

So the experts agreed — we did have a family of Common Barn-Owls feeding (and nesting) in our vicinity on Pine Island!

A professional engineer myself, I can only admire the thorough and systematic manner in which the authorities pursued the verification of our claims. While this takes time, it is reassuring that such care is taken in analyzing unusual cases to insure that no mistakes are made. I thank them for their care and consideration.

The final letter of verification is quoted:

Dear Bob, (Janssen)

I am not surprised by the misinformation that you have received regarding barn owl vocalizations. There are very few individuals in North America that are highly familiar with the wide variety of calls that barn owls make, and good commercial recordings with correct behavioral descriptions generally are unavailable.

Bruce McLean and I have conducted extensive bioacoustic research on barn owl vocalizations, recording thousands of calls and archiving hundreds of them at John Carroll University. To my knowledge these represent the only extensive research in North America on barn owl vocalizations. We have recorded dozens of examples of barn owls calls that are just like those on the Lake Vermilion recording. Individuals suggesting that barn owls do not make such calls simply are not familiar with all barn owl vocalizations. These types of calls are a major portion of the repertoire of recently fledged barn owls and adults.

Since 1980, Paul Hegdal and I have greatly expanded and clarified information on this species through extensive use of radiotelemetry, capture techniques, and technologies to study owls at night. Most studies of barn owls have included only pellet analysis and some behavioral observations at nest sites. The Lake Vermilion calls generally are not heard at the immediate nest site, so few people have ever associated these, and several other calls, with barn owls.

From the start, the only other bird that we were concerned about was the Great Horned Owl, since it can make "yank" (shriek) calls. I have compared our recordings of such calls to the Lake Vermilion calls, and I believe that they sound different. Steve Loch in Minnesota, although unfamiliar with barn owl vocalizations, believes that the calls are similiar to, but not quite consistent with, young Great Horned Owls. Additionally, the presence of at least four owls consistently calling for about a month (about 20 Aug. - 25 Sept.), and with no hooting calls given, is not consistent with Great Horned Owls (but highly consistent with recently fledged barn owls).

There is no point of debate over whether or not the Lake Vermilion calls are consistent with those given by barn owls; they are absolutely consistent. As I have expressed in previous letters, only sonagraph work could further test the claim that these calls were made by barn owls. Until then, the claim by the original observers that the Lake Vermilion calls were made by barn owls cannot be refuted. All evidence provided to date supports that assertion as well as the presence of nest-

ing barn owls in that locality.
Sincerely,
Bruce A. Colvin, Ph.D.
Dept. of Biological Sciences
Bowling Green State University
Bowling Green, Ohio 43403

Incidentally, the summer of 1986 provided no repeat performances. Instead, we had a brand new Osprey nest with young, not more than a hundred yards from my rebuilt cottage. Mama Osprey gave us spectacular aerial battles with Bald Eagles all summer. It might be said that she was "owley" about her neighbors. I am sure there could have been no nesting owls in the vicinity this year!

I should like to express appreciation to many individuals for their consideration. They include Robert Janssen who never gave up on us, Dr. Harrison Tordoff of the Bell Museum, Dr. Bruce Colvin of Bowling Green State University, Paul Hegdal of the Denver Wildlife Research Center, Dr. E. Bruce McLean of John Carroll University, Steve Loch of Minnesota, Betsy Hancock of the Nebraska Raptor Recovery Center, R. G. Cortelyou of the Nebraska Ornithologists Union, and probably others whose names I don't know. They were all courteous and helpful. Our thanks to all. **2115 S. 106th St., Omaha, NE 68124**

Editors Note: As the title of this article indicates, this observation of a barn-owl family was truly a saga, in many ways. The whole episode started in early 1986 when Mr. Ferguson submitted the observation of the barn-owls at Lake Vermilion to me. I immediately sent the data to the Minnesota Ornithological Records Committee (M.O.R.C.). The Committee was divided on the record so I decided to search for a barn-owls expert who could interpret this tape recording and the written information. Dr. Harrison (Bud) Tordoff and I put our heads together and decided that Bruce Colvin of Bowling Green University was the most knowledgeable person on barn-owls in the United States. The tape and data were sent by Bud Tordoff to Dr. Colvin, and on April 23, 1986, he wrote back to us stating the tape was worth pursuing as a barn-owl, but he needed more time and information. During the summer of 1986 Dr. Colvin forwarded the tape to a number of other people who were familiar with the vocalizations of other owls species. Through this process, claims of alternative species could be refuted (or accepted), and the claim that the calls were given by barn owls tested. It was not until December 22, 1986, that I received the following letter from Dr. Colvin.

Dear Bob, (Janssen)

I have been unable to get the tape recording through an audiospectograph. My contacts still intend to do so, but I have no control over when that might occur. Therefore, I will give you my full opinion on the recording at this time.

The calls are absolutely consistent with those given by fledgling barn owls. Additional information provided by R. Ferguson includes the presence of at least four owls, persistent calling for almost a month (approx. 20 August - 25 September), and an identification of barn owl based on a brief observation. Steve Loch in Minnesota cannot associate these calls with any other owl, and neither can Paul Hegdal or me.

Based on this information, it is my opinion that:

(1) all or most of the calls recorded were given by fledgling barn owls most probably between 11 and 15 weeks of age, some calls may have been given by adults;

(2) there was a barn owl nest in that locale, probably within ½ mile of where the calls most commonly were heard.

I am confident in the identification and also believe that adequate evidence has been presented to indicate nesting barn owls. Paul Hegdal of the Denver Wildlife Research Center concurs with me on these points. I assume that you will notify Mr. Ferguson.

At least one member of M.O.R.C. did not agree with this decision and requested that the tape and data be sent to Jon Winter of Santa Rosa, California, a known owl expert. To make a long story short, Jon declined to make a conclusive statement on the tape. He sent the tape and data to Carl D. Marti of Weber State College in Ogden, Utah, a person who has worked with barn-owls for many years. His opinion was that the recorded calls were definitely not those of a barn-owl. He stated that the description could fit a barn-owl, but he felt the area was a very unlikely place for barn-owls to occur. Dr. Marti concluded that the calls sounded "much like those of juvenile Great Horned Owls." He ended

the letter with the following, rather contradictory statement — "I suspect that they were juveniles of some owl at any rate." Dr. Marti's reply was most disturbing, thus on April 3, 1987, I decided to send Dr. Bruce Colvin a copy of Dr. Marti's letter. Dr. Colvin's reply of 2 May 1987 printed above, is the final piece of information in this whole saga. In my opinion Dr. Bruce Colvin's answer is the most credible and professional and has convinced me that there was a family of Common Barn-Owls in northern St. Louis County in August 1985.

The Fall Season
August 1 to November 30, 1986

Don Bolduc, Steve Carlson, Oscar Johnson and Dick Ruhme

Sixty-one contributors reported a total of 290 species; 281 regular, 4 casual and 5 accidentals.

Alternate clouds, rain and sunshine, very little of the sunshine, were produced by unusual weather patterns from August first to mid-October. Consequently the temperatures were well below normal and precipitation much above normal. This September was the wettest since 1942. Early snow in the north in October greatly contrasts with the very warm spell for the middle of the month. Oc-

tober 19th had the second record high for the state.

We were back to near normal in November when cold weather broke old records and snow fell again. During the last few days of the month, the temperatures again went 10° to 15° above normal and the snow disappeared.

The warbler migration was well on its way by the first part of August. Many record breaking early dates were reported for many species. The East Central peak was August 28 and 29 with 20 and 21 species respectively.

Noteworthy were southward migrations of Gray Jays and Boreal Chickadees. Winter finches were noticed in the northern part of the state at one time, but the expected mass movement south failed to materialize.

Some interesting sightings during the season were: Pacific Loon, Ramsey County; Eared Grebe, Minneapolis; Tricolored Heron, Marshall County; Eurasian Wigeon, Wood Lake; Oldsquaw, Barrow's Goldeneye and Black Scoter, Minneapolis; Mississippi Kite, Fillmore County; Rufous Hummingbird, Wabasha County; Clark's Nutcracker, Mower County; Rock Wren and a McCown's Longspur, Duluth.

PACIFIC LOON

Lake Vadnais, Ramsey 10/10-28 KB, m.ob. (***The Loon*** 59:50-51).

Common Loon

Late north 11/6 Kittson KL, 11/22 Duluth, 11/27 Wadena AB; late south 10/28 Freeborn NHo, 11/7 Ramsey KB, 11/30 Hennepin RG.

Pied-billed Grebe

Late north 10/25 Mahnomen RJ, 10/26 Kanabec AB, 10/29 Wilkin GAM; late south 11/15 Wabasha, Winona AP, 11/20 Ramsey KB, 11/30 Hennepin RG.

Horned Grebe

Late north 10/18 Lake SW/MS, 10/26 Cook WP, St. Louis KB, BE, 11/2 Otter Tail SDM; late south 10/11 Pope RG, 10/25 Stevens AB, 11/30 Hennepin AB, SC, OJ.

Red-necked Grebe

Late north 11/9 Crow Wing AB, 11/21 Lake SS, SW/MS, 11/22 St. Louis BL; south 8/28 Anoka SC, 9/19 Nicollet JF, 10/14 Ramsey KB.

Eared Grebe

Late north 9/4 Polk RJ, 9/28 Clay LCF, 10/25 Grant AB; late south 9/1 Lac Qui Parle GS, **11/18-29 Lake Calhoun, Hennepin** SC, GP, m.ob.

Western Grebe

Late north 10/22 Otter Tail GAM, 11/2 Todd RG (10), 11/6 Becker BK; late south 10/25 Stearns NH, 10/31 Nicollet JF, 11/2 Lac Qui Parle AB.

American White Pelican

Late north 9/6 **Duluth** fide KE, 10/8 Koochiching GM, 10/24 Lake of the Woods RG, RJ; late south 11/8 Wright ES, **11/16** Carver RG; peak 8/12 Freeborn NHo (1500).

Double-crested Cormorant

Late north 11/2 Otter Tail SDM, Wilkin GAM, **11/7** Lake of the Woods KL; late south **11/25** Hennepin SC, Wabasha WDM, **11/30** Dakota TTu; peak 9/7 Freeborn NHo (200).

American Bittern

Late north 9/13 Carlton AB, 9/23 Lake MH, St. Louis SS; late south 8/29 Brown JS, 10/17 Hennepin ES.

Least Bittern

Reported 8/2 Hennepin SC, TTu, 9/1 Freeborn NHo, 9/19 Nicollet JF.

Great Blue Heron

Late north 11/15 St. Louis fide KE, 11/17 Cook KMH, **11/22** Lake BL; late south 11/28 Cottonwood E. Duerksen, Houston EMF, McLeod RJ, 11/29 Martin KL, 11/30 Mower AB, OJ.

Great Egret

Late north 9/1 **Duluth** fide KE, Becker BK, 10/5 Otter Tail SDM; late south 10/23 Ramsey KB, 10/26 Wright ES, 11/1 Dakota SC.BL.GP.

Snowy Egret

8/12 Marshall ANWR, 8/23-29 Otter Tail RJ, SDM.

TRICOLORED HERON

8/24 Agassiz National Wildlife Refuge Marshall, m.ob. (***The Loon*** 59.49).

Snowy Egret, August 24, 1986, near Fergus Falls, Ottertail County. Photo by Warren Nelson.

Green-backed Heron

Late north 9/15 St. Louis TM, **10/1** Marshall ANWR, **10/5** Itasca AP; late south 10/3 Nicollet JF, 10/5 Anoka SC, GP, 10/6 Ramsey KB.

Black-crowned Night-Heron

Late north 8/27 Marshall AB; late south 10/5 Nicollet JF, 10/15 Washington BL, DS.

Yellow-crowned Night-Heron

Reported 8/3 Hennepin SC.

Tundra Swan

Early north **8/29** Marshall ANWR; early south **8/20-9/5** Stearns NH; late north 11/9 Otter Tail SDM, 11/10 Hubbard JL; late south 11/25 Chippewa RG, RJ, 11/30 Wabasha, Winona AB; peak 11/15 Wabasha, Winona, Houston KE (10,000+).

Greater White-fronted Goose

9/9 Marshall ANWR, **9/28** Cottonwood BF, 10/5 Polk DS, 10/17 Marshall ANWR.

Snow Goose

Early north **9/7** Cook SL, 9/14 Duluth fide KE; early south **8/6** Hennepin JP/AM, 9/15 Anoka GP; late north 11/22 Clay MMo, 11/25 Pine BE; late south 11/30 Hennepin AB, OJ, Ramsey DS.

Canada Goose

Reported from 17 counties north, 24 counties south.

Wood Duck

Late north 10/11 Aitkin WN, 10/30 Otter Tail SDM, 11/9 Cook KMH; late south 11/21 Wright DO/SS, 11/24 Mower RRK, 11/29 Hennepin AB.

Green-winged Teal

Late north 10/23 Koochiching RJ, 10/ Kanabec AB, 10/28 Cook KMH: Late south 11/12 Olmsted BE, 11/17 Nicollet JF, 11/30 Winona AB, OJ. Early south 9/11 Mower RRK, 10/5 Olmsted BE, 10/9 Ramsey KB; peak 9/23 Lake MH (500).

American Black Duck

Early south 9/11 Mower RRK, 10/5 Olmsted B E, 10/9 Ramsey KB; peak 9/23 Lake MH (500).

Mallard
Reported from 16 counties north, 22 counties south.

Northern Pintail
Late north 8/27 Marshall ANWR, **11/28** Duluth KE; late south 11/9 Olmsted BE, 11/15 Scott ES, Winona AP.

Blue-winged Teal
Late north 10/4 Cook SL, 10/13 Aitkin WN, 10/16 Clay LCF; late south 10/26 Anoka DS, 11/1 Hennepin TTu, 11/3 Wabasha WDM.

Northern Shoveler
Late north 10/16 Duluth AP, 10/25 Grant AB, 10/30 Otter Tail SDM; late south 11/13 Stearns NH, 11/27 Dakota TTu, 11/29 Hennepin SC, RJ.

Gadwall
Late north 8/27 Marshall AB, 10/30 Otter Tail SDM; late south Wabasha, Winona AP, 11/29 Hennepin PP, 11/30 Houston FL.

EURASIAN WIGEON
10/4-11/3 Wood Lake Hennepin, m.ob.

American Wigeon
Late north 9/16 St. Louis SS, 10/8 Cook KMH, 10/25 Grant AB; late south 11/16 Houston Wabasha AP, 11/27 Dakota TTu, 11/30 Hennepin AB, SC, RJ, OJ.

Canvasback
Late north 10/25 Grant AB; late south 11/26 Waseca JF, 11/20 Houston FL, Wabasha WDM.

Redhead
Late north 10/25 Grant AB, Red Lake RJ, 11/9 Cook KMH, WP, **11/30** Otter Tail SDM; late south 11/14 Ramsey KB, 11/16 Scott TTu, 11/29 Hennepin AB, SC, PP.

Ring-necked Duck
Late north 10/11 Aitkin WN, Lake SW/MS, 10/27 Cook KMH, 11/30 Otter Tail SDM; late south 11/26 Waseca JF, Hennepin SC, RJ, Ramsey DS.

Greater Scaup
Reported 10/15 Winona AP, 11/18-30 Hennepin SC, RG, GP.

Lesser Scaup
Late north 11/15 Crow Wing WN, 11/19

Harlequin Duck, October 18, 1986, Grand Marais, Cook County. Photo by Chuck Buer.

Cook KMH, 11/30 Otter Tail SDM; late south 11/28 Lac Qui Parle FE, 11/30 Hennepin m.ob., Ramsey DS.

Harlequin Duck
10/18-11/2 Cook m.ob., 11/18 **Mower** RRK m.ob.

Oldsquaw
Reported 10/26 Cook BE, **10/29** Freeborn NHo, 11/10-30 Lake of the Isles and Lake Calhoun **Hennepin** SC, m.ob., 11/15 Crow Wing, Mille Lacs, BL, 11/20 **Ramsey** JP/AM.

Black Scoter
Reported 10/17-11/3 Cook m.ob., Mille Lacs 10/21-11/15 ES, m.ob., **10/27** Lake Harriet **Hennepin** m. obs., 10/28 Aitkin SC, 11/2 Grant RG, 11/15 Crow Wing BL, WN.

Surf Scoter
9/25 Cook P. Backstrom, B. Penning, 10/18-25 Pine RG, BE, 11/2 Grant RG.

White-winged Scoter
Reported **8/21** Beltrami BE, **9/25**-11/22 Cook P. Backstrom, R. Penning et al, 10/13 Lake Calhoun **Hennepin** SC, 10/25 Todd KL, 10/26 Carlton KL, 11/2 Stearsn DO/SS.

BARROW'S GOLDENEYE
11/29 Lake Calhoun Hennepin SC, GP (***The Loon*** 59:55-56).

Common Goldeneye
Early south 10/15 Anoka SC, Hennepin GP, 10/21 Washington TBB.

Bufflehead
Early north 10/4 Cook SL, Polk DS; early south **10/5** Ramsey KB, 10/15 Faribault NHo; late north 11/19 Cook KMH, 11/21 Duluth KE; late south 11/26 Waseca JF, 11.30 HEnnepin AB, SC, OJ.

Hooded Merganser
Late north 11/11 Becker BK, 11/16 Otter Tail SDM, 11/22 Beltrami TK; late south 11/30 Houston FL, Olmsted JEB, Ramsey DS.

Common Merganser
Early south **10/30** Ramsey KB, **11/1** Dakota SC, GP, **11/2** Lac Qui Parle AB; peak 11/22 Wabasha AP (2000+).

Red-breasted Merganser
Late north (not including Lake Superior) 10/15 Crow Wing WN, Mille Lacs RJ; early south 11/1 Hennepin SC, GP, 11/2 Mower RRK; Late south 11/30 Hennepin AB, SC, RG.

Ruddy Duck
Late north 10/11 Aitkin SC, WN, 10/25 Grant AB, 10/29 Wilkin GAM; late south 11/10 Olmsted JEB, 11/29 Hennepin AB, SC 11/30 Ramsey DS.

Turkey Vulture
Duluth Hawk Ridge count: 249 (1985:780); late north 10/11 Aitkin SC, 10/14 Cook KMH, 11/16 Duluth; late south 10/1 Olmsted BE, 10/8 Houston EMF, 10/14 Fillmore AP.

Osprey
Duluth Hawk Ridge count: 145 (1985:146); late north 10/11 Aitkin SC, WN, 10/18 Carlton RG, 10/22 Lake SW/MS; late south 10/19 Hennepin AB, 10/31 Washington DS, 11/21 Le Sueur HJF.

MISSISSIPPI KITE
Reported 8/19 Fillmore AP, (***The Loon*** 58:192-194).

Bald Eagle
Duluth Hawk Ridge count: 304 (1985: 159); late north 11/21 Cook SL, WP, 11/24 Hubbard HJF, 11/29 St. Louis CO; peak 11/30 Wabasha, Winona, Goodhue OJ (123).

Northern Harrier
Duluth Hawk Ridge count: 400 (1985: 606), late north 11/11 Otter Tail SDM, **11/16** Hawk Ridge, **11/29** Aitkin WN.

Sharp-shinned Hawk
Duluth Hawk Ridge count: 11,595 (1985: 11.474); late north 10/25 Beltrami, 11/6 Clay MMo, 11/14 Hawk Ridge; late south 11/25 Houston EMF, 11/27 Brown JS, Dakota TTu.

Cooper's Hawk
Duluth Hawk Ridge count: 88, 17 counted 9/6, a record daily high, (1985: 68); late north 9/276 Wadena AB, 10/18 Lake RJ, 11/3 Hawk Ridge; late south 9/28 Hennepin AB, 10/16 Ramsey KB, **11/30** Olmsted JEB.

Northern Goshawk
Duluth Hawk Ridge count: 354 (1985: 670); Early south 9/22 Fillmore JM, 9/27 Houston FL, 9/29 Olmsted BE.

Red-shouldered Hawk
Late north 9/18 Itasca T. Lamey, **10/20** Duluth KE, **11/10** Hawk Ridge; late south 10/16 Ramsey KB, 11/2 Washington DS, 11/19 Winona RG.

Broad-winged Hawk
Duluth Hawk Ridge count: 18,290 (1985: 24,819) down sharply, peak of 16,500 on 9/18; late north 9/21 Itasca AB, 9/27 Clay LCF, 10/5 Hawk Ridge; late south 9/29 Houston EMF, 10/1 Freeborn NHo, 10/2 Washington DS.

Swainson's Hawk
Late north 8/17 Clay TM; late south 9/23 Fillmore AP, 9/25 Mower RRK, 10/2 Sherburne DO/SS.

Red-tailed Hawk
Duluth Hawk Ridge count: 2609, lowest since 1972 (1985: 4,259); reported from 13 counties north, 21 counties south.

Rough-legged Hawk
Duluth Hawk Ridge count: 495 (1985:91), record high of 34 banded; early north **9/7** Clay LCF, 10/5 Hawk Ridge, 10/6 Cook KMH; early south 9/20 Lyon HK, 9/27 Wabasha TM, 10/1 Pipestone HK.

Golden Eagle
Duluth Hawk Ridge count: 31, second-highest total, (1985: 20); early north 10/3 Hawk Ridge, 10/6 Lake MH; early south Mower RRK, 10/16 Ramsey KB.

American Kestrel
Duluth Hawk Ridge count: 927, second-highest total (1985: 666); late north 10/22 Hawk Ridge, 11/19 Aitkin WN, **11/28** Wadena AB.

Merlin
Duluth Hawk Ridge count: 115, second-highest total (1985: 122); early south **8/13** Wright ES, 9/13 Blue Earth RRK; late north 11/9 Cook KMH, 11/21 Otter Tail SDM; late south 10/17 Olmsted AP, 10/19 Hennepin GP.

Peregrine Falcon
Duluth Hawk Ridge count: 21 (1985: 27); late north 10/19 Cook TM, late south 10/6 Sherburne DO/SS, 10/13 Hennepin SC, **11/22** Ramsey TTu.

Prairie Falcon
Reported 10/16-**11/16** Wilkin SDM, TTU, 11/6 Grant SDM.

Gray Partridge
Reported from two counties north, 16 counties south.

Ring-necked Pheasant
Reported from nine north and 21 south counties.

Spruce Grouse
All reports: Lake (5+) SW/MS, 10/3 Lake MH, 10/20 Cook (3) KMH, 10/24 Koochiching RG, RJ, 10/28 St. LouisSS.

Ruffed Grouse
Reported from 16 north and six south counties.

Greater Prairie-Chicken
Reported from Cass, Clay and Wilkin counties.

Sharp-tailed Grouse
Reported from Aitkin, Clearwater, Koochiching, Marshall and St. Louis counties.

Wild Turkey
All reports: 8/3-11/20 Houston (max. 11) EMF, JM, 8/31 Fillmore AP.

Yellow Rail
8/2 Aitkin WN.

Virginia Rail
All reports: 8/2 Aitkin WN, 8/7 Hennepin PP, 8/24-27 Marshall RJ, AB, 9/7 Dakota TT, 10/14 Fillmore AP.

Sora
Late north 8/17 Isanti AB, 8/27 Marshall AB, 9/23 Lake MH; late south 9/13 Scott RJ, 9/18 Hennepin SC, 9/25 Freeborn NHo.

American Coot
Late north 10/25 Grant AB, 10/29 Wilkin GAM, 11/3 Cook KMH; late south 11/23 Lyon HK, 11/26 Waseca JF, 11/30 Hennepin m. obs.; peak 10/28 Lac Qui Parle (30,000) FE.

Sandhill Crane
Reported from 13 counties. Late north 10/7 Norman (1000) BK, 10/25 Wilkin AB, 11/4 Clay MM; late south 10/23 Blue Earth MF, 11/8 Olmsted and Winona RJ, AP; peak 9/15 Marshall (2000) ANWR.

Black-bellied Plover
All reports: 8/25 Dakota TT, 8/26 Polk AB, 9/8-10/19 St. Louis m.ob., 9/27 Cook KMH, 10/18 Lake m.ob.

Lesser Golden-Plover
Early south 8/25 Dakota TT, 9/1 Anoka SC, GP; early north 9/9 St. Louis SS, 9/13 Cook KMH; late south 9/26 Hennepin OJ, 10/1 Le Sueur RJ; late north **11/5** Otter Tail SDM, **11/9** Duluth J. Green.

Semipalmated Plover
Late north 9/29 Lake KL, **10/16-19** Duluth m.ob.; late south 9/2 Hennepin OJ, 9/3 Nicollet and Waseca JF.

Killdeer
Late north 9/26 Wadena AB, 10/8 Clay LCF, 10/29 Wilklin GAM; late south 11/11 Murray ND, 11/23 Lyon HK, **11/27** Houston FL.

Greater Yellowlegs
Late north 10/11 St. Louis SS, 10/13 Marshall TK, 10/25 Grant AB; late south 10/25 Stevens AB and Isanti DS, 11/3 Wabasha WDM, 11/8 Steele RJ.

Lesser Yellowlegs
Late north 10/20 Pine AP, **10/25-29** Wilkin AB, GAM; late south 10/2 Le Sueur RJ, 10/25 Stevens AB, 11/16 Lincoln HK.

Solitary Sandpiper
Late north 9/4 Red Lake RJ, 9/13 Duluth TBB, 9/20 Lake SW/MS; late south 8/17 Isanti AB, 9/1 Freeborn NHo, 9/29 Olmsted BE.

Willet
9/6 Wright (1 found dead) ES.

Spotted Sandpiper
Late north 9/13 Clay LCF, 9/15 Cook WP, 9/20 Duluth BE; late south 9/20 Olmsted PP, 9/26 Freeborn NHo, 10/5 Brown JS.

Upland Sandpiper
All reports: 8/2 Wilkin BL, 8/7 Dakota TT, 8/19 Mower RRK.

Whimbrel
All reports: 9/4-27 Park Point, Duluth m.ob., 9/13-23 North Shore, Duluth m.ob.

Hudsonian Godwit
9/10 Beaver Bay, **Lake Co.** SW/MS.

Whimbrel, September 13, 1986, Duluth, St. Louis County. Photo by Priscilla Dean.

Marbled Godwit
8/12 Dakota **(150)** JP/AM, 8/22 **Duluth (25)** M. Hendrickson.

Ruddy Turnstone
All reports: 8/4 Wilkin GAM, 8/25 Dakota TT, 8/19-27 Cook WP, KMH, 9/20-21 Duluth OJ, BE and 10/12 KB.

Red Knot
8/25 Dakota TT, 9/6-21 Duluth m.ob.

Sanderling
All reports: 8/2 Nobles RG, 8/26-9/4 Polk AB, RJ, 9/6 Blue Earth MF, 9/13-10/17 Duluth m.ob., 10/17 Cook KMH, 10/9 Hennepin ES, **10/29** Lyon HK.

Semipalmated Sandpiper
Early north 8/26 Polk AB, 9/13 Cook KMH; early south 8/1 Anoka Sc, GP, 8/13 Mower RRK; late north **10/19** Duluth KE, RJ; late south 9/7 Mower AP, 10/20 Lincoln HK.

Western Sandpiper
8/26 Polk AB, 9/13 Nicollet RJ.

Least Sandpiper
Early north 8/2 Cook WP, 8/23 Lake of the Woods RJ; early south 8/1 Hennepin SC and Anoka SC, GP, 8/2 Dakota TT; late north 8/31 Polk AB, 9/7 Cook KMH; late south 9/27 Hennepin DZ, **10/29** Lyon HK.

White-rumped Sandpiper
Many more reports than usual: 8/10 St. Louis Co. 8/27 Marshall AB, 10/9-20 **Duluth** (max. 7) m.ob., 10/18-23 Pine RG, RJ, 10/18-23 Lake m.ob., **11/1** Cook KE, **11/5 Duluth** D. Kienholz.

Baird's Sandpiper
Early north 8/27 Marshall AB, 8/30 St. Louis SS; early south 8/9 Anoka KB, SC, 8/25 Dakota TT; late north 9/15 Duluth TM, Cook WP and Lake SW/MS, 10/16 Otter Tail TT; late south 9/15 Hennepin SC, 9/20 Watonwan RJ.

Pectoral Sandpiper
Late north 10/23 Pine RJ, 10/24 Grant SDM, 10/25 Wilkin AB; late south 10/9 Hennepin ES, 10/12 Chisago KB, **11/16** Lincoln HK.

Dunlin
All reports: 9/2 Cook KMH, 10/16-31 Duluth m.ob., **11/5** Duluth KE, KL, 10/18-23 Pine RG, RJ, 10/29 Lyon HK.

Stilt Sandpiper
Early north 8/2 Cook WP, 8/26 Polk AB; early south 8/1 Anoka SC, GP, 8/23 Nicollet JCF; late north 9/8 Cook KMH, 9/21 Duluth BE; late south 9/5 Anoka SC, ES and Nicollet JCF, 9/13 Martin RJ.

Buff-breasted Sandpiper
All reports: 8/3 **Aitkin** (4) WN, 8/7 Dakota (2) TT, 8/23 Lake of the Woods (2) RJ, 8/28-9/13 Duluth KE, **10/1** Duluth D. Kienholz, 8/29-9/15 Cook KMH, WP.

Short-billed Dowitcher
All reports: Marshall ANWR, 8/26-30 Polk AB, 9/1 Chippewa GS, 9/13 Watonwan RJ, 9/15-**10/9** Duluth m.ob.

Long-billed Dowitcher
9/6 **Duluth** D. Kienholz, 9/27 Nicollet JF.

Common Snipe
Late north 10/26 Hubbard RJ, 11/1 Aitkin WN and Lake SW/MS, **11/9** Duluth K. Camburn; late south 11/1 Stearns DO/SS, 11/2 Chippewa AB, 11/4 Le Sueur EK.

American Woodcock
Late north 10/19 Cook SL, 10/23 Pine RJ, 10/26 Kanabec AB, DB; late south 10/31 Washington DS, 11/1 Yellow Medicine DZ, 11/2 Cottonwood (1 found dead) BF.

Wilson's Phalarope
All reports: 8/15-9/1 Anoka m.ob., 8/17 Clay LCF, 8/31 Polk AB, 9/12 **Duluth** DB.

Red-necked Phalarope
All reports: 8/19 Kanabec RG, 8/26-31 Polk AB, 8/28 Cook KMH, 8/30 Sibley RG, 8/30-9/17 **Duluth** (4) m.ob., 8/31 Dakota TT, 9/1-5 Anoka (max. 6) m.ob., 9/7 Mower (2) AP, 9/13 Le Sueur (3) RJ.

Parasitic Jaeger
8/2 (1 ad., D. Johnson) - 9/26 Duluth (max. 4 on 9/11) m.ob.

Jaeger, sp.
8/20 and 9/10 Duluth (2) KE.

Franklin's Gull
Late north 10/6 Polk DS, 10/17 Wilkin TT, 10/25 Grant AB; late south 10/1 Faribault (10,000) JF and Hennepin OJ, 10/2 Waseca (1000s) RJ, 10/25 Pope AB.

Bonaparte's Gull
Early north 8/2 Mille Lacs JP/AM, 8/27 Aitkin SC; early south 10/1 Hennepin OJ, 10/16 Ramsey AP; late north 11/8 Crow Wing WN, 11/9 Mille Lacs AB; late south 11/1 Lac Qui Parle AB, **11/28** Goodhue BL.

Ring-billed Gull
Late north 11/8 Itasca KL and Crow Wing WN, 11/11 Becker BK.

Herring Gull
Reported from seven north and nine south counties.

Thayer's Gull
All reports: 10/25 Duluth (2 imm.) KE, 11/22 Lake (1 imm.) KE, 11/30 **Hennepin** (1 ad.) SC, GP.

Glaucous Gull
All reports: **10/26**-11/30 Duluth (2) KE, 11/18 **Mille Lacs** D. Johnson, 11/23 Cook WP, 11/29-30 **Hennepin** m.ob., 11/30 Dakota TT.

Caspian Tern
Early south 8/2 Dakota TT, 8/12 Hennepin SC; late north 9/19 Marshall ANWR, 9/21 Duluth BE, 9/28 Crow Wing KL; late south 10/2 Le Sueur RJ, 10/5 Hennepin ES, 10/7 Anoka KB.

Common Tern
Late north 8/27 Aitkin SC, 8/28 Mille Lacs DB, 9/12 Duluth NH; one south report 9/16 Hennepin DB.

Forster's Tern
Late north 9/16 Duluth KE, 9/28 Otter Tail SDM, **10/14** Grant KL; late south 8/30 Nicollet JF, 9/15 Ramsey KB, 9/27 Steele RJ.

Black Tern
Late north 8/24 Marshall RJ, 8/31 Polk AB; late south 9/1 Lac Qui Parle GS and Brown JHHS, 9/3 Hennepin SC, 9/15 Nicollet JF.

Rock Dove
Reported from ten north and 20 south counties.

Mourning Dove
Late north 10/18 Wilkin GAM, 11/24 Clay JN, 11/28 Cook SL.

Black-billed Cuckoo
Late north 8/31 Clearwater AB, 9/8 Cook KMH, 9/26 Wadena DB; late south 9/12 Houston EMF, 9/19 Wabasha PP, 9/28 Olmsted BE.

Yellow-billed Cuckoo
9/20-28 Olmsted PP, BE, 9/26 Houston EMF.

COMMON BARN-OWL
8/20 **Polk**: (***The Loon*** 59:47-48).

Eastern Screech-Owl
Reported from Cottonwood, Lac Qui Parle, Murray, Olmsted, Ramsey and St. Louis counties.

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

Snowy Owl
All reports: 11/12 Marshall ANWR, 11/18-28 Duluth (2) KE, 11/24 Wilkin SEM, 11/25 Cook fide SL, 11/26-29 Aitkin (2) ScC, WN, 11/27 Clearwater (5) AB.

Northern Hawk-Owl
10/24 Roseau RG, RJ.

Barred Owl
Reported from five north and ten south counties.

Great Gray Owl
All reports: 8/15-11/29 Aitkin WN, 10/29 Loon Lake, Cook Co. SS, 11/28 Sax-Zim Bog, St. Louis Co. KE.

Long-eared Owl
All reports: 10/5 Polk DS, 11/14 Marshall ANWR, 11/17-18 St. Louis fide KE. 112 banded at Hawk Ridge, Duluth.

Short-eared Owl
All reports: 8/24 Marshall RJ, 10/5 Polk DS, 10/9 Fillmore AP, 10/10 Olmsted AP, 10/13 Duluth M. Stensaas, 11/11-12 Marshall (2) ANWR, 11/16 Wilkin (6) SDM, 11/18 Duluth fide KE, 11/21 Carlton KL.

Boreal Owl
All reports: 8/1-7 Lake (male still singing) SW/MS, 10/29 Hawk Ridge, Duluth (1 banded) KE, 11/18 Duluth J. Newman (***The Loon*** 59:52).

Northern Saw-whet Owl
All reports: 8/8 Lake (4 juv.) SW/MS, 10/20 Clay MM, 11/16 Stearns (road kill) JP/AM. 328 banded at Hawk Ridge, Duluth.

Common Nighthawk
Late north 9/2 Clay LCF, 9/26 Morrison AB, **10/3** Otter Tail SDM; late south 10/5 Houston EMF, 10/10 Ramsey KB, 10/14 Olmsted AP; peak 8/16 Duluth (**16,494**) K. Camburn (***The Loon*** 58:197).

Whip-poor-will
All reports: 8/1 Lake SW/MS, 8/3-9/12 Houston EMF, 8/3-**9/29** Cook SL, 8/15 Aitkin WN, 8/27 Anoka SC, GP, **10/2** Clay LCF.

Chimney Swift
Late north 8/21 Cook KMH, 8/31 Polk AB, 9/6 Clay LCF; late south 10/1 Washington TBB, **10/14** Fillmore AP and Hennepin ES.

Ruby-throated Hummingbird
Late north 9/12 Hubbard HJF, 9/22 Cook KMH, **10/7** Wilkin GAM; late south 9/23 Mower JM, 9/24 Cottonwood BF, 9/27 Rice and Steele AP.

RUFOUS HUMMINGBIRD
9/16-23 Zumbro Falls, Wabasha Co. (1 male) L. Martinson, m.ob. (***The Loon*** 58: 200-201).

Belted Kingfisher
Late north 10/21 Mille Lacs ES, 10/25 Mahnomen RJ, 11/23 Otter Tail SDM.

Red-headed Woodpecker
Late north 9/4 Mahnomen RJ, 9/7 Cook KMH.

Red-bellied Woodpecker
Reported from Duluth, Otter Tail, Aitkin and 11/17 Cass TK in the north and from 24 south counties.

Yellow-bellied Sapsucker
Late north 10/9 Cook KMH, 10/14 Clay LCF, 10/16 Duluth DB, OJ; late south 10/14 Brown JS, 10/15 Anoka SC, GP, 11/30 Freeborn NHo.

Downy Woodpecker
Reported from 16 north and 29 south counties.

Hairy Woodpecker
Reported from 17 north and 31 south counties.

Three-toed Woodpecker
All reports: 9/12 Duluth SDM, 10/5 Duluth KE, 11/22 Cook KE.

Black-backed Woodpecker
Reported from Beltrami, Cass, Cook, Hubbard, Itasca, Lake, Pine and St. Louis. A peak of eight on 9/13 Hawk Ridge m.ob.

Northern Flicker
Late north 11/22 Wilkin SDM and 11/27 Clay LCF. The major movement was 10/4-19.

Pileated Woodpecker
Reported from 18 north and 20 south counties.

Olive-sided Flycatcher
Early south 8/4 Freeborn NHo, 8/12 Hennepin SC, 8/13 Brown JS; late north 8/30 Clearwater AB, 9/1 Cook KMH, 9/4 Red Lake RJ; late south 9/19 Nicollet JCF, 9/23 Hennepin SC, **10/5** Dakota TTu.

Eastern Wood-Pewee
Late north 8/31 Aitkin WN and Clearwater AB, 9/21 Clay LCF; late south 9/26 Olmsted BE and Freeborn NHo, 9/27 Nicollet JF, 9/28 Chippewa RGJ.

Yellow-bellied Flycatcher
Early south 8/11 Ramsey KB, 8/15 Mower JM, 8/21 Hennepin SC; late north 8/16 Clay LCF, 8/17 Marshall RJ; late south 9/12 Freeborn NHo, 9/21 Hennepin SC.

Acadian Flycatcher
Two reports: 8/9 and 8/15 Goodhue TT, BL and 8/10 Houston JP/AM.

Alder Flycatcher
Late north 8/17 Isanti AB, 8/31 Aitkin WN, 9/3 Traverse RJ; late south 9/4 Olmsted AP.

Willow Flycatcher
8/1 and 9/29 Houston EMF, 8/8 Dakota DB, Fillmore AP, 8/16 Clay TM, 8/27 Marshall AB.

Least Flycatcher
Late north 10/4 Duluth KB; late south 9/22 Hennepin SC, 9/27 Olmsted BE and Houston EMF.

Eastern Phoebe
Late north 9/21 Clay LCF, 9/27 Wadena AB, 10/5 Otter Tail SDM; late south 10/15 Ramsey KB and Freeborn NHo, 10/18 Dakota DZ.

Great Crested Flycatcher
Late north 8/28 Clay LCF, 8/29 Itasca DB, 8/31 Clearwater AB; late south 9/22 Hennepin SC, Ramsey KB, 9/28 Brown JS.

Western Kingbird
Late north 9/1 **Duluth** T. Savaloja, 9/3 Wilkin RJ, **11/2-3 Cook** KE, KMH; late south 8/1 Hennepin OJ, 8/25 Lac Qui Parle RGJ.

Eastern Kingbird
Late north 9/14 Cook KMH, 9/19 Mille Lacs AB; late south 9/7 Freeborn NHo, 9/20 Washington TBB, 9/23 Olmsted BE.

Horned Lark
Late north 11/9 Cook KMH, 11/15 Kanabec RJ, 11/16 Clay LCF.

Purple Martin
Late north 9/1 Wadena AB, 9/9 Wadena AB, 9/9 Clay LCF; late south 9/8 Olmsted PP, 9/20 Murray ND, 9/20 Washington DS.

Tree Swallow
Late north 8/31 Aitkin WN, 9/1 Wadena AB, 9/28 Clay LCF; late south 10/16 Ramsey KB and Houston FL, 10/18 Scott BL, 10/30 Hennepin SC.

Northern Rough-winged Swallow
Late north 8/30 Polk AB, 9/14 Clay LCF; late south 9/30 Hennepin DB, **10/18** Scott BL.

Bank Swallow
Late north 8/31 Polk AB, **9/27** Becker BK; late south 9/1 Brown JS, 9/2 Freeborn NHo, 9/4 Winona AP.

Cliff Swallow
Late north 8/31 Aitkin WN, 9/1 Wadena AB, **9/21** Clay LCF; late south 9/4 Hennepin AB, 9/7 Freeborn NHo, 9/8 Olmsted PP.

Barn Swallow
Late north 10/4 Mille Lacs RJ, 10/7 Duluth KE, 10/14 Grant and Doublas KL; late south 10/15 Freeborn NHo and Wright ES, 10/18 Scott BL, 10/19 Chippewa AB.

Gray Jay
Reported from 14 north counties with a season total of 470 in Duluth (***The Loon*** 59:41-44); reports from Anoka, Chisago, Isanti, Ramsey and Washington counties south.

Blue Jay
Reported from 17 north and 26 south counties; peak 9/6-7 Duluth (2527) M. Hendrickson.

CLARK'S NUTCRACKER
9/13 Austin, Mower County, D. Smaby (***The Loon*** 58:199).

Black-billed Magpie
Sixteen reports from 14 north counties.

American Crow
Reported from 18 north and 24 south counties.

Common Raven
Reported from 13 north and one south county: 11/21 Chisago RG.

Black-capped Chickadee
Reported from 16 north and 29 south counties.

Boreal Chickadee
Reported from ten north counties with a peak of 40 on 10/8 Duluth KE. Also reported 10/16 **Ramsey** KB and 11/16-22 **Wabasha** m.ob.

Tufted Titmouse
Reported 8/2, 11/16, 11/30 Houston m.ob., 10/5 Fillmore AP and 11/30 Olmsted JEB.

Red-breasted Nuthatch
Early south 8/23 Brown JS, 8/24 Steele RG.

White-breasted Nuthatch
Reported from 14 north and 27 south counties.

Brown Creeper
Early south 8/30 Hennepin TT, 9/7 Anoka SC, 9/16 Washington TBB.

ROCK WREN

10/17 Duluth K. Camburn et al. (***The Loon*** 58:199-200).

House Wren
Late north 9/26 Wadena AB, 10/5 Clay LCF; late south 10/12 Brown JS, **10/24** Murray ND, **10/26** Lyon HK.

Winter Wren
Early south 9/6 Anoka GP, 9/13 Brown RG, 9/15 Fillmore AP; late north 10/12 Clay LCF, 10/18 Duluth TM, **10/26** Wadena DB; late south 10/25 Ramsey KB and Anoka GP, **11/24** Brown JS.

Sedge Wren
North 8/2 Aitkin WN; late south 10/1 Hennepin SC, 10/4 Brown JS.

Marsh Wren
North 8/27 Marshall AB; late south 10/17 Dakota RG, 10/19 Lyon HK, **10/27** Hennepin SC.

Golden-crowned Kinglet
Early south 9/6 Houston JM, 9/13 Anoka SC; late north 11/9 Clay LCF, 11/15 Mille Lacs RJ, 11/28 Clearwater AB.

Ruby-crowned Kinglet
Early south **8/20** Cottonwood BF, 8/21 Mower RRK; late north 10/8 Kanabec AB and Cook KMH, 10/23 Clay LCF; late south 11/3 Hennepin SC, 11/7 Ramsey KB.

Blue-gray Gnatcatcher
Reported from ten counties including **Duluth** KE (2nd co. record); late south 9/11 Houston EMF, 9/20 Dakota TT, **10/5** Fillmore AP.

Eastern Bluebird
Late north 10/19 Otter Tail GAM, 10/23 Clay LCF, 10/27 **Cook** TT. Peak migration 10/19-27.

Mountain Bluebird
Still present 8/2-3 Aitkin WN.

Townsend's Solitaire
Only report 11/1 Cook fide KE.

Veery
Late north 9/1 Cook KMH, 9/13 Duluth AB, TBB; late south 9/28 Washington DS, **10/19** Hennepin OJ.

Gray-cheeked Thrush
Early south **8/28** Hennepin ES; late north 9/13 Duluth TBB, 9/23 Cook KMH; late south 10/6 Mower RRK, 10/9 Washington TBB.

Swainson's Thrush
Early south 9/11 Hennepin SC, 8/23 Houston EMF, 8/27 Dakota TT and Sherburne GS; late north 10/5 Clay LCF and Cook SL, 10/15 Duluth KE; late south 10/4 Sherburne RJ, RG, 10/9 Hennepin ES, 10/11 Cottonwood BF.

Hermit Thrush
Early south 9/20 Ramsey KB, 9/28 Anoka SC, 9/30 Houston EMF; late north 10/26 Kanabec AB, **11/22** Duluth J. Newman; late south 10/25 Ramsey KB, 10/26 Chippewa RGJ, 11/7 Brown JS.

Wood Thrush
All reports 8/29 and 9/23 Hennepin SC, ES, 9/2 Sherburne DO/SS, 9/11 Brown JS, **10/19** Freeborn NHo.

American Robin
Late north 11/27 Clearwater AB, 11/28 Otter Tail SDM.

Varied Thrush
All reports: 10/6 Cook KMH, 11/15 Benton RJ, RG; 11/20 Carlton fide KE, 11/27 Crow Wing WN.

Gray Catbird
Late north 10/1 Cook KMH, 10/5 St. Louis DZ, 10/23 Clay fide LCF; late south 10/4 Brown JS, 10/6 Houston EMF, 10/8 Ramsey KB.

Northern Mockingbird
10/18 Duluth P. Backstrom.

Brown Thrasher
Late north 9/16 St. Louis SS, **10/24** Lake of the Woods RJ; late south 109/28 Sherburne DO/SS, 11/7 Hennepin DB, **11/16** Nicollet MF.

Water Pipit
Early north **9/2** Cook KMH, 9/13 Duluth KE, NH, 9/20 Lake SW/MS; late north 10/19 Lake TM, 11/2 Douglas RG, 11/9 Cook KMH.

Bohemian Waxwing
Reported from eight counties north and two south: 11/5 Hennepin ES, 11/15 Stearns RJ. Early north **9/30** Hawk Ridge D. Meyer, KE, **10/4** Koochiching GM, 10/18 Lake SW/MS.

Cedar Waxwing
Scattered reports throughout the state over the entire period.

Northern Shrike
Early north 10/5 Wilkin SDM, 10/9 Duluth fide KE, 10/11 Aitkin SC, WN; early south **10/8** Winona AP, 10/18 Dakota TT, 10/21 Ramsey KB.

Loggerhead Shrike
Late north 9/21 Wilkin SDM, 10/19 Clay LCF; late south 8/16 Lac Qui Parle RGJ, 8/22 Benton AB, 9/19 Dodge JB.

European Starling
Reported from 10 north and 23 south counties.

Bell's Vireo
Only report 8/9 Wabasha JP/AM.

Solitary Vireo
Early south **8/20** Scott GS, 8/27 Anoka SC and Brown JS; late north 9/13 Clay LCF, **10/19** Duluth T. Savaloja; late south 10/6 Houston EMF, 10/11 Chisago RJ, 10/16 Hennepin ES.

Yellow-throated Vireo
Late north 8/31 Clearwater AB and Clay LCF and Aitkin WN; late south 9/20 Ramsey KB, 9/22 Brown JS, 9/24 Houston EMF.

Warbling Vireo
Late north 8/21 Clay LCF, 8/26 Polk AB; late south 9/4 Freeborn NHo, 9/12 Hennepin SC, 9/23 Houston EMF.

Philadelphia Vireo
Early south 8/23 Brown JS, 8/29 Hennepin SC; late north 9/15 Cook KMH, **10/14** Duluth KE; late south 9/22 Ramsey KB and Brown JS, 9/28 Fillmore AP, 9/29 Olmsted JB.

Red-eyed Vireo
Late north 9/14 Clay LCF and Duluth TM, 9/18 Cook KMH, 9/20 Itasca AB; late south 9/27 Nicollet JCF and Rice AP, 9/28 Houston EMF, 10/1 Brown JS.

Blue-winged Warbler
All reports: 8/1 and 9/4 Houston EMF, 8/9 Goodhue TT, 8/24 Ramsey KB and **9/20** Wabasha AP.

Golden-winged Warbler
Late north 8/16 Cass and Morrison RJ, 8/31 Clearwater AB; late south 8/30 Dakota TT, 9/1 Anoka TT, 9/22 Hennepin SC.

Tennesee Warbler
Early north 8/3 Clearwater JP/AM, 8/14 Clay LCF; early south 8/1 Houston EMF, 8/2 Hennepin TT; late north 10/10 Lake SW/MS, 10/20 Cook KMH, 10/21 Duluth KE; late south 10/8 Houston EMF, 10/9 Fillmore AP, 10/18 Hennepin SC.

Orange-crowned Warbler
Early north 8/7 Clay LCF, 8/27 Marshall AB; early south 8/16 Lyon HK, 8/17 Washington DS, 8/20 Anoka SC; late north 10/14 Cook KMH, 10/15 Duluth SDM, 10/16 Clay LCF; late south 10/8 Ramsey KB, 10/19 Brown JS, **11/5** Hennepin ES.

Northern Parula
Early south **8/20** Anoka SC, **8/24** Hennepin TT, 8/30 Redwood RJ and Nicollet JF; late north 9/20 Cook KMH; late south 9/20 Anoka SC, GP, 9/22 Ramsey KB, 9/23 Mower RRK.

Yellow Warbler
Late north 8/31 Clearwater AB and Clay LCF and Aitkin WN, 9/11 Cook KMH; late south 9/16 Lyon HK, 9/27 Washington TBB, 9/30 Olmsted PP.

Chestnut-sided Warbler
Early south 8/9 Anoka SC, 8/11 Ramsey KB, 8/15 Dakota TT; late north 9/11 Duluth SDM, 9/13 Cook KMH, 9/20 Lake SW/MS; late south 9/28 Houston EMF, **10/7** Hennepin ES.

Magnolia Warbler
Early south **8/11** Ramsey KB, **8/12** Anoka JH, **8/15** Dakot TT; late north 9/20 Itasca AB, DB and Otter Tail SDM, 9/21 Clay LCF, 9/27 Cook KMH; late south 10/4 Sherburne RG, RJ, 10/9 Hennepin ES, **10/16** Ramsey KB.

Cape May Warbler
Early south **8/2** Wabash WDM, **8/9** Goodhue TT, 8/10 Hennepin SC; early north 8/16 Hubbard and Morrison RJ, RG and Clay LCF, 8/28 St. Louis SS; late north **10/23** Duluth KE, **10/27** Cook TT; late south 9/16 Hennepin SC, 9/20 Wabasha AP and Ramsey DZ.

Black-throated Blue Warbler
Seventeen reports from eight counties. Late south 9/20 **Lincoln** RJ, 9/27 Brown JS, 10/2 Waseca RJ, 10/4 Anoka SC, GP. Most reports ever!

Yellow-rumped Warbler
Early south 8/12 Anoka JH, GP, 8/16 Lyon HK, 8/17 Isanti AB and Freeborn NHo and Olmsted AP and Washington DS; late north 10/16 Duluth OJ and Clay LCF, 10/18 Lake RJ, SW/MS; late south 11/2 Lyon HK and Wabasha WDM, 11/6 Le Sueur EK.

Black-throated Green Warbler
Early south **8/17** Washington DS, **8/19** Hennepin ES, SC, 8/22 Anoka GP; late north 9/21 Duluth BE, 10/1 Lake SW/MS; late south 9/28 Olmsted BE, 9/29 Hennepin SC and Houston EMF.

Blackburnian Warbler
Early south 8/9 Anoka SC and Houston EMF, 8/10 Ramsey KB and Brown JS; late north 8/31 Aitkin WN, 9/2 Clay LCF; late south 9/24 Houston EMF, 9/27 Rice RJ, AP, 10/4 Olmsted BE.

Pine Warbler
Early south **8/15** Houston EMF, **8/17** Isanti AB, 8/18 Freeborn NHo; late north 8/30 Clay LCF, 9/4 Becker RJ (20+); late south 9/20 Lincoln RJ and Washington DS, **10/14** Fillmore AP.

Palm Warbler
Early north 8/12 Cook SL, 8/27 Marshall AB; early south **8/15** Hennepin DB, Chisago OJ, **8/17** Washington DS, **8/20** Murray ND; late north 10/16 Duluth OJ, DB, 10/18 Lake RJ, 10/19 Cook KMH; late south 10/12 Brown JS, 10/18 Wabasha AP and Hennepin SC.

Bay-breasted Warbler
Early south **8/3** Dakota TTu, **8/9** Anoka SC, **8/13** Wright ES; late north 9/27 Wadena AB, **10/25** Duluth m.ob.; late south 9/22 Cottonwood BF and Hennepin SC, 9/23 Wabasha AB, 10/5 Ramsey KB.

Blackpoll Warbler
Early north **8/15** Clay LCF, 9/12 Duluth DB; early south 8/10 Brown JS, 8/14 Anoka JH; late north 9/20 Itasca AB, **10/24** Cook KE; late south 9/22 Hennepin SC and Ramsey KB and Brown JS, 10/3 Lyon HK.

Cerulean Warbler
Two reports: 8/15 Goodhue BL and **8/30** Redwood RJ.

Black-and-white Warbler
Late north 9/13 Clay LCF and Cook KMH 9/14 Duluth TM, 9/20 Itasca AB; late south 9/27 Rice RJ, AP, 10/4 Anoka SC, GP, 10/10 Lyon HK.

American Redstart
Late north 9/20 Itasca AB, 9/30 Cook KMH, 10/1 Clay LCF; late south 10/2 Hennepin SC, 10/3 Lyon HK, 10/11 Dakota TT.

Prothonotary Warbler
Late south **9/3** Wabasha WDM, **9/23** Olmsted JB.

Ovenbird
Late north 9/20 Clay LCF and Itasca AB, **10/17** Duluth RJ, P. Egeland; late south 9/27

Dodge AP, 9/27 Hennepin SC, GP, 10/4 Benton RJ.

Northern Waterthrush
Early south **8/2** Hennepin TT, 8/10 Brown JS and Ramsey KB; late north 9/1 Otter Tail SDM, 9/20 Itasca AB, 10/4 Mille Lacs RG, RJ; late south 9/27 Rice AP, 10/3 Hennepin SC, 10/4 Dakota TT.

Connecticut Warbler
Early south **8/18** Freeborn NHo and Hennepin DB, 8/27 Dakota TT; late south 9/12 Freeborn NHo, 9/13 Hennepin SC.

Mourning Warbler
Early south **8/9** Anoka SC, **8/21** Brown JS; late north 8/28 Marshall AB, 9/6 Cook KMH; late south 9/12 Olmsted PP, 9/15 Ramsey KB, 9/16 Hennepin SC.

Common Yellowthroat
Late north 9/14 Clay LCF and Duluth TM, 10/12 Cook GS; late south 10/5 Olmsted PP, 10/7 Brown JS, 10/26 Lyon HK.

Wilson's Warbler
Early south **8/1** Hennepin OJ, **8/11** Brown JS, 8/16 Cottonwood BJ; late north 9/9 Clay LCF, 10/8 Cook KMH, 10/15 Duluth SDM; late south 9/26 Olmsted JB, 9/27 Nicollet JF, 9/29 Hennepin SC.

Canada Warbler
Early south 8/9 Anoka SC, 8/10 Brown JS, 8/11 Ramsey KB; late north 8/25 Clearwater AB, 8/28 Clay LCF, 9/12 Duluth SDM; late south 9/20 Ramsey KB, 9/22 Hennepin SC, **10/2** Houston EMF.

Scarlet Tanager
Late north 8/31 Aitkin WN and Clearwater AB, 9/13 Duluth SDM, 9/17 Cook KMH; late south 9/21 Hennepin SC, 9/22 Ramsey KB, 9/24 Houston EMF.

Northern Cardinal
Reported from Aitkin and Clay counties north and west to Lyon and Redwood counties.

Rose-breasted Grosbeak
Late north 8/31 Polk AB, 10/18 Cook AP; late south 9/29 Ramsey KB, 10/2 Hennepin SC, 10/21 Lyon HK.

Blue Grosbeak
Only report 9/20 Murray ND.

Indigo Bunting
Late north 9/19 St. Louis CO, **10/23** Duluth KE; late south 9/27 Houston EMF, 10/4 Hennepin TT, **10/25** Chippewa RGJ.

Dickcissel
Late north **10/24 Duluth** KE; late south 8/8 Fillmore AP, 8/12 Freeborn NHo, 8/132 Cottonwood BF.

Rufous-sided Towhee
Late north 8/24 Beltrami AB, 9/26 Becker BK; late south 10/4 Fillmore FL, 10/5 Ramsey KB, 10/12 Houston EMF.

American Tree Sparrow
Early north 10/3 Duluth KE, 10/6 Cook KMH, 10/12 Beltrami TK; early south 10/6 Houston EMF and Rice PP, 10/8 Murray ND and Ramsey KB.

Chipping Sparrow
Late north 9/27 Wadena AB, 10/21 Cook KMH, **10/26** Clay LCF; late south 10/20 Chippewa RGJ, 10/22 Dakota JP/AM, 10/25 Anoka JH.

Clay-colored Sparrow
Late north 9/15 Duluth TM, 9/217 Wadena AB, **10/19** Cook KMH; late south 9/20 Chippewa RGJ, 9/27 Dodge RJ and Hennepin OJ.

Field Sparrow
Only report north 10/24 **Cook** KMH; late south 10/20 Chippewa RGJ, 10/21 Mower AP, 10/24 Brown JS.

Vesper Sparrow
Late north 10/6 St. Louis DZ, 10/19 Clay LCF; late south 10/15 Freeborn NHo, 10/24 Mower RRK, **11/25** Cottonwood E. Duerksen.

Lark Sparrow
Late north 9/1 **Duluth** T. Savaloja; late south 8/9 Dakota JP/AM, 8/15 Anoka JH, **9/27** Mower JM.

Lark Bunting
Unusual reports north 10/19 **Cook** KMH 10/29 **Duluth** J. Newman (***The Loon*** 59:53).

Savannah Sparrow
Late north 10/19 Clay LCF and Cook KMH and Duluth TM, 10/25 Grant AB, **11/5** Otter Tail SDM; late south 10/21 Fillmore AP, 10/26 Hennepin ES, 10/28 Ramsey KB.

Grasshopper Sparrow
Late north 8/2 Clay BL; late south 8/8 Fillmore and Mower AP.

LeConte's Sparrow
Late north 8/3 Aitkin WN, 8/16 Clay TM.

Fox Sparrow
Early north **8/30** Cook SL, **8/31** Duluth MH, 9/19 Clay LCF; early south **9/7** Olmsted AP, 9/22 Washington DS, 9/23 Mower RRK; late north 11/14 Otter Tail SDM, 11/15 Duluth fide KE, **11/22** Crow Wing WN; late south 11/18 Houston EMF, 11/20 Lyon HK, 11/22 Hennepin ES.

Song Sparrow
Late north 10/25 Mahnomen RJ and Wilkin AB, 11/9 Cook KMH and Otter Tail SDM.

Lincoln's Sparrow
Early south **8/17** Isanti AB, 8/31 Hennepin TT, 9/19 Nicollet JF; late north 10/5 Clay LCF and Itasca AB, 10/22 Cook KMH, 10/30 Beltrami; late south 10/18 Anoka JH, 10/25 Lyon HK, 10/27 Ramsey KB.

Swamp Sparrow
Late north 10/10 Clay LCF, 10/14 Cook KMH, 10/25 Wilkin AB; late south 10/27 Hennepin SC, 11/2 Washington TBB, 11/15 Ramsey KB.

White-throated Sparrow
Early south **8/26** Brown JS and Washington DS, **8/27** Anoka SC, **9/1** Hennepin DB; late north 11/5 Clay LCF, 11/8 Cook WP, 11/16 Aitkin WN; late south 11/22 Hennepin ES, 11/26 Ramsey TT, 11/29 Lac Qui Parle FE.

White-crowned Sparrow
Early south **8/26** Brown JS and Washington DS, **8/27** Anoka SC, **9/25** Dakota TT; late north **10/28** Cook KMH, **11/25** Becker BK; late south 10/9 Lac Qui Parle FE, 10/26 Chippewa RGJ, **11/6** Murray ND.

Harris' Sparrow
Early north **9/8** **Duluth** KE, 9/25 Koochiching GM, 9/27 Clay LCF; early south 9/26 Chippewa RGJ, 9/28 Washington TBB, 10/4 Brown JS; late north **11/9** Cook, **11/11** **Duluth** KE, **11/13** Otter Tail SDM; late south 10/8 Lac Qui Parle FE and Murray ND, 10/9 Hennepin DB, 10/26 Chippewa RGJ.

Dark-eyed Junco
Early south **9/6** Anoka SC, GP and Olmsted RE, 9/18 Brown JS.

McCOWN'S LONGSPUR
10/19 and 10/20 Duluth RJ, P. Egeland et al. (**The Loon** 58:198-199).

Lapland Longspur
Early north **9/6** Cook KMH, 9/12 Duluth DB, GS, 10/25 Clay LCF and Grant AB;

Snow Bunting
Early north **10/6 Duluth MH, 10/8** Cook KMH, **10/10** Aitkin WN; early south **10/15** Hennepin OJ and Olmsted RE, 10/21 Washington TBB.

Bobolink
Late north 8/9 Aitkin WN, 8/30 Polk AB, 9/14 Clay LCF; late south 8/16 Mower JM, 8/31 Fillmore AP, 9/1 Anoka TT, DZ.

Red-winged Blackbird
Late north 11/29 Duluth KE, 11/30 Aitkin WN and Cook KMH, SL and Otter Tail SDM.

Western Meadowlark
Late north 11/6 Otter Tail SDM, 11/9 Cook KMH, **11/23** Clay LCF.

Yellow-headed Blackbird
Late north 9/7 Clay LCF, 10/26 Grant TT; late south 10/31 Nicollet JF, 11/1 Lyon HK, 11/4 Chippewa RGJ.

Rusty Blackbird
Early north 10/4 Cook SL and Kanabec RJ, 10/5 Itasca DB and Otter Tail RG; early south **8/26** Fillmore AP, 10/5 Ramsey DZ, 10/16 Houston FL and Ramsey KB; late north **11/30** Cook KMH and Hubbard HJF and Otter Tail SDM; late south 11/20 Anoka GP, 11/21 Houston EMF, 11/23 Mower RRK.

Brewer's Blackbird
Late north **11/17** Cook WP and Lake SW/MS, **11/21** Duluth KE, **11/27** Cook KMH;

late south 10/12 Meeker AB, 10/24 Hennepin SC.

Common Grackle
Late north 11/26 Aitkin SC and Duluth KE, 11/30 Aitkin WN and Cook KMH, SL.

Brown-headed Cowbird
Late south 10/26 Olmsted RE, 10/31 Nicollet JF, **11/23** Dakota TT.

Orchard Oriole
Only report north 8/17 Clay LCF, TM; late south 8/10 Chippewa RGJ, 8/23 Murray ND, **9/4** Winona AP.

Northern Oriole
Late north 9/1 Wadena AB, 9/3 Clay LCF and Norman RJ, 9/4 Koochiching GM; late south 9/27 Murray ND, 10/1 Mower AP, 10/4 Houston EMF.

Pine Grosbeak
Early north 10/25 Cook KMH, 10/30 Duluth MH, 11/8 Itasca DB; early south 10/25 Anoka JH, 11/26 Olmsted AP.

Purple Finch
Reported from fifteen counties north and twenty counties south.

Red Crossbill
Early north 8/2 Duluth KE, 9/4 Polk RJ; early south 8/17 Washington KB, 10/19 Dakota TT.

White-winged Crossbill
Early north 8/27 Duluth KE, 10/26 Mahnomen RJ, 11/15 Mille Lacs RG, RJ.

Common Redpoll
Early north **10/8** Cook RJ, 10/15 Duluth KE, 10/17 Otter Tail SDM; early south **10/16** Houston FL, 10/27 Ramsey KB, 11/2 Yellow Medicine DZ.

Hoary Redpoll
Early north **10/18** Cook RJ, 10/24 Lake of the Woods RJ, 11/27 Clearwater AB; early south 11/16 Olmsted RE.

Pine Siskin
Reported from eleven counties north and nineteen counties south.

American Goldfinch
Reported from eleven counties north and twenty one counties south.

Evening Grosbeak
Early south **10/15** Wright ES, **10/16** Stearns NH, 10/19 Anoka SC.

House Sparrow
Reported from thirteen counties north and twenty four counties south.

CONTRIBUTORS

Agassiz NWR (ANWR)
Karl Bardon (KB)
Tom and Bette Bell (TBB)
Al Bolduc (AB)
Don Bolduc (DB)
Jerry Bonkoski (JB)
Steve Carlson (SC)
Horace and John Chamberlain (HJC)
Nelvina DeKam (ND)
Kim Eckert (KE)
Fred Eckhardt (FE)
Bob Ekblad (BE)
Laurence and Carol Falk (LCF)
Buddy Feil (BF)
Herbert and Jeanette Fisher (HJF)
Eugene and Marilyn Ford (EMF)
John Frentz (JF)
Merrill Frydendall (MF)
Ray Glassel (RG)
Marshall Helmberger (MH)
Nestor Hiemenz (NH)
Ken and Molly Hoffman (KMH)
Nancy Holway (NH)
James Howitz (JH)
Robert Janssen (RJ)
Oscar Johnson (OJ)
Roger and Gretchen Johnson (RGJ)
Byron Kinkade (BK)
Ron and Rose Kneeskern (RRK)
Tom Kogut (TK)
Erlys Krueger (EK)
Henry Kyllingstad (HK)
Ken LaFond (KL)
Jean Leckner (JL)
Fred Lesher (FL)
Bill Litkey (BL)
Sandy Lunke (SL)

Wynn and Don Mahle (WDM)
Grace Marquardt (GM)
Gordon and Artis Martinson (GAM)
Thomas McMullen (TM)
Steve and Diane Millard (SDM)
Mark Moore (MM)
John Morrison (JM)
Warren Nelson (WN)
Carol Oleson (CO)
Dan Orr and Sharon Sarappo (DO/SS)
Paul Pedersen (PP)
Jon Peterson and Ann McKenzie (JP/AM)
Greg Pietila (GP)
Anne Marie Plunkett (AP)
Walter Popp (WP)
Steven Schon (SS)
Gary Simonson (GS)
Dave Sovereign (DS)
Jack Sprenger (JS)
Evelyn Stanley (ES)
Forest and Kirsten Strnad (FKS)
Thomas Tustison (TT)
Steve Wilson and Mary Shedd (SW/MS)
Dave Zumeta (DZ)

A Survey of Purple Martins Nesting in Central Minnesota

Pamela Skoog Perry[1] and Scott D. Bloch[2]

Purple Martins (**Progne subis**) are one of Minnesota's most popular summer residents. Not only do they consume large quantities of flying insects (Bent 1942, Kale 1968) but they also provide entertainment with their aerial flights and pleasant chatter. A bird of open spaces, the martin will nest in multiple unit houses placed in yards, near fields or on lakeshores.

Concern has been expressed in recent years for populations of the purple martin in North America and the species has been Blue-listed since 1975 (Arbib 1978). Population fluctuations and declines have been attributed to severe weather and interspecific competition from European Starlings and House Sparrows (Brown 1981b, Mayfield 1969).

Although Purple Martins can be found throughout Minnesota wherever suitable habitat occurs, they are not equally easy to attract in all areas or with all types of houses. In an effort to learn more about the martin's distribution and nesting habits in central Minnesota, a questionnaire was distributed in the summer of 1983 to both successful and unsuccessful Purple Martin landlords.

METHODS

A questionnaire form was developed that consisted of 13 questions about Purple Martin houses. These questions requested information about the type of martin house, its location, its use by martins, and problems encountered with other avian competitors.

A news release that solicited survey participants who had martin houses, whether occupied by martins or not, was sent to 53 newspapers in the central Minnesota region in early June. The 14 central Minnesota counties that were included in the news release mailing were Benton, Cass, Chisago, Crow Wing, Isanti, Kanabec, Mille Lacs, Morrison, Pine, Sherburne, Stearns, Todd, Wadena, and Wright. People with martin houses responded by mail or phone to obtain a questionnaire form. A total of 175 questionnaires were completed by this method.

On-site interviews of property owners with Purple Martin houses were conducted to supplement those done by mail and increase our sample size. This was done when a martin house was sighted while traveling to and from places on other DNR business. Twenty-seven questionnaire forms were completed by this method, primarily around the Brainerd area in Cass and Crow Wing counties. Also, a survey was done of martin houses on Big Watab Lake in Stearns county. Martin houses on the lakeshore were located by boat and the owners (if at home) were interviewed. An additional 11 questionnaires were completed by this method.

RESULTS AND DISCUSSION

Although news releases were sent to only

14 counties, requests for survey forms were received from 23 counties (Table 1). Participants ranged from as far south as Albert Lea in Freeborn County, east to Markville on the Wisconsin border in Pine County, west to Lake Ida in Douglas County and north to Walker in Cass County.

Almost half (48.3%) of the 213 participants in this survey came from Stearns, Crow Wing and Wright counties. It is not known whether there is more interest in martins in these counties, more martin houses, or whether their larger human populations may have resulted in a wider newspaper circulation of the news release.

Despite the difference in the number of participants per county, there does not seem to be a substantial difference in martin house success between different counties or regions of central Minnesota. Of the 213 participants, 54.9% reported that they had at least one pair of nesting Purple Martins. The five counties with more than 155 participants ranged from 52.2% to 64.7% reporting martins. The remaining counties with 10 or fewer participants were highly variable in their success rate due to the small sample sizes.

We received information on 301 martin houses. The majority of participants (75.0%) had only one martin house. Two participants each reported having 7 houses, the greatest number reported. The longest time that any participant reported having the same martin house up was 37 years although others reported replacing houses when they needed repair over a time span of 50 years or more. The longest reported success with martins was 35 years.

HEIGHT

The average height of houses with martins was 15.0 feet with the highest being 30 feet and the lowest only 8 feet from the ground. Houses that were 8-10 feet high were 67%

Table 1. Number of participants completing questionnaires and percentage having Purple Martins by county.

County	Number of participants	% of total participants by county	% of participants having Purple Martins
Stearns	51	23.9	60.8
Crow Wing	29	13.6	55.2
Wright	23	10.8	52.2
Morrison	19	8.9	55.5
Cass	17	8.0	64.7
Mille Lacs	10	4.7	60.0
Chisago	10	4.7	40.0
Todd	9	4.2	72.8
Isanti	7	3.3	28.6
Benton	6	2.8	76.7
Pine	5	2.3	60.0
Anoka	5	2.3	80.0
Sherburne	5	2.3	80.0
Hennepin	4	1.9	0.0
Wadena	3	1.4	66.7
Aitkin	2	0.9	0.0
Kanabec	2	0.9	0.0
Douglas	1	0.5	100.0
Freeborn	1	0.5	0.0
Kandiyohi	1	0.5	100.0
McLeod	1	0.5	0.0
Ottertail	1	0.5	0.0
Pope	1	0.5	0.0
Total	213	100.0	54.9

successful, those 11-15 feet high were 45% successful, those 16-20 feet high were 56% successful and those 21-30 feet high were 75% successful. There is no obvious correlation between increasing height of the house and its success with martins. Houses 21-30 feet high (the highest group) were the most successful at attracting martins while the lowest houses (8-10 feet) were the next most successful. Lower heights may allow people to clean their houses and remove sparrow nests more often thereby increasing their success.

Jackson and Tate (1974) reported that the height of the house had no significant effect on the rate of occupancy by martins in Mississippi. However, houses that are "managed" (i.e., sparrow and starling nests removed) are more likely to be successful at attracting martins (Brown 1981b).

WOOD VERSUS ALUMINUM

Most of the participants (84.2%) had wood houses while the remainder had houses made of aluminum (Table 2). This is most likely a result of the higher cost of buying aready-made aluminum house compared to the cost of making one with wood. The aluminum house, however, has several advantages. It is lighter in weight and can be raised and lowered easily to clean and remove sparrow nests. It also seems to be less attractive to starlings (see section on Sparrows, Starlings and Swallows).

Of 297 martin houses, 167 (56.2%) were occupied by nesting Purple Martins. Martins nested in 54.0% of the wood houses and 68.1% of the aluminum houses. There seems to be a slight preference for aluminum houses. Although Brown (1981a) found similar nesting success in aluminum and properly built wooden houses, he still recommended aluminum houses from a management perspective.

RAILINGS

Only 45.9% of the wood houses were reported with railings compared with 69.9% of the aluminum houses. Many plans for wood houses do not include railings which are needed to prevent young birds from falling to the ground. Aluminum houses, however, are often manufactured with ledges and railings. Overall, 49.5% of the houses were reported as having railings.

On hot days the increasing heat inside a martin house forces the young birds out of the compartments and onto the ledges surrounding the house. Without railings, the young may fall and once on the ground become easy prey for predators and are seldom fed by their parents.

SPARROWS, STARLINGS AND SWALLOWS

House Sparrows, European Starlings and Tree Swallows were also reported as residents of Purple Martin houses (Table 3). The House Sparrow was the species most commonly reported using 74.4% of the wood houses but only 44.7% of the aluminum houses. Starlings also nested more frequently in wood houses (Jackson and Tate 1974) while Tree Swallows used both wood and aluminum houses similarly.

Sparrows were reported nesting in the same house with martins 77.0% of the time in wood houses but only 50.0% of the time in aluminum houses. Starlings nested with martins in 7.4% of the wood houses. There was only one report of starlings nesting with martins in an aluminum house. Tree Swallows

Table 2. A comparison of wood and aluminum martin houses.

type of house	number of houses (%)	number with martins (%)	number of houses with railings (%)[a]
Wood	250 (84.2)	135 (54.0)	113 (45.9)
Aluminum	47 (15.8)	32 (68.1)	31 (68.9)
TOTAL	297 (100.0)	167 (56.2)	144 (49.5)

[a] Percentages of houses with railings computed from 246 wood houses and 45 aluminum houses.

were not reported nesting with martins even though they nested in 6.0% of all the houses. It appears that martins will tolerate some sparrows in their houses but will seldom nest with starlings or Tree Swallows (Brown 1981b, Jackson et.al. 1982).

COLOR

White was the most common color of martin house reported with 184 houses (Table 4). Another 38 houses were described as being white but having another color trim or roof. Several other colors were reported in the survey; yellow, green, red, natural (unpainted) and brown. Four other colors (silver, gray, pink, and black) were put together into one group, "other colors" in another because of their small sample sizes.

Houses that were white or white with another color had the highest percentages of martin occupancy with 62.5% and 63.2%, respectively. Yellow houses ranked close behind with 60.0% martin occupancy. Green houses had a 55.5% martin occupancy but the remaining colors were all below 50.0%. The white and lighter-colored houses are probably more attractive to martins because they reflect more light and are cooler.

House Sparrows nested in all colors of houses and ranged from 55.5% of the green houses to 100% of the yellow houses. Star lings were more prevalent in dark colored houses nesting in 14.3%, 13.3%, and 23.1% of the red, natural, and brown houses, respectively. The "other colors" group reported a 66.7% starling use rate, much higher than any of the other color groups or the average. The lighter-colored houses had approximately 10% or less as a rate of starling use. Tree Swallows nested in most colors of houses but had the highest use rate in green, red, and natural.

LOCATION

The location of the house is considered one of the most important factors in attracting Purple Martins. There was little difference in success at attracting Purple Martins between country or city locations; both have about a 50% success rate (Table 5). If the martin house was located near water, this success rate rises to 62.0% If the house was placed in the open, away from trees and buildings, there is an increase in the success with Purple Martins ranging from 58.3% in the city, to 68.4% if the house is near water.

If we compare only white houses placed in the open, success with martins again increases in all the locations with those in the country reaching 73.3%, near water 70.4%, and those in the city increasing to 61.1%. Obviously, placing the house in the open and painting it white will increase the success of the house to attract martins. It is not necessary to be near water to be successful at attracting martins.

Table 3. A comparison of House Sparrow, European Starling, and Tree Swallow use of wood and aluminum martin houses.

type of house	House Sparrow (%)[a]	European starling (%)	Tree Swallow
Wood			
all houses	186 (74.4)	32 (12.8)	15 (6.0)
with martins	104 (77.0)	10 (7.4)	0 -
Aluminum			
all houses	21 (44.7)	1 (2.1)	3 (6.4)
with martins	16 (50.0)	1 (3.1)	0 -
TOTAL			
all houses	207 (69.7)	33 (11.1)	18 (6.0)
with martins	120 (71.9)	11 (6.6)	0 -

[a] Percentages of houses used by House Sparrow, European Starling and Tree Swallow computed from 297 houses total and 167 houses with nesting Purple Martins.

Table 4. Use of martin houses by color.

color	houses	Purple Martins (%)	House Sparrows (%)	European Starlings (%)	Tree Swallows (%)
White	184	115 (62.5)	124 (67.4)	18 (9.8)	11 (6.0)
White with another color	38	24 (63.2)	28 (73.7)	4 (10.5)	1 (2.6)
Yellow	5	3 (60.0)	5 (100.0)	0 -	0 -
Green	9	5 (55.5)	5 (55.5)	0 -	2 (22.2)
Red	14	6 (42.9)	12 (85.7)	2 (14.3)	2 (14.3)
Natural	15	5 (38.5)	9 (60.0)	2 (13.3)	2 (13.3)
Brown	13	3 (23.1)	8 (61.5)	3 (23.1)	1 (7.7)
Other colors	6	1 (16.7)	5 (83.3)	4 (66.7)	0 -
TOTAL	284	162 (57.0)	196 (69.0)	33 (11.6)	19 (6.7)

RECOMMENDATIONS

1. Place your martin house in an open area at least 25 feet away from trees and buildings, preferably farther. The more open the area the better. Martins like room to swoop and fly around their house.

2. Place the house at least 8 feet high but not so high that it is inaccessible and impossible to clean. Houses should be low enough to reach with a ladder or lightweight enough to permit easy raising and lowering.

3. Paint the house a light color, preferably all white or white with another color trim and roof. White is the coolest color regardless of the material the house is made of.

4. Each compartment should be at least $6 \times 6 \times 6$ inches in size and each house should contain at least 6 compartments. Perches should be at least 3½ inches wide, entrance holes from 2-2¼ inches in diameter with the bottom not more than one inch above the floor.

5. Provide adequate ventilation within the compartments with ½ inch hole drilled in each unit for cross currents and ventilation shafts up through the interiors of large houses.

6. Interiors of compartments should be light in color to help discourage starlings. Starlings rarely nest in bright shiny interiors of aluminum houses, preferring darker quarters.

7. Porches should be edged with railings or guard barriers to prevent young birds from falling prematurely to the ground.

8. At the end of the nesting season, martin houses should be cleaned, and then put into storage or they should have all their holes plugged. Do not let your martin houses become a sparrow-slum during the winter.

9. Remove sparrow nests as often as possible by pulling them out with a wire hook. Martins will tolerate 1 or 2 pairs of sparrows but may be chased away by larger groups. Martins often need help the first season in competing for nesting sites, but in following years they are more possessive about their

Table 5. The percentage of houses successfully attracting Purple Martins compared by location, whether the house was in an open acre and whether it was also painted white.

	Percentage of houses attracting Purple Martins (# houses in sample)		
LOCATION	All Houses	Houses in the Open	White Houses in the Open
City	50.0 (50)	58.3 (24)	61.1 (18)
Country	51.0 (100)	64.3 (56)	73.3 (30)
Near Water	62.0 (150)	68.4 (98)	70.4 (71)
All Locations	56.3 (300)	65.7 (178)	69.7 (119)
(Total # Houses)			

chosen home and will usually hold their own with House Sparrows. If you have large numbers of sparrows, it may be necessary to trap and remove them.

10. Remove starling nests immediately. Martins will seldom nest in the same house with the aggressive starling.

11. In the spring before the martins arrive, place a handful of sawdust in each compartment.

12. If young birds fall to the ground prematurely, it is best to try to return them to the nest even if you are uncertain as to which nest the bird fell from. If the young bird is repeatedly rejected, then it can be forcefed with bits of hamburger, egg yolk, insects, or other high protein foods.

LITERATURE CITED

Arbib, R. 1978. The Blue List for 1979. Am. Birds 32:1106-1113.

Bent, A.C. 1942. Life histories of North American Flycatchers, larks, swallows, and their allies. U.S. Nath. Mus. Bull. 179:496-497.

Brown, C.R. 1981a. Reproductive success of Purple Martins in aluminum versus wooden birdhouses. J. Field Ornith. 52:148-149.

------- 1981b. The impact of starlings on Purple Martin populations in unmanaged colonies. Am. Birds 35:266-268.

Jackson, J.A., B.R. Schardien, O.H. Dakin, and G.C. Kuleza. 1982. Interactions between Purple Martins, **Progne subis**, and Tree Swallow, **Iridoprocne bicolor**, in Quebec. Can. Field Nat. 96:355-357.

Jackson, J.A., and J. Tate, Jr. 1974. An analysis of nest box use by Purple Martins. Wilson Bull. 86:435-449.

Kale, H.W., II. 1968. The relationship of Purple Martins to mosquito control. Auk 85:654-661.

Mayfield, H.F. 1969. Purple Martin population changes over 15 years. Auk 86:522-528.

[1] **Nongame Wildlife Program, Minnesota Department of Natural Resources, 1601 Minnesota Drive, Brainerd, MN 56401**

[2] **Route 2, St. Joseph, MN 56374**

THANK YOU

The drawings on pages 76, 99 and 100 were kindly donated by Gary Swanson. The editorial staff is grateful to Gary for these fine drawings.

CORRECTIONS

The front cover photo of the Common Loon, Volume 59 - Number 1 was inadvertantly credited to Richard E. Ferguson. It should have been credited to Robert O. Ferguson of 111 Cottage Grove Ave. S.E., Cedar Rapids, IA 52403. My sincere apologies to Mr. Robert O. Ferguson. –Editor.

The photo of the Common Barn Owl, Volume 59, page 48 should have been credited to Andy Martin and not Mark Martell. –Editor.

BOOK REVIEWS

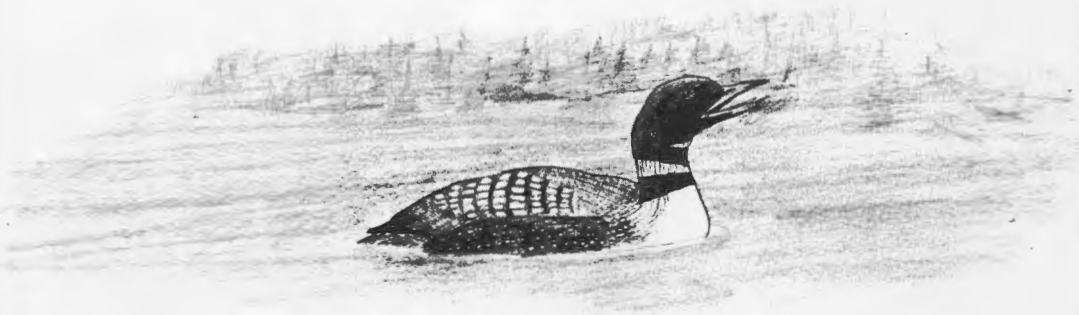
PARROTS' WOOD by Erma J. Fisk, W. W. Norton & Company, New York, 1985; 240 pages, $15.95.
BIRDWATCHING WITH AMERICAN WOMEN, A Selection of Nature Writings, edited by Deborah Strom, W. W. Norton & Company, New York, 1986; 286 pages, $17.95.
A WORLD OF WATCHERS by Joseph Kastner, with illustrations from the work of Louis Agassiz Fuertes, Alfred A. Knopf, New York, 1986; 241 pages, $25.

If, like Ray Glassel, you made a New Year's resolution to do more birding, you probably won't have the time to read all three of the books reviewed below. If you only have time for one, my recommendation is to read and enjoy Erma Fisk's gem, **Parrots' Wood**; if you have time for two, then read Deborah Strom's **Birdwatching with American Women**; and if you are stranded in an airport on your way to, say, Attu, kill an hour or two on the Kastner book.

Parrots' Wood is, on the surface, a journal of Mrs. Fisk's month of ornithological study in Belize, Central America for the Manomet Bird Observatory. But on every page, it is much more than an account of the actual work done; it is a sharing with the reader of her life experiences, and the wisdom she gained in the doing, that she presents with welcome honesty. Her writing style is unique, her own, and may take the reader a little getting used to. But that done, she lets us into her life, her thoughts, her loves and gives us much to dwell on. You may want to read the book a second time, as I did; there's a lot there.

Birdwatching with American Women is a valuable little book containing brief biographical sketches of 18 women-birders preceding excerpts of their own writings. Each made a significant contribution to birding/ornithology in her own way and in her own time; Deborah Strom has compiled this anthology so that their importance will not be forgotten. Included are Althea Sherman, Florence Page Jaques, Helen Gere Cruickshank, and Helen Blackburn Hoover, each with ties to Minnesota.

Unlike the above mentioned book which uses prime sources (their own words), Joseph Kastner, in **A World of Watchers** gives us a **People** magazine overview of the early greats of American ornithology. It is questionable how much stock one can put in the validity of his data or his sources; e.g., he chooses to write of only a few Independent Midwesterners and, of these, two are Dr. Thomas Roberts and Dr. Johan C. Hvoslef — and he spells the latter's name wrong. (No typo, it's in the index the same way.) Would that he had dwelt less on the oddities, the curious, of the early world of birders, and given more space to the Arthur Allens, the Cleveland Bents, the Connie Hagars, and not ended his world with Roger Tory Peterson. A lot has changed in birding since the forties. This book is only vaguely relevant to birders of the eighties.—**Anne Marie Plunkett**



NOTES OF INTEREST

OVERWINTERING GULLS AT DULUTH, 1986-87 — Due primarily to the mild winter weather of this past season, one of the best assortments of gulls in years was present in and around Duluth from December 1986 through February 1987. From December into mid-January, especially at the Western Lake Superior Sanitary District Landfill (hereafter, the Duluth dump), as many as 400-500 gulls were in the area, but, during a very cold snap January 22-25, all the gulls apparently left the area, virtually overnight. However, about a week later, with the return of warmer weather, some gulls gradually reappeared, although during February no more than about 200 were ever seen. Most of the gulls were obviously Herrings, but as many as 17 Glaucous were counted by Mike Hendrickson at the dump Dec. 17 (I counted 15 there Feb. 17), and at least four different Thayer's were seen at one time or another (two, possibly three, first-winter birds, one second-winter bird, and one adult). Of primary interest, however, were the two Great Black-backed Gulls and three Iceland Gulls, which are described in full below. (At the time of this writing, February 28, no photos have yet been obtained of any of these gulls, due primarily to their only occasional and erratic presence at the dump, and because of their wary nature that usually precluded close enough approach for photography.)

Adult Great Black-backed Gull: This individual was observed on four dates (plus once in Superior, Wis., Jan. 10): it was first seen by me on an ice-flow on Lake Superior near downtown Duluth Dec. 15; Art Johnston and I saw it again at the dump Dec. 20 the day of the Duluth CBC; it was not seen again in Duluth until Feb. 17 when Jerry Maisel and I saw it at the dump; it was last seen Feb. 22 at the dump by John Hoogerheide. Besides this gull's blackish mantle and noticeably larger overall size than all adjacent Herring Gulls, its pale pink legs, white trailing edge to the wings, white apical spots on the primaries, pale iris, yellow bill with reddish spot on the gonys, and relative lack of brown winter head/neck streaking were all noted. (All other "black-backed" gulls in North America are either the same size or smaller than Herring Gull.)

First-winter Great Black-backed Gull: This gull was also seen on four dates, always at the dump: I first spotted it while birding with Mike Hendrickson and others on the MOU Birding Weekend Jan 10; I saw it again while with Bruce Fall, Bob Janssen and others on a Bell Museum field trip Jan. 17; it was next seen by Jerry Maisel and me Feb. 17; it was last seen Feb. 18 by Mark Stensaas. Most obvious about this gull was its obviously large size overall; as it stood among Herring Gulls, it was easily a head taller, and its all black bill was also clearly more massive than all adjacent Herring Gulls. Its mantle was heavily

"checkered" and looked darker overall than a first-winter Herring Gull, since the dark areas on its mantle feathers were brownish-black rather than brown. Also of note was the blackish sub-terminal band on the tail; the width of this band was about one-third the total length of the tail. The iris was dark, and the legs were pale pinkish.

Adult Iceland Gull: This gull was only observed once when I and others on a Victor Emanuel Nature Tour saw it at the dump Feb. 2; this individual may have been the same adult which had been in Grand Marais in December 1986. When first seen, it was on the ground with Herring Gulls, and it appeared to be just slightly smaller than they; its folded wing tips were white, and they extended beyond the tail a distance greater than the length of the bill. The mantle appeared to be the same shade of gray as the adjacent Herring Gulls (mantle color on adult Icelands varies between pale Glaucous Gull-gray to medium Herring Gull-gray). The iris was yellow, the legs pink, and the bill yellow (if there was a reddish spot on the gonys I did not see it); the bill and head also appeared slightly but noticeably smaller than the Herrings with it. When the gulls took flight, the Iceland looked even smaller than before compared to Herring Gulls flying with it, presumably because of its shorter wing span; also seen in flight was the white trailing edge on the wings and on the wing tips.

Third-winter Iceland Gull: this gull was seen on various dates at the dump between Dec. 17 and Jan. 10: it was first reported by Parker Backstrom, Bill Penning and Mark Stensaas. This bird was similar in all respects to the adult described above, with the following exceptions: its size was apparently smaller than the adult Iceland, since it always appeared smaller than all adjacent Herring Gulls at rest and in flight; its mantle was a paler shade of solid gray, similar to a Glaucous, but there were still a few areas of grayish-brown on the mantle feathers; the tip of the bill was blackish (the color of the base was never clearly seen); and the tail had a very pale wash of solid gray on the upper surface, almost like a broad tail band. This gull was clearly too small to be a Glaucous, and the solid pale gray color on the mantle was too pale for it to be a Thayer's (the wing tips, as well as trailing wing edges, were white, unlike a Thayer's).

Second-winter Iceland Gull: Finally, and more difficult to identify, was this individual; it was seen on various dates at the dump between Dec. 17 and Jan. 17; it was first reported by Mike Hendrickson (this may have been the same immature seen in Grand Marais in early December). This gull was also too small to be a Glaucous since it was just as small, if not smaller, than the third-winter Iceland. Its pale iris, solid pale gray coloration on the back, and two-toned bill (not a sharply delineated pink and black; the black distal half slightly blended in with the grayish-pink basal half) all indicated second-winter, rather than first-winter, plumage. The head, neck and underparts were all basically white. The upper wing coverts were mostly mottled, unlike the back, and the color was a pale grayish-buff; the upper surface of the flights feathers were more of a solid color and basically grayish-white, paler than the back or wing coverts. The inner primaries were a shade whiter than the rest of the flight feathers, and suggested the pattern of a first-winter Thayer's Gull; however, while this pattern may serve to separate Thayer's and Iceland in first-winter plumage, this was a second-winter bird. In addition, the overall mantle color was clearly paler than any Thayer's of any age I have ever seen, and the flight feathers were the palest part of the wings, unlike Thayer's of any age. A second-winter Thayer's was also present at the dump on some days for comparison. This gull, like the third-winter Iceland, had a solid, pale gray tail band; again, while this would tend to indicate Thayer's in first-winter plumage, this was a second-winter individual. (Note the mention and illustration in P. J. Grant's, **Gulls: A Guide to Identification**, Second Edition, of second-year and third-year Icelands and Glaucous with solid, pale gray areas on the upper tail surface.) **Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804.**

GOLDEN-CROWNED SPARROW IN CHIPPEWA COUNTY — On April 29, 1987, at 11:30 a.m., Roger was sitting at our kitchen table, watching birds in the trees and yard by our deck. White-throated Sparrows had been in our yard for two days and we were looking for White-crowned and Harris' Sparrows which often come at the same time. It was

a bright, sunny day. On a dead branch of a boxelder tree, about 25 feet directly in front of him, at eye level, Roger noticed an unfamiliar bird. He called me to come and see it. It was a brownish-gray bird about the size of a White-crowned Sparrow, but slimmer looking. The wide black stripe above the eye was obvious at first glance. Each of us then used 7×50 binoculars to observe it. It had a yellow crown patch - not bright - but definitely yellow. A fine eye ring was visible. The breast was gray-brown, the belly lighter, and the long tail and rump more brown than gray. Two wing bars were noted. After 4-5 minutes it flew away. We then consulted the **National Geographic Field Guide** and the **Audubon Master Guide** and concluded that it was a Golden-crowned Sparrow. Noting its western range, I then checked **Minnesota Birds** (Green/Janssen) and could not find it listed there. We had to leave for work and did no further checking then. Returning at 5 p.m.,. I saw the bird feeding on the ground by our bird feeders. We then noted the bill; darker on top with yellow on lower bill. It flew after 2 or 3 minutes. It was not until Thursday, April 30, that I read the Spring '87 ***The Loon*** predictions by Kim Eckert that I realized we had seen a possible state record. I stayed home to watch for the bird the next morning, but did not see it again. **Gretchen and Roger Johnson, Route 1, Box 46, Watson, MN 56295.**

Golden-crowned Sparrow, Minnesota's first record. April 29, 1987, near Watson, Chippewa County. Photo by Roger Johnson.

CLARK'S GREBE IN MINNESOTA — On May 2, 1987, Richard Ruhme and I found a Clark's Grebe on North Heron Lake, Jackson County. It was in a group of six Western Grebes which were feeding near the shoreline about 25 yards off shore. We were in the farmyard of Paul Hovland who calls his place "Pelican Paradise," exactly 2.5 miles south of Highway 60 on Jackson County Road 24. We were about 50 yards from shoreline with my 20 power Nikon scope so we were only about 75 yards from the birds. The sun was shining at the time in the southeast. We were viewing towards the southwest. Our field notes, taken before consulting the field guide (National Geographic Society Guide), include lighter flanks, eye below the black cap (remember — eye is fairly close to the bill,) and most striking was the bright, yellow-orange bill (vs. dull greenish-yellow Western Grebe bills). Mr. Hovland, who is aware of birds in his area, said he'd seen the Western Grebe with the eye below the cap but couldn't find it in his "Peterson" guide. He said birders are always welcome at his place. Since his view of the lake is unsurpassed it is well worth visiting. **Bill Pieper, 11731 Evergreen Circle, Coon Rapids, MN 55433.**

A CAROLINA WREN IN AUSTIN — The first day we noticed the Carolina Wren was November 19, 1986. Since that time it was seen intermittently (3 - 5 times per week) at our feeder and other feeders in the neighborhood; the last report I had of the bird was on March 3, 1987, when it was seen at the feeder of one of our neighbors. This bird liked our woodpile and visited three feeders in our yard; it especially liked suet but it did visit the sunflower and thistle feeders. The bird was active around our feeders in early January, especially during the early morning hours, when numerous birders had a chance to view him. He (we felt he was probably a male) was easy to identify with his rusty brown back, distinctive white eye-stripe, very buffy breast which was almost pinkish in bright sunlight. His tail was held almost upright in typical wren-like fashion. Size was approximately 5 - 5½ inches. On January 10, 1987, we heard him sing, a repetition of three notes. **Ed & Su Gibson, 2103 3rd Ave. S.W., Austin, MN 55912.**

MISSISSIPPI KITE IDENTIFICATION INFORMATION — In the Notes of Interest section of ***The Loon*** Vol. 58: 192-194 Anne Marie Plunkett recorded her observation of a Mississippi Kite in Fillmore County on August 19, 1986. Rick Blom of Bel Air, Maryland saw the article and wrote to Anne Marie concerning her remarks. The following are her remarks about the exchange of letters between her and Mr. Blom. —Editor.

When I received the letter from Rick Blom printed below, I wrote to him asking if I might share his observations and comments with readers of ***The Loon***; he generously consented. Eirik ("Rick") A. T. Blom and Jon L. Dunn were the Chief Consultants for the National Geographic Society **Field Guide to the Birds of North America. Anne Marie Plunkett, 2918 S. W. 15 Avenue; Rochester, MN 55902.**

February 12, 1987

Dear Ms. Plunkett:

I read with enjoyment your note in ***The Loon*** (Vol. 58) about the Mississippi Kite. My eye is always drawn to reports of Mississippi Kites, since I have been looking for one in Maryland for almost 15 years. Despite the fact that almost a dozen are found every year to the north of us, there is still no accepted record for the state. I can appreciate your excitement, if only vicariously. I only hope I have the chance to sample it first-hand someday.

I am writing because of your comment on the National Geographic guide and how we handled the problem of chestnut on the upperwing. You wrote that you had not yet figured out why we say the color is "sometimes" visible. You make a good point, and I would like to explain the reasoning behind the construction.

The main problem, as you can well imagine, is space. Any book that tries to cover all the birds in North America inevitably leaves out as much as it puts in. Many reviewers justifiably point out that the size is already too great for convenient field use. The space constraints results in the evolution of a sort of shorthand. One finds oneself deeply committed to words like "sometimes," "occasionally," and my favorite, the suffix "-ish" attached to almost every color description. The variation of birds, even among individuals of a monotypic species, is one of the true pleasures of our hobby. It is however, immensely frustrating when one is trying to write a field guide. Too often one tries to cover the variation in a word or a phrase. This is what happened to the Mississippi Kite account.

The problem is that not all Mississippi Kites show chestnut on the inner primaries. It appears to always be present on males over two years old. Females over two years old show chestnut, but it is not as extensive (on average) as on males. Younger birds of both sexes show none at all, even though they are otherwise inseparable from adults, at least after the molt to second-winter plumage. So it is not uncommon to see adult-like birds with no evidence of chestnut. North of the expected range available evidence suggests that the considerable majority of records refer to birds two years old or less, individuals on which no chestnut would normally be visible. That makes sense if one subscribes to the theory that most of these records involve non-breeding birds. That makes your record all the more

fascinating, since the plumage characters suggest (though only in-hand examination could confirm) that the bird was a male at least three years old.

It is obvious we could not have explained all of this in the text of the guide. Our solution was the word "sometimes," admittedly inelegant, but least likely to add to the problem. This way, it makes no difference if the character is seen or not; the guide won't suggest to the observer that an error has been made.

One of the real treats in birdwatching is a chance to go "beyond the field guide," a learning experience that only becomes available after experience has sharpened our judgment and perception. However, it is frustrating to find that it is often impossible to resolve the conflict between what is in the book and what is in our binoculars. To do so usually requires the resources and materials available in a good museum. Birders in Minnesota are luckier than most: ***The Loon*** is one of the best and most informative state journals.

Let me offer my (envious) congratulations again. This won't be the last time a field guide fails to explain the bird you see. Maybe that is why birdwatching never grows old. I suddenly realized, as I was typing that last sentence, that I have never met an ex-birdwatcher. What a terrific endorsement for our hobby!

Sincerely,
Eirik A.T. Blom
1618 Somerville Road
Bel Air, Maryland 21014

Anne Marie's response to Rick Blom is printed below.

2-17-87

Dear Rick:

Thank you, thank you, thank you. I love answers (albeit unexpected) to questions I can't resolve for myself. I hasten to say that I did not intend any negative criticism of National Geographic Guide for saying "sometimes." Quite the opposite, in fact, as I had combed other references (e.g., Audubon Master Guide, and A. C. Bent) and come up empty; only National Geographic makes reference to that field mark, and shows what I had seen in illustration. I had also spoken with the three other Minnesota birders who had seen a Mississippi Kite prior to my sighting of the bird with the chestnut, and none had seen that field mark. Nor had I, on the Kite I had seen earlier on May 13, 1986. (Did you see ***The Loon*** - Vol. 58. I have a report on page 134, and there is one of Ray Glassel's on page 140.).

My only criticism of the Guide is that it doesn't fit in my pocket, and is a little large for my small hands. None-the-less, it goes wherever I wander. Now, another question - for you. I would very much like to share the good information in your letter to me with other Minnesota birders. I read it to Bob Janssen over the phone, and he agreed that it would be fine to print it in ***The Loon*** , if you are agreeable to that. Not only the information about the Kite, but your remarks about the use of "sometimes" is most enlightening. Both Bob and I especially like your closing remarks!

So, in hopes, I am enclosing a photocopy of your letter back to you, in case you didn't keep a copy, and in case there's something you want to edit. It's been nice meeting you via correspondence; I look forward to meeting you sometime in person.

Sincerely,
Anne Marie Plunkett

. . . and finally Rick Blom's response of 2-25-87:

Dear Anne Marie:

I'm flattered that you and Bob Janssen feel my letter might be of interest to other birdwatchers. Please feel free to use it in any manner you feel is appropriate. . .

I note with anticipation and trepidation that **two** new field guides to the identification of hawks are about to hit the market. Anticipation because the authors, Bill Clark and Pete Dunne are both experts and the books should be terrific. Trepidation because both clearly know much more about this group than I do and I am sure the last word on the plumages of Mississippi Kites has not been heard.

Thanks for your letter. I hope that when Julie and I get to Minnesota some day we'll have

a chance to share some of your favorite spots.

Sincerely,
Rick Blom

A most interesting exchange of information which points up: 1) the care that should be taken in using the current field guides; 2) the willingness of the experts to share information with other birders and their value as prime sources of good information. The Editor.

A WINTER TURKEY VULTURE — Ellis and I were driving toward Mankato from Mountain Lake on Route #60 at about 11 o'clock A. M. on January 17, 1987. In the distance directly ahead of us we saw a large black bird approaching us flying low, barely flapping its wings, much too slow to be a crow. The wing span made us think of an eagle. We noticed the slightly upturned wing tips as it glided. The long wings appeared two-toned. The wing linings were black and the flight feathers were greyish. The primaries were very obviously separated. We suspected a Turkey Vulture. We pulled off to the berm and stopped. He passed to our right near the road where the field begins at the height of perhaps 35 feet. It was a partly cloudy day, so the sun did not interfere with our view. At this point Edna had a look with her 8 × 40 binoculars and observed again the distinctive silver band across the under part of the wings. We now saw the profile of the small head. Our 80 year old uncle was sitting in the back seat on the right side and exclaimed, "Buzzard!" The bird disappeared toward the southwest. We had observed him for about two mintues. We checked in our field guide, **Birds of North America**. We were confident that we had seen a turkey vulture. We then started to drive again and crossed the intersection with Blue Earth county road #116. It bothered us that we did not see a red head. We checked our field guide and verified that the head of the Turkey Vulture may be dark depending on the maturity of the bird. We wondered if the mild weather of this winter had anything to do with him being here at this time of the year. We realized that this was an unusual observation. I had noted in my diary on Janrauy 17: "We saw a Turkey Vulture on the way to Mankato. This is an unusual sighting as they are out of season and out of range. We rarely see them around here even in the summer." Ellis, in his boyhood days on the farm in Ohio, was acquainted with the "turkey buzzard." We have seen both the Turkey Vulture and the Black Vulture in our travels in the south. On January 26, Loren and Buddy Feil saw a large bird sitting on a telephone pole on the North side of the Highway #60 freeway near the Minneopa Park sign. They crossed the median strip to head in the opposite direction in order to see him better. He took flight before they could make a positive identification. They had no binoculars with them but they suspected they had possibly seen the same bird we saw a week earlier. He was in the same general area. **Ellis and Edna Gerber, Box 286, Mountain Lake, MN 56159**

Great Gray Owl Nesting Activity

Bob Bohm of Minnesota Power in Duluth has placed artificial nest platforms for Great Gray Owls in the Floodwood area of southern St. Louis County.

The following are the yearly results:

1983 - 3 used out of 43 platforms
1984 - 9 used out of 43 platforms
1985 - 0 used out of 43 platforms
1986 - 2 used out of 12 platforms

This information is from a talk given by Mr. Bohm to the Duluth Audubon Society on March 12, 1987.

Birding is the Answer
Part I

Robert B. Janssen

Over the past 35 years, I have had the privilege of traveling around the state of Minnesota with this area's most competant and enthusiastic birders: Ray Glassel, Kim Eckert, Janet Green, Liz Campbell, Bill Pieper, Paul Egeland, Don Bolduc, Fred Lesher, Jo and Steve Blanich, Anne Marie Plunkett and the late Brother Theodore Voelker. During this period, I have travelled well over a million miles within the boundaries of Minnesota to every nook and cranny in the state; to every town, village or hamlet with a place name; to hundreds, if not thousands of lakes, marshes, sloughs, rivers, streams, prairies, backyards, and, of course, to one of my favorite birding spots — sewage ponds. To reach each of these places, it has required many early awakenings (a prerequisite of birding is the loss of much sleep in one's lifetime!). Hundreds of hours have been spent driving in the dark, through wind (the nemisis of birders), through rain, snow, sleet, ice and happily, many days of gorgeous clear skies, calm winds and beautiful sunrises and sunsets. What beauty the late sleepers miss!

A few of my favorite early mornings were: first, a recent spring day while I was on my way to Rochester; the air was crystal clear: it was warm and there was just a faint predawn light in the East. The crescent moon hung in the eastern sky with the planet Mars attached like a jewel to the upper part of the crescent. One other experience was the most memorable sunrise I have ever witnessed: it took place in a remote area of Marshall County (where UFO's have been reported!). The time of which I write was several years ago now, in the spring. The broken clouds filtered the rays of the sun with a rainbow of colors and the clouds appeared as a stairway to "heaven:" below, a Whip-poor-will gave its final call before retiring for the day, and a cow Moose scampered across the road accompanied by her small calf.

And one last morning I want to tell you about: a memorable August 1: after an evening of discussion with the Catholic Brothers at St. Mary's College in Winona, Brother Theodore awakened me hours before dawn (I guess it was about 2:45 A.M.). We drove north along the Mississippi River into Wabasha County, and turned into a dirt road that led to the uplands. It was pitch black, with only the faintest light in the East. He said, "Listen," and listen we did for over an hour; we sat in silence, but the dawn chorus of birds starting out slowly got continuously louder and louder until it reached a pitch near dawn that reminded me of a Beethoven symphony.

During these years of birding, I have spent the most time with Ray Glassel. In the early hours of the morning, we have talked of many things; of course the major topic has been birding and our expectations for the day. However, much of the time has been spent on other subjects: people, politics, religion, work, wives, children, money, the state of the world, and such topics which we humans discuss and gossip about. Through these conversations, one thread has woven its way into each discussion, and that thread is: Birding is the answer. No matter what the state of mind, the state of the world, the state of relationships, problems at work, problems at home, who killed who, who started a war, what was man's latest episode in destroying our world and its ecology — no matter how bad or how good everything was, and on into infinity — it seemed to us that the personal solution, answer or just peace of mind always came out "Birding is the answer;" or at the very least, Birding is going to help.

Some of you, probably a good many of you reading these comments will react by saying, "Janssen has gone bonkers; he is starting a new religion with two members!" You

may ask, how can birding be an influence or a solution to such profound problems. There is God, religion, our professions, love, care and concern, and many other human passions, which come way before birding as a balm for today's problems. Yes, that certainly may be true; but birding touches on all of these. Let me cite some examples. What better attempt at understanding the creation than through birds; they put you in touch with the universe; the universe is God, and God is the universe (creation). Another example: many occupations today are stressful (Just look at the health of many Americans today). What better way to meet the demands of a day than an early morning or evening walk in the woods, or around a marsh, listening to and looking at birds and the world about you — a great stress reliever.

And one more example. Love, care and concern: what a way birding is to develop and nurture these attributes; a love of earth, the land, the water, the total environment, is gained through birding. It puts us in touch with, at the very least, a small portion of the universe. How many of your daily activities do this for you. Birding provides us with the opportunity to "rub shoulders" with many interesting, loving and caring people — people who enjoy and love nature, people who are growing and expanding their horizons; what an interesting group! And what a privilege it is to interact with them.

Yes, birding is the answer — probably not to everything in this world — but it sure **helps** with most everything. Try more of it, and let me know if you find that, for you too, Birding is the answer . . .

News Release - Chippewa National Forest

The Staff of Chippewa National Forest is pleased to report two wildlife milestones in the Forest. The first is that during the 1987 Spring Bald Eagle Survey, 125 breeding pairs of eagles were located. This is a record number for the Forest, which already holds the highest breeding density of Bald Eagles in the continental United States.

Secondly, a pair of breeding Trumpeter Swans was discovered during the eagle survey. Populations of Trumpeters have been near the extinction level throughout its range, and have been absent from Minnesota for over a hundred years. These birds are the only breeding Trumpeter Swans outside of the Hennepin County flock. The Chippewa pair, which were originally from this flock, had four offspring last year.

Trumpeters were transplanted to the Detroit Lakes area by MN DNR a few weeks ago, May 1987, but the Chippewa swans are the only pair to choose their home on their own. National Forest biologists are enthusiastic because the site chosen by the swans is one of 43 impoundments constructed in the Forest.

PURPOSE OF THE MOU

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 promote the preservation of birdlife and its natural habitat.

We carry out these aims through the publishing of a magazine, ***The Loon***; sponsoring and encouraging the preservation of natural areas; conducting field trips; and holding seminars where research reports, unusual observations and conservation discussions are presented. We are supported by dues from individual members and affiliated clubs and by special gifts. The MOU officers wish to point out to those interested in bird conservation 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*** invite you to submit articles, shorter "Notes of Interest" and color and black/white photos. Photos should be preferably 5x7 in size. Manuscripts should be typewritten, double-spaced and on one side of sheet with generous margins. Notes of Interest should be generally less than two typewritten pages double-spaced. If reprints are desired the author should so specify indicating the number required. A price quotation on reprints will be sent upon receipt of information.

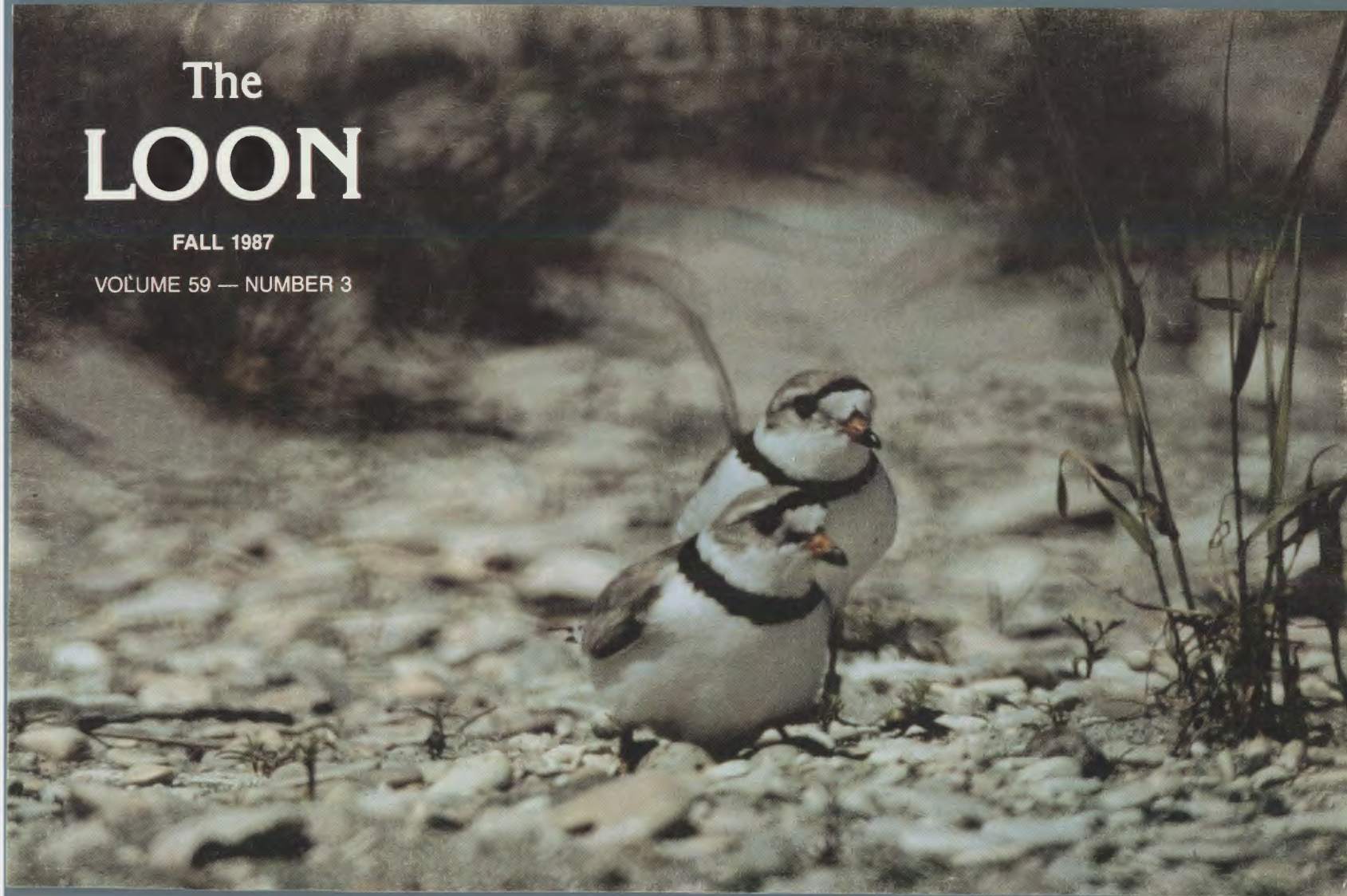
Club information and announcements of general interest should be sent to the Newsletter editor. See inside front cover. Bird-sighting reports for "The Season" should be sent promptly at the end of February, May, July and November to Kim Eckert. See inside front cover.

TABLE OF CONTENTS

The LOON

FALL 1987

VOLUME 59 — NUMBER 3



The LOON Minnesota's magazine of birds, is published four times each year by the **Minnesota Ornithologists' Union,** the statewide bird club. Permanent address: J. F. Bell Museum of Natural History, 10 Church St. S.E., University of Minnesota, Minneapolis, MN 55455-0104. Anyone interested in birds may join. Any organization with similar aims may affiliate. All MOU members receive our two quarterly publications: ***The Loon*** and the **MOU Newsletter.**

MEMBERSHIPS AND SUBSCRIPTIONS: Evelyn Stanley, 213 Janalyn Circle, Minneapolis, Minnesota 55416. To join the MOU and receive both MOU publications, donate $12.50 for a regular yearly subscription. Or other classes of membership that you may choose are: Family $15.00 yearly; Supporting $20.00 yearly; Sustaining $30 yearly; Life $150. Canadian and Foreign Subscriptions, $20.00 yearly. **All memberships are on a calendar year basis.** Also available: back issues of ***The Loon*** ($3.00 each ppd.) and MOU checklists of Minnesota birds (minimum lots of 20 for $5.00 postage paid). Gifts, bequests, and contributions to the MOU Endowment Fund should also be sent to the treasurer.

EDITOR OF *THE LOON*: Robert B. Janssen, 10521 S. Cedar Lake Rd., #212, Minnetonka, MN 55343 (phone 612-546-4220). The editor invites articles, short notes, and illustrations about Minnesota birds. See back cover for details. **Associate Editors: Kim R. Eckert, 9735 North Shore Dr. Duluth, MN 55804; Anne Marie Plunkett, 2918 S.W. 15th Ave., Rochester, MN 55902; Dr. Harrison Tordoff, Bell Museum of Natural History, University of Minnesota, Minneapolis, MN 55455.**

"The Season" section of ***The Loon*** publishes reports of bird sightings 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 to "The Season," request the report forms from the **EDITOR OF "THE SEASON," Kim Eckert, 9735 North Shore Drive, Duluth, Minnesota 55804 (phone 218-525-6930).**

EDITOR OF THE MOU NEWSLETTER: Bette Bell, 5868 Pioneer Rd. S., St. Paul Park, MN 55071. Publishes announcements and reports about activities of the MOU and its affiliated clubs. (Club officers should keep both MOU editors informed.)

MOU OFFICERS

PRESIDENT: Bob Holtz, 2997 N. Chatsworth, St. Paul, MN 55113.

FIRST VICE PRESIDENT: Jo Blanich, Box 96, Crosby, MN 56441

SECOND VICE PRESIDENT: Mike Mulligan, 8501 Tiqua Circle, Chanhassen, MN 55317

SECRETARY: Marion Cashdollar, 9400 Cedar Ave. #102, Bloomington, MN 55420.

TREASURER: Ed Kuehnel, 2731 Mackubin St., #39, Roseville, MN 55113

MOU COMMITTEE CHAIRPERSONS

MINNESOTA ORNITHOLOGICAL RECORDS (M.O.R.C.): Robert B. Janssen, 10521 S. Cedar Lake Rd. #212, Minnetonka 55343. RESEARCH AND RECORDS: Janet C. Green, 10550 Old North Shore Rd., Duluth 55804. FIELD TRIPS: Marilyn Lancaster, 1860 S. Mississippi Blvd., St. Paul 55116. MEMBERSHIPS: Evelyn Stanley, 213 Janalyn Circle, Minneapolis 55416. NOMINATIONS: Kathy Heidel, 5085 Meadville St., Excelsior 55331. UNIVERSITY COORDINATION: Dr. Harrison Tordoff, Bell Museum of Natural History, Univ. of Minnesota, Minneapolis 55455. THOMAS ROBERTS AWARD: Doug Campbell, 4917 Russell Ave., Minneapolis 55410. SLIDE FILE LIBRARY: Wayne Peterson, 5812 Admiral Lane, Brooklyn Center 55429. HISTORIAN: Oscar Johnson, 7733 Florida Ave., Brooklyn Park 55455.

AFFILIATED CLUBS OF THE MINNESOTA ORNITHOLOGISTS' UNION

AGASSIZ AUDUBON SOCIETY
President: Steve Nelson, 406 S. Progress
Warren, MN 56762

ALBERT LEA AUDUBON SOCIETY
President: Mary Ann Dixen, 1428 Martin Rd.
Albert Lea, MN 56007

AUDUBON CHAPTER OF FARGO-MOORHEAD
President: Carol Sparbeck, 2834 N. 2nd St.
Fargo, ND 58102

AUDUBON CHAPTER OF MINNEAPOLIS
President: Jo Ellen Warolin, 2138 Centerview Lane
Mound, MN 55364

AUSTIN AUDUBON SOCIETY
President: Dorothy Owens, 2104 W. Oakland Ave.
Austin, MN 55912

BEE-NAY-SHE COUNCIL
President: Steve Blanich, P.O. Box 96
Crosby, MN 56441

CENTRAL MINNESOTA AUDUBON SOCIETY
President: Craig Lee, P.O. Box 753
St. Cloud, MN 56301

COTTONWOOD COUNTY BIRD CLUB
President: Ellis Gerber, 320 N. 12th St.
Mountain Lake, MN 56159

DULUTH AUDUBON SOCIETY
President: Doug Johnson, 427 N. 16th Ave. E.
Duluth, MN 55812

JACKSON COUNTY BIRD CLUB
President: Maureen Hendrickson, Box 394,
Lakefield, MN 56150

HIAWATHA VALLEY BIRD CLUB
President: Dave Palmquist, 84 Fairfax St.,
Winona, MN 55987

LE SUEUR VALLEY BIRD CLUB
President: Marie Wierwill, 506 S. Main,
LeSueur, MN 56058

MANKATO BIRD CLUB
President: Larry Filter, 604 Lakeview
North Mankato, MN 56001

MINNEAPOLIS AUDUBON SOCIETY
President: Donald H. Wheeler, 1425 W. 28th St., #609
Minneapolis, MN 55408

MINNESOTA BIRD CLUB
President: Wally Jiracek, 10112 Dupont Ave. S.,
Bloomington, MN 55431

MINNESOTA RIVER VALLEY AUDUBON CLUB
President: Joe White, 9028 Kell Circle
Bloomington, MN 55431

MISSISSIPPI HEADWATERS AUDUBON SOCIETY
President: James Elwell, Rt. 8, Box 479
Bemidji, MN 56601

ROSEVILLE BIRD CLUB
President: Margaret E. Kehr, 988 W. Co. Rd. D
St. Paul, MN 55112

ST. PAUL AUDUBON SOCIETY
President: Carole Brysky, 277 E. Morton
St. Paul, MN 55106

WILD RIVERS AUDUBON SOCIETY
Box 266
Chisago City, MN 55013

WILDERNESS HERITAGE AUDUBON CHAPTER
President: Art Norton, Star Rt. Box 12,
Warba, MN 55793

ZUMBRO VALLEY AUDUBON SOCIETY
President: Jo Theye, Rt. 3,
Rochester MN 55904

Minnesota's First Garganey

Ray Glassel

On April 29, 1987, I discovered a male Garganey (*Anas querqidula*) at Goose Lake, Waseca County. Fortunately the bird remained in the area for four days (last seen May 2nd), and, although it was too far away for anyone to photograph it, it was well documented by at least 30 observers. Since there is no question as to the proper identification of this well marked species, the question remains, was it a bona-fide wild bird? This, of course, can never be positively ascertained, but I would like to set forth some of the arguments as to why it probably was a legitimate wild bird, far from its normal range.

The Garganey breeds widely across Eurasia from Iceland to northeast Asia. The European birds winter south to north-central Africa and the Asian birds south to the Phillipines and Malaysia. Strays have turned up in the Hawaiian Islands, Midway and Wake Islands. It is a regular spring and fall migrant in the Aleutian Islands and casual there in the summer, with the first nesting recorded on Attu during the summer of 1987. There was a large number of Garganeys recorded in the Aleutians and on the Pribilof Islands during the spring of 1987. (Personal communication with Terry Savaloja.) In midwestern and western North America there are spring records for Texas, Kansas, Missouri, Illinois, Manitoba, Alberta, British Columbia (3) and California (4). Garrett and Dunn, speaking of Garganeys, state: "Transients have been recorded in Hawaii, the Pacific Northwest and western Mexico. This highly migratory species seems quite capable of reaching Southern California as a vagrant." In The Changing Season summary in *American Birds* Vol. 38, Number 5, Don Robertson speaking of evaluating records writes: "We read this spring about a Garganey in British Columbia on May 23-24. Garganeys are kept in captivity, so a reviewer must evaluate the possibility of them being an escape from captivity. But when one reviews this record with an eye to the larger area, where there is now a very well documented pattern of Garganeys at about 30 degrees north in March, about 40 degrees north in April and about 50 degrees north in May (latitude of British Columbia) we find this record fits perfectly into this pattern and the balance must tip toward it being a genuine vagrant." Waseca County is at approximately 44 degrees north latitude. Dick Ryan, in his article on waterfowl escapes, lists the Garganey in Category II which is defined as species rare and expensive but kept by several breeders. He states that any records stand a good chance of being genuinely wild birds when observed in a wild state, but caution and investigation is urged. In light of the above information, as to range, and occurrence in North America, the time of year and the length of stay of the Minnesota bird, I feel the Waseca Garganey is a very good candidate for an addition to the Minnesota state list.

Literature Cited

Garrett and Dunn. 1981. **Birds of Southern California** p. 112.

Roberson, Don. 1980. **Rare Birds of the West Coast.**

— 1984 The Changing Season. **American Birds** 38:881.

Ryan, Dick. 1972. A guide to North American Waterfowl Escapes. **Birding** 4-159-160.

8219 Wentworth Ave., Bloomington, MN 55420.

Editors Note: As Ray Glassel states above, numerous observers saw the Garganey during its stay (April 29 to May 2) on Goose Lake, Waseca County. The record was submitted to the Minnesota Ornithological Records Committee (M.O.R.C.) and several of the members felt the record should be placed in the Ab category (species for which there is no specimen, photograph, or tape recording but for which there have been sight records substantiated by written documentation unanimously accepted by the Records Committee) and several felt it should be placed in the Ac category (species for which there is a question as to the origin or wildness of the bird). The official status will be determined by M.O.R.C. at a later date.

Garganey, 29 April 1987, Goose Lake, Waseca County. Drawn by Ray Glassel.

Population Studies of Piping Plovers at Lake of the Woods, Minnesota, 1982-1987

Susan M. Haig and Lewis W. Oring

INTRODUCTION

The Piping Plover (*Charadrius melodus*) is a cryptic, sand-colored shorebird that nests in pebble-lined scrapes on pristine North American beaches. In 1985, the species was classified as endangered in Canada (Haig 1985), threatened on the Atlantic coast and prairies of the United States, and endangered in the Great Lakes of the U.S. (Sidle 1985). The species' precarious status stems primarily from widespread development of beach habitat; stabilization of water levels that facilitate constant washing out of nests, or drought conditions where vegetation encroachment renders nest sites unsuitable; and the birds' sensitivity to the presence of humans near nests (Haig and Oring 1985, Dyer et al. 1987, Haig et al. 1987).

Piping Plovers at Lake of the Woods, Minnesota, are classified as threatened and represent a unique population occupying a critical geographic location in the species' distribution (Haig 1987). The northwestern Minnesota sites provide an important link between Piping Plovers on the Great lakes, birds on Manitoba lakes, and those in adjacent prairie sites. Recent disappearance of breeding Piping Plovers in Wisconsin (Haig et al. 1987), and continued reproductive failure of birds at the Duluth Port Terminal (L. Pfannmuller, pers. comm.) further illustrate the importance of the Lake of the Woods breeding sites. Finally, Lake of the Woods birds represent the only viable population of Piping Plovers in Minnesota.

Recognizing the importance of Piping Plovers at Lake of the Woods, the Minnesota Department of Natural Resources was one of the first state or provincial agencies to protect the birds and investigate factors limiting their success. To date, research and conservation activities at Lake of the Woods represents one of the longest term Piping Plover protection efforts in North America. Since 1982, Piping Plovers have been studied at six sites at Lake of the Woods (Wiens 1986, Oring and Haig 1986). Initial work concentrated on collection of individual life history data, while research carried out over the past three years focused on monitoring the population as a whole. Information presented in this paper utilizes data from 1982-84 to gain perspective on results from 1985-87.

STUDY AREA AND METHODS

The study was conducted on the southern barrier islands and mainland beaches of Lake of the Woods, Lake of the Woods County, Minnesota (specific locations are described and mapped in Wiens and Cuthbert 1984, Wiens 1986). Since 1985, we have monitored population trends, reproductive success, dispersal patterns, and causes of disturbance to the birds on Morris Point, Zippel Bay, as well as Pine and Curry Islands.

Each year, all adults and fledgling chicks were given individual color band combinations including an international flag (following Haig et al. 1987) to facilitate recognition of birds throughout the annual cycle. During 1985-87, four trips of four days each were made to the study areas during peak arrival, incubation, hatch, and fledging. During every visit, each area was censused, breeding pair combinations were noted, and the status of nests were determined.

RESULTS AND DISCUSSION

Population Trends

The most recent estimate of Piping Plovers at Lake of the Woods, Minnesota, is 26 adults (Table 1). Censuses conducted in 1987 indicated ten birds also bred on nearby Sable Island in Ontario (Heyens 1987), bringing the area population estimate to 36-40 adults. The U.S. Fish and Wildlife Service Piping Plover Recovery Team set a recovery objective of 25 breeding pairs for the Lake of the Woods area (Haig et al. 1987). While the numerical objective of 50 individuals may be attained in the near future, achievement of 25 breeding pairs may require intensive man-

Table 1. Population summary of Piping Plovers from 1982-87[1] at Lake of the Woods, Minnesota.

	Breeding birds					
Year	Pine/ Curry Is.	Morris Point	Zippel Bay	Rocky Point	Non-breeders	Total
1982	24	4	0	2	14	44
1983	32	6	2	2	7	49
1984	36	8	0	0	3-6	47-50
1985	19-36	4	0	–	1-2	24-42
1986	18	4	0	1	9-10	32-33
1987	12	2	0	–	12	26

[1]1982-1984 data from Wiens 1986.

agement of the study areas. Since 1982, the number of individuals and breeding pairs at Lake of the Woods has declined. Differences in the number of observation days among research projects may account for some decline in the number of birds reported, yet each daily census conducted during each four-day visit resulted in observation of the same birds. The most noticeable loss occurred on Pine and Curry Islands. From 1984-86, water levels at Lake of the Woods increased two to three meters over previous levels, caused the seven kilometer long island to be split into three separate islands, and resulted in a loss of prime Piping Plover nesting habitat.

Loss of habitat may account for the increasing proportion of non-breeding Piping Plovers in the population (Table 1). Non-breeding adults are present in many avian populations (including Piping Plovers in Manitoba [Haig 1987]), yet sudden or continuous increases in the ratio of non-breeders to breeders may indicate the population is undergoing a non-cyclical decline in numbers.

Site Fidelity

The return of breeding adults to former nest sites (breeding site fidelity) and of first-year birds to their hatch site (natal philopatry) varies widely among Piping Plovers across North America (Haig 1987). Return rates for Piping Plovers at Lake of the Woods (Table 2), however, represent the highest values reported for the species. Currently, all the breeding birds and more than 90% of the total population at Lake of the Woods are returnees, indicating few new birds come into the population each year. In addition, the number of immigrants coming into the area has decreased substantially in just four years. While it is necessary for only one new individual to move into an area per generation to offset the negative affects (including inbreeding) of genetic drift, a significant decrease in the number of immigrants may reflect the decline in numbers of birds at adjacent sites (e.g., Manitoba, Wisconsin, or Michigan) and could result in a decline of Piping Plovers at Lake of the Woods when resident birds die.

Piping Plovers that fail to return to the study areas at Lake of the Woods have been reported to breed on Sable Island, Ontario (n=3), (Heyens 1987); and in Manitoba at West Shoal Lake (n=4), Lake Manitoba (n=1), and Lake Winnipeg (n=5) (Haig 1987). Hence, when dispersal occurs, birds frequently settle on the next closest Piping Plover breeding site. While censuses are carried out annually in all surrounding Piping

Table 2. Breeding site fidelity and natal philopatry among Piping Plovers at Lake of the Woods, Minnesota from 1983-87.[1]

New birds banded		Banded birds observed				
		1983	1984	1985	1986	1987
Adults in 1982:	37	26	16	13	3	3
Chicks in 1982:	26	9	5	2	2	2
Adults in 1983:	8	–	7	4	3	1
Chicks in 1983:	44	–	6	11	1	3
Adults in 1984:	2	–	–	0	0	0
Chicks in 1984:	14	–	–	4	5	1
Adults in 1985:	6	–	–	–	5	5
Chicks in 1985:	10	–	–	–	7	0
Adults in 1986:	0	–	–	–	–	0
Chicks in 1986:	9	–	–	–	–	1
Unidentified returnees		–	–	–	–	9
Total return		35	34	34	26	24
Resident population		49	47	35-42	32	26
Percent return		71.4	72.3	80.9-97.1	81.3	92.3

[1]1982-1984 data from Wiens 1986.

Plover nesting sites (e.g., North Dakota, Nebraska, Wisconsin, Manitoba, etc.), Lake of the Woods birds have never been seen outside of Manitoba or Ontario (Haig 1987).

Reproductive Success

The number of chicks produced and chicks fledged per pair per year varied greatly during the six years of study (Table 3). From 1984-1986, production was low compared to those observed by Wiens, and to averages for the species (Haig and Oring 1985). During this period of high water, storms frequently washed out nests. Increased water levels also resulted in concentration of Piping Plovers on narrower and shorter beaches rendering them susceptable to predators such as Mink (*Mustela vison*), Red Fox (*Vulpes vulpes*), Herring Gulls (*Larus argentatus*), and Ring-billed Gulls (*Larus delawarensis*).

In 1987, water levels declined by one meter. More habitat was exposed, yet only seven pairs nested. Six of these pairs hatched chicks which reached at least 12 days of age. Upon returning to Lake of the Woods when the chicks would have been 22 days old, we found that only two fledglings and four newly-hatched chicks remained. It was impossible to determine if the 17 fledglings had migrated or been killed during the intense storms of the previous week (although no

Table 3. Reproductive success of Piping Plovers at Lake of the Woods, Minnesota from 1982-1987[1]

Year	Chicks fledge	Chicks fledge/pair
1982	26	1.7
1983	44	2.1
1984	13	0.6
1985	7-10	0.4-0.5
1986	9	0.8
1987	2-21	0.3-3

[1]1982-1984 data from Wiens 1986.

carcasses were found during a careful search of all sites). If these chicks were able to migrate, reproductive success for 1987 would be the highest attained since 1983. The combination of better habitat conditions, trapping of mammalian predators, removal of Herring Gull nests, and continued restriction of human activity on the sites may account for the turnaround. Continuation of these management techniques may be the only means of insuring future success at Lake of the Woods.

CONCLUSIONS

Piping Plovers at Lake of the Woods occupy a unique geographic location that makes them the key link between Great Lakes Piping Plovers and prairie birds. Although Piping Plovers across North America do not separate into genetically distinct populations (Haig 1987), maintaining critical links to adjacent breeding areas will assure maintenance of local population densities. Current data for birds at Lake of the Woods indicates a decline in the number of breeding pairs and immigrants into the sites; however, continuation of current habitat and predator conditions over the next few years may result in more breeding pairs and better reproductive success.

ACKNOWLEDGEMENTS

We thank T. Wiens and F. Cuthbert for collaboration during the study. L. Pfannmuller has given support and guidance for the study since its beginning. Financial and logistical support was provided by the Non-Game Program of the Minnesota Department of Natural Resources; The University of North Dakota; and Delta Waterfowl and Wetlands Research Station. We appreciate the field assistance of M. Bousfield, M. Burke, E. Carroll, R. Ell, A. Fivizzani, J. Sutherland, and M. Walker.

LITERATURE CITED

Dyer, R.W., A. Hecht, C. Raithel, & K. Terwilliger. 1987. Atlantic Coast Piping Plover Recovery Plan. U.S. Fish and Wildlife Service, Washington, D.C., 77 pp.

Haig, S.M. 1985. Status report on the Piping

Plover in Canada. National Museum of Canada, Ottawa, 34 pp.
Haig, S.M. 1987. Population biology and life history patterns of the Piping Plover. Ph.D. dissertation, University of North Dakota, 121 pp.
Haig, S.M., W. Harrison, R. Lock, L. Pfannmuller, E. Pike, M. Ryan, & J. Sidle. Recovery plan for the Piping Plover (*Charadrius melodus*) of the Great Lakes and Northern Great Plains. U.S. Fish and Wildlife Service, 171 pp.
Haig, S.M. and L.W. Oring. 1985. Distribution and status of the Piping Plover throughout the annual cycle. **J. Field Ornith.** 56 (4): 334-345.
Heyens, L. 1987 Piping Plover survey-Sable Islands Provincial Nature Reserve/Windy Point. Report to Ontario Ministry of Natural Resources, 6 pp.
Oring, L.W. and S.M. Haig. 1986. Population evaluation of Piping Plovers at Lake of the Woods, Minnesota. Report to Minnesota Dept. of Natural Resources, 11 pp.
Sidle, J. 1985. Determination of endangered and threatened status for the Piping Plover. **Fed. Regis.** 50 (238): 50720-34.
Wiens, T.P. 1986. Nest site tenacity and mate retention in the Piping Plover (*Charadrius melodus*). M.S. thesis, University of Minnesota-Duluth, 34 pp.
Wiens, T.P. and F.J. Cuthbert. 1984. Status and reproductive success of the Piping Plover in Lake of the Woods. ***The Loon*** 56: 106-109.

Department of Zoological Research National Zoologicl Park, Smithsonian Institute, Washington, D.C. 20008 and the Department of Biology, University of North Dakota, Grand Forks, ND 58202

Acadian Flycatcher Breeding Range Extension in Minnesota

Bruce Fall

On 19 June 1985, I discovered a male Acadian Flycatcher (*Empidonax virescens*) singing from a wooded ravine in Murphy-Hanrehan Regional Park in northeast Scott Co., 30 km south of downtown Minneapolis. I visited his territory (designated A) frequently over the next month, but obtained no evidence that he was mated. In 1986 there were two males, defending nearly contiguous territories (B and C, Table 1) about 300 and 500 m south of territory A. Both had mates and three nests were found. A third male sang for a few days in early July in territory A but he did not persist there. In 1987, territories B and C (but not A) were again occupied and three additional nests were found, including a double brood. This locality (T115N, R21W, S34, SW¼) is the farthest north and west that this species has been reported breeding in Minnesota.

Identification — Because the same two areas were occupied in consecutive years, despite several km² of similar but apparently unoccupied habitat elsewhere in the park, I believe that the 1987 males were the same individuals as in 1986. Unfortunately, I was unsuccessful in attempts to capture and band them, and thus their identities remain unknown. However, I did capture the female in territory B. On 10 June 1986, I mist-netted her near her nest, and banded and photographed her (Fig. 1); I recaptured her the following year (27 June 1987), also near her nest. This female constructed four of the six nests found. Walkinshaw (**Bird-Banding** 37:227-257, 1966) found that both sexes typically return to the same territory year after year, with the result that the same individuals are often paired with each other in successive breeding seasons.

The banded female's wing measurements (chord, 72.5 mm), wing "formula" (Phillips et al., **Bird-Banding** 37:153-171, 1966) and body mass (14.5 g), plus egg coloration (pale buff with scattered brown spots) and nest construction (suspended from branch forks, with strands of nesting material dangling 15-25 cm beneath the nests; Fig. 2) of both females,

Fig. 1. Female Acadian Flycatcher, netted near nest B-1, 10 June 1986.

Fig. 2. Acadian Flycatcher nest B-1, with 3 eggs, 10 June 1986.

Table 1. Summary of 6 Acadian Flycatcher nests found at Murphy-Hanrehan Park, Scott Co., MN, in 1986 and 1987.

Territory/ Nest[a]	Nest Height (m)	Tree Sp., Ht.[b]	Date Found	Stage[c]	Clutch Size	1st Egg	Hatching	Outcome[d]
1986:								
B-1	1.5	CC,6	5/26	B	3	5/28	6/12	pred. 6/14
B-2	6.4	AE,14	6/27	B	?	6/30	-	pred. 7/4
C-1	3.9	WO,9	6/22	B	2	6/27	< 7/13	pred. < 7/18
1987:								
B-3	1.5	AE,9	5/31	B	3	6/5	6/19	3 fledg. 7/3
B-4	3.2	BE,6	8/6	2N,1E	3	7/15[e]	7/30[e]	2 fledg. 8/13
C-2	2.3	WO,15	6/28	3E	3	< 6/26	-	pred. < 7/3

a/ territory-B female banded 10 June 1986, recaptured 27 June 1987.
b/ tree species supporting nest and tree height (m): AE, American elm; BE, box elder; CC, chokecherry; WO, white oak.
c/ stage of nest when found: Building (empty), Eggs, Nestlings.
d/ pred. = predation; fledg. = fledged.
e/ estimated by backdating.

confirmed that these were Acadian and not Least Flycatchers (*E. minimus*), a common breeding species throughout the woodlands of this park. The call note, given frequently by both sexes around the nests, was an almost-whistled 'quee' or 'whee', unlike the sharper, shorter 'whit' of Least Flycatchers. Males on both territories sang the distinctive 'ka-zeek' song, frequently interspersed with a 'pip-pip-pip-pip-pip' call, throughout the breeding season.

Territories and Nest Sites —The two nesting territories, B and C (Table 1), were each about 1 to 1.5 ha in area. Each had similar although not identical boundaries in both years (overlap exceeded 75 percent). The center of territory B was about 225 m SSW of the center of C, and there was a 50 m gap between the territories where neither male was heard singing. These were near the middle of an area of about 3 km^2 (2.5 km north to south and 1 to 1.5 km east to west) of mostly continuous oak woodland, broken only by small (up to 2 ha) ponds and a network of 3 to 5 m wide trails; there are no streams. In this area, the terrain consists of low, rolling hills of 10 to 20 (some up to 50) m relief. Vegetation within the territories appeared representative of this woodland, although the understory was on the low (open) end of a density continuum. There were few thickets of shrubs such as prickly-ash (*Zanthoxylum americanum*), hazel (*Corylus americana*) and blackberry (*Rubus* spp.), which are frequent elsewhere. Within the territories, tree species in approximate decreasing order of abundance included: red oak (*Quercus rubra*), white oak (*Q. alba*), bur oak (*Q. macrocarpa*), American elm (*Ulmus americana*), and aspen (*Populus tremuloides* and *P. grandidentata*). Trees were of moderate size (mostly less than 35 cm dbh), with a 20 to 25 m canopy that was more than 90 percent closed. Dominant sapling species included American elm (primarily), chokecherry (*Prunus virginiana*), box elder (*Acer negundo*), and hackberry (*Celtis occidentalis*). Territory C bordered a 2 ha pond, while one border of territory B was a marshy opening 75 x 25 m; a 5 m wide ski trail passed through the eastern part of both territories. All nests were suspended from a fork of a downward sloping or horizontal slender branch, more than halfway toward its tip, in saplings or small trees, the largest of which was a 20 cm dbh, 15 m tall white oak. Mean nest height was 3.1 m, somewhat less than the 3.4 m reported for 90 nests in

southern Wisconsin (M.J. Mossman and K.I. Lange, Breeding birds of the Baraboo Hills, Wisconsin, Dept. Nat. Res. and Wisc. Soc. Ornithol., 1982).

Predation and Renesting — All three 1986 nests and one of the three 1987 nests failed before any young fledged. All failures were due to an unidentified predator, probably avian. In all cases, the nest itself was undisturbed. In three nests the contents were removed without a trace, in the fourth (C-2), two eggs were removed but one was left.

In territory B in 1986, nest B-1 lasted 18 days after the first egg was laid before a predator removed the two nestlings and an unhatched egg on 14 June. Thirteen days later (27 June), the second nest (B-2) of this banded female was found by Carol Pearson. This nest, 60 m north of the first attempt, was under construction and nearly completed when found. Although too high to check with a mirror, the nest had a sparse floor through which the presence or absence of eggs could be determined from below. The female began incubation on 1 July, but the nest was empty and abandoned on 4 July. After the second failure, the male increased his frequency of song and continued singing throughout July; however, I did not record the female again that summer.

In territory C, both nests found (one each year) failed. In both cases, the late dates of the first egg laid suggest that each was a renesting attempt from a failed first nest, although I have no evidence. In both years, the male was present from mid-May on. After nest predation in 1986, the male continued singing for a few days, then quit; in 1987, the male was not recorded subsequent to nest failure. Nest C-2 (1987) was about 125 m southwest of nest C-1 (1986).

I followed these nests for a total of 80 days from first egg or discovery to fledging (two nests) or predation (four nests). Average daily nest survival rate (Mayfield, **Wilson Bull.** 87:456-466, 1975) was 0.95. With a nest-risk period of about 29 days (from first egg to fledging), the expected success rate for a new nest was only 23 percent. In contrast, Walkinshaw (1966) found 64 percent nest success in Michigan. This value would be somewhat less if calculated by the Mayfield method.

Double Brood — In 1987, the banded female in territory B raised two broods to fledging; presumably, her unbanded mate for both nests was the same male. The first nest (B-3), found under construction by Peter Hudleston on 31 May and shown to me that same day, was built 17 m north of her first nest of the previous year (B-1). The three young, which I had banded on 27 June (8 days after hatching), fledged on 3 July as I approached the nest. They were 14 days old and flew strongly, each at least 25 m. The male resumed singing within a few days and continued, irregularly, into early August, especially in the southern part of his territory. On 18 July, I heard and saw him, about 75 m from the first nest, feeding at least two young which appeared nearly independent. On 6 August, I discovered the second nest (B-4), 85 m S of the previous one; it contained two young, which I banded the following day, and one undeveloped egg. The nestlings' stage of development, measurements (tarsus 13 mm; primaries 17-20 mm, 0-1 mm unsheathed) and body mass (10.6 g each) were almost identical to those of the known-age young in nest B-3 when banded, and so I estimated them to be the same age (8 days). The two young fledged from nest B-4 at about 1930 hr on 13 August, at an estimated age of 14 days. Using the 13-day incubation period of nests B-1 and B-3 and backdating, I estimate that incubation started on 17 July, the first egg was laid on 15 July, and the nest was probably under construction by 11 July or earlier, eight days or less after the young fledged from the first nest. Elsewhere in the northern part of their range, in southern Michigan (Walkinshaw 1966), Acadian Flycatchers are regularly double-brooded, with first-egg dates averaging 1 to 3 June, and young fledging from second nests as late as 31 August. Walkinshaw found that pairs fledging young prior to 20 July usually attempted a second brood.

Range Extension — Acadian Flycatchers were first reported from Minnesota in 1940; the first documented evidence of breeding in this state was a nest found by Fred Lesher in Beaver Creek Valley State Park, Houston Co. in 1967 (***The Loon*** 40:4-6). This species has been recorded from that locality virtually every breeding season since, with as many as 12 territories in 1977 (***The Loon*** 49:220); several other nests have been found there. In 1974 and 1975 (***The Loon*** 46:175, 48:20), a pair nested near Vasa, Goodhue Co.; but ap-

parently there has been only one sighting there since then. In 1981, breeding was reported (no details) from Nerstrand Woods, Rice Co. (***The Loon*** 53:140). These three, plus Murphy-Hanrehan, are the only known breeding localities in the state, although within the past ten years singing males have been recorded at eight or more other sites in southeast Minnesota, from as far north as Franconia, Chisago Co. (***The Loon*** 49:35) and as far west as Lake Maria State Park, Wright Co. (Carol Pearson, pers. comm.). The Murphy-Hanrehan nests are approximately 190 km northwest of Beaver Creek Valley, 53 km west-northwest of Vasa, and 39 km north-northwest of Nerstrand Woods, and represent the extreme northwest edge of the known breeding range of this species. Whether these breeding and sight records are a result of recent range expansion or increased observer effort (or both) is not known. I have spent over 600 hr at Murphy-Hanrehan during May-August 1984-87 and have walked virtually every trail in the park, most of them repeatedly. All records for the park of which I am aware are included in this article: none in 1984, one male in 1985, two pairs plus a third male in 1986 and two pairs in 1987. I am certain that territories A, B and C were unoccupied in 1984 and B and C were not occupied in 1985, but there are wooded areas of the park away from trails that could have harbored undetected territories in all years. In the Baraboo Hills of southern Wisconsin, only 120 km east of Beaver Creek Valley, Acadian Flycatchers have been plentiful since at least the early 1900's and probably since pre-settlement days (Mossman and Lange 1982). I urge observers who find extralimital Acadian Flycatchers to make an effort to search for and report evidence of breeding. Nests of this species are not difficult to locate, and the breeding season extends throughout the summer, from late May into August.

Acknowledgements — I would like to thank Susan Adams and Carol Pearson for helping me search for and monitor nests; and Larry Gillette, Hennepin County Park Reserve District, who has permitted me to study Blue-winged Warblers in the park since 1984. **General Biology Program, University of Minnesota, Minneapolis, MN 55455**

Preliminary Report on the Henslow's Sparrow in Southeastern Minnesota

Lynelle Hanson

Introduction

A species of special concern in Minneosta, the Henslow's Sparrow (*Ammodramus henslowii*), was the focus of a unique project during the 1987 summer season. The objective of the study was to census the population in O.L. Kipp State Park in Winona County to delineate those areas utilized for nesting and feeding so that Park personnel can evaluate the potential impacts of proposed development projects on the species. The investigation was a combined effort of the Resource Management Specialists in the Park and Recreation Division, and the Nongame Wildlife Program of the Wildlife Division of the Minnesota Department of Natural Resources.

Description of the study area

The study area consists of two old fields within O.L. Kipp State Park. Specifically, the study area fields were located in Winona County: T105, R5W, Sec 2 & 3, and T106, R5W, Sec 34 & 35. The headquarters (HQ) field is approximately 70 acres and the contact station (CS) field is approximately 40 acres. Brome grass (*Bromus inermis*), timothy grass (*Phleum pratense*), and Kentucky blue grass (*poa pratense*) were the principal graminoid species for both fields. The amount of Queen

Adult Henslow's Sparrow, 22 June 1987, O.L. Kipp State Park, Winona County. Photo by Lynelle Hanson.

Anne's Lace (*Daucus carota*) and Goldenrod (*Solidago* sp.) varied considerably between the two fields. The forbs were much more numerous in the headquarters field. Small woody plants were also scattered throughout the fields.

Methods

To begin, I established a grid system in the HQ field with 71 numbered laths placed at 30.5 m intervals. All areas where singing Henslow's Sparrows occurred during preliminary surveys were included. Instead of a grid system, I developed strip/belt transects in the CS field. Standing vegetation outlined the twenty 30.7 m wide strips. I traversed the fields every three to four days and recorded the location of each singing male on a graph corresponding to the grid or transect system; if females or young were seen, their location was noted also. Symbolism recommended by the Inventory Techniques for Sampling Avian Populations was used. Early in the season only one field was censused per day, but later both fields were surveyed daily.

Habitat and distribution

Henslow's Sparrows nest primarily in overgrown fields, weedy prairies, and wet meadows (Graber, 1968). The species breeds in the northeastern portion of the United States, from Minnesota to New York and Missouri to Virginia (Robbins, 1967).

Population and territories.

Henslow's Sparrows are semi-colonial (Graber, 1968), yet most of the Minnesota records note only one or two individuals or pairs (Fall, 1982; Eckert, 1974; and the MOU files). The Kipp Park population totaled thirteen males, ten females, and five young. During May and June, four males established territories in the CS field. In July, a fifth male arrived and began to sing in a previously unoccupied patch. Throughout the summer, I identified four females in this field. Eight males sang in the HQ field but only six territories were defended at any one time. Females were present in all defended territories. I limited my definition of defended territories to those areas where my presence resulted in call notes from the tenants. On 22 June, two fledglings with adults flushed from the vegetation in the southern part of the HQ field. Fledgling activity began at the end of July in the CS field. Two were seen here while attempting to band them on 4 August. The fifth fledgling with an adult was

Juvenile Henslow's Sparrow, 4 August 1987, mist-netted at O.L. Kipp State Park, Winona County. Photo by Howard Munson.

seen in the HQ field on a very foggy day in late August.

Song

Although the voice of the Henslow's sparrow has been noted as "a poor vocal effort; a hiccupping *tsi-lick*" (Peterson 1980), the sound of the song carries a considerable distance. One male sat in a leafless box elder 1½ m high and sang and he was clearly audible at a distance of more that 130 m. I placed a 60 power spotting scope on the Henslow's Sparrow and watched as he sang. His songs were actually heard at greater distance but due to the topography of the field he was not visible at the greater distance.

Not only does the song project, but also the song exhibits a great amount of variation. An audio-spectographic analysis revealed the song consists of many notes of two varieties, *vibrato* and *staccato* (Borror and Reese, 1954). I found the song battles between neighboring males particularly interesting. During a battle, if the final note of the first individual ascended the musical scale, the final note of the second would descend. The intonation could be likened to the rhythm and sound of an old swing creaking back and forth under the weight of a large child.

Many times a bird would begin to sing in response to a noise such as an airplane flying over. This was evident during my all-night watches. The birds stopped regular singing shortly after sundown and were generally quiet until an auditory disturbance. Even the distant Whip-poor-will's call could begin an otherwise quiet Henslow's singing. Movement also signaled the bird's singing response. This was noted also by Hyde (1939).

Summary

Presently, the purposed development of the mountain bike trails has been put on hold until the fall of 1989. I will be further investigating this population during the interim. The results of the study will determine the fate of the fields at O.L. Kipp State Park and possibly the nesting fate of the Henslow's Sparrow in Minnesota.

Acknowledgements

I wish to thank Dr. Francesca Cuthbert; Kathryn Bolin and the Resource Management Specialists; and Lee Pfannmuller, Joan Galli, and the Nongame Wildlife Program of the Minnesota Department of Natural Resources.

Literature Cited

Borror, D.J. and Reese, C.R. 1954. Analytical studies of Henslow's Sparrow songs. **Wil. Bull.,** 66(4):243-252.

Eckert, K. 1974. Henslow's Sparrow and Bell's Vireo in southwest Minnesota. ***The Loon***, 46:122-123.

Fall, B.A., R.D. Eliason 1982. Henslow's Sparrow nest, Hennepin county. ***The Loon***, 54:192.

Graber, J.W. 1968. *Passerherbulus henslowii henslowii,* Western Henslow's Sparrow. **U.S. Nat. Mus. Bull.** 237:779-788.

Hyde, A.S. 1939. The life history of Henslow's Sparrow, *Passerherbulus henslowi* (Audubon). Mus. Zool. Univ. Mich. Misc. Publ. No. 41. 72pp.

Pfannmuller, L.A. 1987. Personal communication.

Peterson, R.T. 1980. **A Field Guide to the Birds East of the Rockies.** Houghton Mifflin Co. Boston. 384 pp.

Robins, J.D. 1967. Ecology of Henslow's Sparrow. Unpubl. M.S. thesis, Western Michigan Univ., Kalamazoo, Michigan.

Central Michigan University, Department of Biology, Mt. Pleasant, MI 48859

BOOK REVIEWS

THE BIRDS OF HAWAII AND THE TROPICAL PACIFIC by H. Douglas Pratt, Phillip L. Bruner and Delwyn G. Berrett, Princeton University Press, Princeton, N.J. 1987; 409 Pages; 43 Color Plates; 14 Regional Maps; 6 Regional Checklists. Cloth, $50.00; Paper $19.95.

This is one book you must not miss! The authors have a great deal of exerience in ornithological work in this region and their experience and research is brought into clear focus in this volume.

The various island groups are treated individually, especially regarding landbirds. The paper edition can be easily carried in the field and one can be assured that the particular area visited is segregated to avoid confusion over which species is found where. This is especially true when consulting Pratt's magnificent color plates of land birds. His marine/ocean bird plates group the similar species together since they may be found visiting several ocean areas. The areas covered include:

1. Hawaiian Islands (6 islands plus Kure, Midway, and Northwest Islands)
2. Micronesia (8 high islands)
3. Central Pacific Islands (8 islands)
4. Central Polynesia (8 islands)
5. Southeastern Polynesia (8 islands)
6. Fiji (8 islands)

The species account texts are authoritative and complete based on knowledge-to-date and are accompanied by 38 black and white figures.

As one who has visited the Hawaiian Islands on numerous occasions, I know this will be my guide while there. This is unquestionably the best guide to Hawaiian Birds available and many of the species have never been satisfactorily portrayed before.

Lastly, the important chapters on Continental vs. Oceanic Islands, Tropical Pacific Habitats, Island Birding and Conservation add much to understanding the ornithology of this region. **Bill Pieper, 11731 Evergreen Circle, Coon Rapids, MN 55433.**

A FIELD GUIDE TO HAWKS OF NORTH AMERICA by Clark, William S. and Brian K. Wheeler. 1987. xii, 198 pp. 4½x7¼ in. Twenty-six plates (24 in color), 240 black-and-white photos, 32 maps. Published by Houghton Mifflin Co. $13.95. Paperbound.

The Peterson and Robbins field guides were OK as far as they went (which wasn't very far). In 1983 the "advanced" Master and Geographic field guides took field identification a step farther, but even these are, of necessity, incomplete and oversimplified too often — it's simply impossible to fit all the variables and complexities of the identification of hundreds of species into one portable guide.

Enter the specialized field guides: e.g., Grant's guide to gulls, the shorebird guide by Prater et. al., and now Bill Clark's guide to the 39 species of diurnal raptors which have been seen north of Mexico. If ever there was a group of birds that needed specialized treatment, the Order *Falconiformes* is it. Hawks' plumages are relatively colorless, often

highly variable and consequently confusing; in addition, shape and manner of flight, also important in hawk identification, can be just as variable and just as confusing.

But this new and invaluable guide (hereafter, **Hawks**) sorts through the confusion, illustrates every race and color morph, and discusses field marks that even many experts find revealing. The dark area on the female and immature harrier's underwing, several little-known distinctions among the accipiters, the most useful difference between immature Red-shouldered and Broad-wingeds, the pale wing panels of various buteos, the plumages of adult male and dark-morph Rough-leggeds (strikingly different from anything in the standard field guides), the extreme variation of Red-tailed plumages, the Osprey-like head and Golden Eagle-like tail of sub-adult Bald Eagles, the Gyrfalcon's similarity to the goshawk and its two-toned underwing...these are but a few of many identification points which will help seasoned and beginning hawk watchers alike.

Hawks is more than a guide to identification, however. Its exhaustive bibliography is over 30 pages long. Complete Status and Distribution sections go far beyond mere shading on a range map. And each species' paragraph on behavior makes for interesting reading, as do the sections on Etymology.

Brian Wheeler's paintings are a definite asset to the book. His depictions of plumage details are accurate, and only a few hawks look misshapen or unnatural — e.g., some of the perched buteos and the too neat and smooth wing outlines of several flying hawks. Certainly some plates could have been better and some critics won't care much for what they see, but these paintings are entirely adequate and often superior to anything I've seen before.

I wish I could say the same for the photos. Too many are "muddy" and dark, several are out of focus and most are too small. As a result, the accompanying field marks captions are often not visible in a photo or seem to be contradicted in an adjacent one. Some species are pictured more than necessary: three caracara photos, not six, would have sufficed, and six photos each of the accidental Roadside Hawk and Eurasian Kestrel seem excessive — especially since the Harris' Hawk and American Kestrel only rate four photos each.

More puzzling and even disturbing are the flight silhouettes in the "How to Identify Hawks" section. Amazingly, only two of the eight are accurate; it looks like some non-birder editor threw these in without telling Clark. The vulture's bill is grotesquely out of proportion; neither the kite's or falcon's wing tips are pointed enough and their tails are too fanned; the harrier's wings are too short, the accipiter's tail is unnaturally fanned; and the eagle silhouette is about the smallest of all. We are told on page 9 that these shapes should be the first step in the identification process but if anything this section is counterproductive. The poor reader is even led to more confusion on the inside back cover: the vulture and harrier shapes are actually interchanged!

It also appears that the editors and proofreaders weren't paying attention to this section's introductory comments. The statement that "in most species... adults usually have blue-gray backs and reddish, barred underparts" is hardly true, certainly something Bill Clark could have never written. Other errors also escaped the notice of proofreaders and reviewers. In the accipiter section it states, "there is no size overlap between species," yet overlap is listed for two of three Cooper's vs. goshawk measurements. It is also wrong, or at least misleading, to claim that an accipiter "migrates mostly by soaring" — someone should tell those thousands of sharpies flapping past Duluth's Hawk Ridge each fall that they're not doing it right.

The great value of **Hawks** may lie in its coverage of little-known field marks, but at the same time there are an unfortunate number of oversights, inconsistencies, misleading statements, and marks given too much or little emphasis. Some examples of identification points with too little emphasis: the Black Vulture's sometime dihedral; the Turkey Vulture's similarity to the adult Golden Eagle; the Osprey's secondary coverts and wing tips which are just as dark as its carpal patches, the Red-tailed's whitish upper tail coverts (far more attention to this is needed); the usefulness of the Ferruginous Hawk's wing patches; and the close similarity of some falcons' facial patterns (i.e., Merlins, Prairies, tundra peregines and gray-morph Gyrs).

There are also several unfortunate omissions, including: the Rough-legged and Os-

prey are not listed as Similar Species (both have carpal patches), the goshawk's dark ear coverts and its similarity to the peregrine, that Swainson's Hawks can be confused with Red-taileds and adult male Rough-leggeds and immature Bald Eagles (all can have dark chests and/or whitish wing linings), nor are the Red-tailed and Rough-legged (light-morph adult male) Hawks listed as Similar Species — both can have streaked bellies.

Other problems: the accipiters' tail lengths, shapes and white tips, head projections and eye placements were all stressed but some photos fail to confirm these differences; accipiters' tail bands are said to be of equal width — in reality the dark ones often look narrower; buteos are said to "lack...heavily barred undersides of flight feathers," but several photos show the contrary; the immature Bald Eagle's whitish wing linings are not clearly described, and the White-belly I and II plumage distinctions are not obvious and not useful; the pale area behind the Prairie Falcon's eye is not diagnostic or consistent (see photos 38d and 41d); and alleged differences between the Prairie Falcon's and Peregrine's flight styles remain only alleged.

Some might also criticize **Hawks** for its de-emphasis of shape and flight identification and its overemphasis on plumage. Others might also question the $14 price tag. But there remains a lot of new information on identification here worth knowing, and, in spite of the nagging shortcomings discussed above, the guide advances far beyond what any other field guides have to say about hawks. — **Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804**

LeConte's Sparrow, 13 June 1987, Aitkin County. Photo by Warren Nelson.

THE WINTER SEASON
(December 1, 1986 to February 28, 1987)

Kenneth J. LaFond

The winter of 1986-87 was unique to those of us who have been around for 60 years or less. Never has there been such a winter since the 1920's. During the 1920's, Dr. Thomas S. Roberts mentioned a "winter" where fall faded into spring. This could certainly apply to the winter of 1986-87. For the first time in my memory, there was no snow accumulation that lasted more than a day or two throughout the period in all parts of the state except in the northeast. The northeast did experience somewhat of a winter with a foot or so of snow accumulation and a few below zero readings. It was a -27° at Isabella, Lake County in mid-December and a -45° at Warroad in late January, but these were only very short breaks in the above normal temperature pattern which was in evidence throughout the period.

In the Twin Cities area, December 1986 was 5.5° above normal with only 0.31″ of precipatation. January 1987 was the third warmest January on record in the Twin Cities. The lowest temperature occurred on January 23 when it was -14°. During the three month period there were only six days on which the temperature dipped below zero. The highest temperature for the period, 53°, occurred on February 7. In summary, during the three month period, December to February, the average temperature in the Twin Cities was just shy of 25°. Normal average is 15.7°. Since weather records began in the Twin Cities, the winter of 1986-87 was the fourth warmest; the three other warm winters were 1878 at 29.1°, 1931 at 26.5° and 1882 at 26.1°. One last statistic, from December 14, 1986 through the end of February, 1987 every day in the Twin Cities had above normal temperatures except January 16, 22, 23, 24 and 25!

What affect did all of this have on the birds? Probably not as much as one would expect. A total of 145 species was recorded, which is about normal for a Minnesota winter. The cold and snow in November drove many species southward that otherwise would have remained in the state. However, Canada Geese and American Kestrels remained in the

state in record numbers. There were 13 reports of Great Blue Herons from December to early February, which is way above normal. There were 3,500 Tundra Swans on the Mississippi River in Wabasha County on December 1. Ring-necked Pheasant numbers continued to decline from previous years, but hopefully the mild winter conditions will insure more breeding stock for 1987. Gulls were well represented in Duluth with five species recorded during the period. Northern Hawk-Owl reports were up from the last few years and there were Snowy Owl reports from 20 counties. Great Gray Owl reports were up from previous years. Boreal Owls started calling in Lake County on February 25. Bohemian Waxwings were present in good numbers with reports as far south as Redwood and Rice Counties. Northern Shrikes were widespread. Winter finch numbers were about normal with no major invasion of any species; however, Pine Grosbeaks were scarce and the few birds in the state were only found in the far north. Common Redpolls were widespread and common throughout the north and central regions. Evening Grosbeaks were common only in the north-central and northeast regions. Snow Bunting numbers were down sharply from last year.

Unusual records included a Western Grebe at Duluth on December 6, a Harlequin Duck wintering in Mower County, three reports of Turkey Vultures for the state's first wintering records; an Iceland Gull in Minneapolis and at least three in Duluth, two Great Black-backed Gulls in Duluth during most of the period. Gray Jay reports were way up from normal with a high of 154 at Isabella, Lake County. Carolina Wrens were in two southern counties. A Yellow-rumped (Audubon's race) Warbler was seen at a feeder in Carver County during most of the period. Brewer's Blackbirds wintered for the first time in the north. House Finches were at two Minneapolis feeders during most of the period.

The major effect of the mild conditions occurred late in the period with an influx of early spring migrants. Waterfowl, raptors, Loggerhead Shrikes, Eastern Bluebirds, American Robins and blackbirds were migrating into the state in mid to late February, which is anywhere from two to three weeks ahead of schedule.

It was a winter to remember for most birders. The big question remains, will we Minnesotans know how to handle snow, ice and cold when next winter rolls around?

(Note: L.Y. indicates last year).

Common Loon

Reported only at the Virginia power plant on Silver Lake, St. Louis Co. on 1/27 (SW/MS). Very few mid-winter records, especially in the north.

Pied-billed Grebe

One at Sucker Creek, Ramsey Co. until 1/14 (m.ob.).

Horned Grebe

Two December reports: Lake Harriet, Hennepin Co. 12/5 (SC) and Duluth Township 12/6 (2,AB).

Red-necked Grebe

One Lake Superior report: Duluth Township 12/6 (2,AB).

WESTERN GREBE

Duluth Township 12/6 (AB). Casual on Lake Superior in any season and one of the very few winter records for this species.

AMERICAN WHITE PELICAN

Three individuals again overwintered in Albert Lea (m.ob.)

Great Blue Heron

Probably the most reports ever: seen on Wild River, Marshall, Mountain Lake-Windom, Faribault and Austin CBC's with some individuals remaining until mid-January, and in White Bear Lake, Ramsey Co. until 2/4 (MRBA). A total of **thirteen** individuals reported.

Tundra Swan

Late west central region migrants in Otter Tail, December (SDM); Grant, 12/7 (KL) and Chippewa, 12/2 (FE). Two overwintered in Wabasha (WDM) and 3500 were on the river in Houston on 12/1 (FL). Two unidentified swans in Duluth on 2/27 (M. Hendrikson) may have been very early migrants or possibly Mute Swans from Ashland Co., Wisconsin.

Greater White-fronted Goose

One on the Rochester CBC.

Snow Goose

Reported on the Fergus Falls, St. Paul and Rochester CBC's. An early migrant (?) in Ramsey 2/28 (RH) and one in Stearns Co. in late January and throughout Feb. (m.ob.)

Canada Goose

Many more than normal lingered or overwintered. Peak CBC counts of 105,000 at Lac Qui Parle, 26,700 at Rochester and 5400 at Fergus Falls. Also reported from 38 counties throughout the state including Virginia, St. Louis Co. 1/27 (SW/AS) and Marshall 2/26 (ANWR).

Wood Duck

Reported on the St. Paul, Minneapolis North, Excelsior, Faribault and Rochester CBC's. The Minneapolis individual remained all winter (OJ). Additional December reports from Meeker 12/5 (4, TM) and Dakota 12/12 (TT). Two pairs also overwintered in St. Peter, Nicollet County (EK).

Green-winged Teal

Two individuals apparently overwintered at the Cedar Avenue Bridge in Bloomington 12/14 (TT) and 2/4-21 (MRBA). Returning migrants (?) in Winona 2/16 (OJ) and Washington 2/28 (DS).

American Black Duck

The statewide CBC total of 57 is down from last year's 73. Reported in Cook St. Louis (Virginia on 1/27 SW/MS) and twelve counties south and east of the Twin Cities.

Mallard

A statewide CBC total of 15,697 (11,902 L.Y.). Reported from 39 counties throughout the state. High CBC count of 3100 at St. Paul.

Northern Pintail

Reported from Lake Phalen, Ramsey Co. on 12/28 (AB) and again on 2/28 (DS). Also reported from Scott Co. at Blue Lake Sewage Ponds 2/1-2/9 (m.ob.).

Blue-winged Teal

An early migrant (?) at St. Peter, Nicollet Co. 2/14-21 (JF).

Northern Shoveler

One overwintered at Fort Snelling, Dakota Co. (TT).

Gadwall

Overwintered in Scott but only five on the Excelsior CBC (30 L.Y.). Also reported on the St. Paul CBC and in Houston Co. on 12/1 (FL).

American Wigeon

One in Bemidji during CBC count week and another December report at Blue Lake, Scott Co. on 12/7 (KE). Reported in Anoka 1/24-2/14 (SC,GP).

Canvasback

December reports from Houston 12/1 (2, FL) and Wabasha 12/4 (WDM).

Redhead

Overwintered at Fergus Falls (SDM). One in Scott on 12/7 (BDC) and January reports from Stearns 1/3 (RG) and Wright 1/3 (RBJ).

Ring-necked Duck

Overwintered in Fergus Falls (SDM). December reports from Hennepin 12/9 (SC) and Ramsey 12/9 (DS). A January report from Lac Qui Parle 1/17 (KL) and one or two individuals reported from Blue Lake, Scott Co. until 2/4 (m.ob.).

Greater Scaup

One reported from Lake Harriet, Hennepin Co. on 12/5 (DB).

Lesser Scaup

North reports from the Aurora CBC and Cook 12/8 (KMH). South reports from the Excelsior and Rochester CBC's and Ramsy until 12/9 (DS) and Scott until 2/15 (TT).

Harlequin Duck

A female overwintered on a creek in **Mower,** first seen 12-16 (RRK), subsequently by m.ob.

Oldsquaw

Several reports from Cook including a high count of **223** on the Grand Marais CBC. Additional Lake Superior reports from St. Louis and Lake 12/6 (AB). One reported in the Twin Cities at Lake Calhoun on 12/1 (SC).

Common Goldeneye

More widespread than usual with reports from 25 counties throughout the state. High CBC count of 452 from St. Paul.

Harlequin Duck, December, 1986, Austin, Mower County. Photo by Dick Smaby.

Bufflehead

North reports from St. Louis at the Virginia Power Plant on 1/27 (SW/MS) and Lake 12/7 (AB). Two Twin Cities area reports: Hennepin 12/3 (SC) and Scott 12/7 (BDC). Also reported on the Fergus Falls CBC.

Hooded Merganser

One on the Mississippi River in Benton on 1/27 (KL) and in Washington 12/13 (KL) and at Black Dog, Dakota County until 1/10 (TT). Seven in Houston Co. 12/1 (FL).

Common Merganser

Reported from 14 east region, five central region and two west region counties.

Red-breasted Merganser

One in Hennepin 12/3 (SC) and three Lake Superior reports; Duluth CBC, Lake 12/6 (AB) and Cook 12/19 (KMH) and 1/9 (TW).

Ruddy Duck

Three December reports: Lac Qui Parle 12/20 (RGJ) and Hennepin 12/4 (SC) and Ramsey until 12/9 (DS).

TURKEY VULTURE

The unusually warm weather undoubtedly accounts for the first winter records for this species with not one but three separate reports. The earliest was 1/17 along TH 60 in Blue Earth Co., see ***The Loon*** 59:105. The second report was near Eitzen in Houston with four individuals seen on 2/7 (JM). The third report was of an individual near Rushford, Fillmore Co. on 2/9 (AP); see ***The Loon*** 59:56-57.

Bald Eagle

Reported from 39 counties throughout the state (21 L.Y.) with a statewide CBC total of 51 (49 L.Y.). Numberous reports of migrants in the north regions in mid to late February and one overwintered at Duluth. Considera-

ble migratory movement at the beginning and end of the period combined with the possibility of double-counting precludes meaningful estimates of total individuals but the numbers certainly seem to be increasing.

Northern Harrier

Reports of nine individuals: Morrison on 12/9 (KL); Mille Lacs on 1/11 (RG) and the Wild River and Faribault CBC's. February reports of migrants (?) from Mower 2/14 (RRK);Anoka 2/27 (KB); Aitkin 2/22 (WN); Wilkin 2/19 (1, KE) 2/25 (3, SDM) and Beltrami 2/27 (TK).

Sharp-shinned Hawk

Reports of 23 individuals (20 L.Y.) from 12 counties in the central and southern regions.

Cooper's Hawk

Two reports: Olmsted 12/27 and 2/20 (JEB) and Fillmore 2/14 (AP, RJ).

Northern Goshawk

Widespread but scarcer than last year. Reports of about 19 individuals from 16 counties throughout the state.

Red-shouldered Hawk

Reports from Freeborn 1/3 (AB) and Houston 2/28 (AB). Also reported on the St. Paul NE, St. Paul and Rochester CBC's.

Red-tailed Hawk

Much more numerous than usual. Reports from 38 counties (24 L.Y.) in all but the northwest and west central regions. A statewide CBC total of 214 (101 L.Y.). Two again overwintered in Duluth.

Rough-legged Hawk

More reports than usual: about 160 individuals (22 L.Y.) from 40 counties throughout the state including a peak count of 48 in Aitkin on 2/22 (WN).

Golden Eagle

Reported on the Beltrami Island CBC and in Marshall on 12/29 and 2/3 (ANWR), an east central report from Carlos Avery WMA, Anoka County on 1/18 (RG) and southeast reports from Wabasha, Winona and Houston.

American Kestrel

The most reports ever. A statewide CBC count of 131 (34 L.Y.) with a high count of 29 at Hastings-Etter. Reports from **52** counties throughout the state.

Merlin

Reported from Pennington 2/21 (KSS); Wilkin — one chasing a crow on 12/4 (SDM); Duluth CBC; Kanebec 1/11 (RG) and Ramsey, 12/31 (J. Gislason).

Peregrine Falcon

Reported without details from Mpls. on 2/3 (KB).

Gyrfalcon

One Duluth report: 1/15 (M. Carr [details?])

Prairie Falcon

Again overwintered at Rothsay in Wilkin County and one in Moorhead, Clay County until 1/11 (LCF).

Gray Partridge

Fewer reports than usual. A statewide CBC count of 136 (406 L.Y.) and reported from only 18 counties in the west and southern regions.

Ring-necked Pheasant

The statewide CBC count of 203 is down from last year's 390. Reported from 41 counties south of a Fargo-Duluth line plus one on the Bemidji CBC.

Spruce Grouse

Reported on the Beltrami Island and Isabella CBC's. Also reported along the Gunflint Trail in Cook County during February (KMH) and in Lake Co. again along County Highway #2, 3.5 miles south of Trunk Highway #1, up to 18 (m.ob.) and in T59N, R10W on 1/3 (10, SS).

Ruffed Grouse

Reports from 27 counties northeast of a line from Freeborn to Clay. The statewide CBC count was 121 (54 L.Y.) with a high count of 35 at Duluth.

Greater Prairie-Chicken

Reported on the Crookston CBC and several reports of up to 50 individuals booming

at Rothsay WMA in Wilkin in late February (m.ob.).

Sharp-tailed Grouse
Reported from Marshall, Lake of the Woods and Aitkin.

Wild Turkey
Reported from Winona, Houston and Fillmore.

American Coot
One on the Fergus Falls CBC and in Ramsey County until 12/9 (DS). Reported in Hennepin until 12/10 (m.ob.) and again on 2/24 (AB).

Killdeer
Three late February migrants: Murray 2/26 (MK), Fillmore 2/27 (*fide*, AP) and Brown 2/27 (JS).

Common Snipe
Reported on the St. Paul and St. Paul NE CBC's. Also reported from the Bass Ponds along the Minnesota River in Dakota County, 2/15-16 (TT). Southeast region reports from Houston 12/1 (FL) and Winona 1/19 (AP).

Ring-billed Gull
Late migrants in Wabasha 12/4 (WDM); Ramsey 12/8 (KL); Hennepin 12/8 (SC) and Dakota 1/1 (TT). One reported at Black Dog, Dakota County on 1/19 (RG) is more difficult to classify. Early migrants (?) at Black Dog on 2/26 (ES).

Herring Gull
Seven reports of migrants in the Twin Cities area with the last on 1/1 (AB,TT). Returning migrants in Houston 2/28 (FL) and Ramsey 2/27 (TT). In the northeast up to 500 were present in Duluth (KE) and 100+ overwintered in Grand Marais (KMH). For a detailed discussion of this and the following gull species in the Duluth area see ***The Loon*** 59: 100-101.

Thayer's Gull
Up to four overwintered in Duluth (KE) and one was in Hennepin at Lake Harriet on 12/4 (SC).

ICELAND GULL
A first winter individual at Lake Calhoun, Hennepin County on 12/8 (SC) and **three** different individuals in Duluth between 12/17 and 1/17, (KE). Again, see ***The Loon*** 59:100-101 for additional details of the Duluth observations.

Glaucous Gull
Up to three individuals in the Twin cities area at Lake Harriet and Black Dog 12/4-12/14 (m.ob.). In Grand Marais five on 12/2 (KMH) with the last observation on 12/5. In Duluth up to 17 were counted on 12/17 (M. Hendrickson) and 15 were present on 2/17 (KE).

GREAT BLACK-BACKED GULL
Both an adult and a first-winter individual were reported from Duluth intermittently between 12/15 and 2/18 (KE). Again see ***The Loon*** 59:100-101 for details.

Rock Dove
Reported from 84 counties, (not seen in Cook, Clearwater and Kanabec(with a statewide CBC count of 14,617 (11,385 L.Y.)

Mourning Dove
Reported from 19 counties (19 L.Y.) with a statewide CBC total of 403 (103 L.Y.) of which 226 were from the St. Paul count.

Eastern Screech-Owl
Reported from three central and ten south region counties. A statewide CBC count of 23.

Great Horned Owl
About 200 individuals (105 L.Y.) reported from 53 counties (42 L.Y.) throughout the state. A statewide CBC total of 132 (80 L.Y.)

Snowy Owl
Widespread with reports from 20 counties (16 L.Y.) throughout that state. A total of about 38 individuals (27 L.Y.) with up to six in the Duluth Harbor area and three overwintering at Rothsay, Wilkin Co. In the southeast an adult male from 2/1 through 2/6 and an immature female from 2/10 through 4/17 in Winona Co. near Lewiston (AP).

Northern Hawk-Owl
More reports that usual. Up to six in the Roseau Bog area (m.ob.), three in the Duluth area (*fide*, KE) and additional reports from

"Arctic" Great Horned Owl, 24 January 1987, Mankato, Blue Earth County. Photo by John P. Bollenbacher.

Cotton, Isabella, Two Harbors and Jackson Lake, all in the NE region. An unusual central region report from Morrison 12/28 (L. Johnson).

Barred Owl

About the same as last year with 42 individuals reported from 25 counties.

Great Gray Owl

Reported near Scanlon, Carlton Co. on 1/5 (D. Johnson) and the Sax-Zim area of St. Louis Co. (m.ob.). Also reported in Aitkin on 2/25 (2, *fide*, WN) and Beltrami, near Washkish on TH #72 (m.ob.) Lake of the Woods, 2/10 (KH).

Long-eared Owl

Reported on the St. Paul NE CBC, and in Stearns 1/3 (RG, RJ), Martin 2/7 (RJ), and Morrison 2/21 (RG, RJ).

Short-eared Owl

One in Cottonwood 1/7 (E. Duerksen) and **ten** at Rothsay, Wilkin Co. 1/11 (SDM, GAM) and again on 2/19 (3; KE, AP). See page 157, this issue.

Boreal Owl

St. Louis Co. near Cook on 12/23 (KB), Saginaw 2/1-2 (V. Rudolph) and Duluth 2/18 (J. Newman). Calling 9 miles north of Isabella on 2/25 (SW/MS). Also reported in Cook near Bearskin Lake on 2/21 (M. Nevens and J. Tofte).

Northern Saw-whet Owl

Lac Qui Parle 2/25 (RG); Isanti, 12/11 (KL); Anoka 2/20 (RG), and the Wabasha and Rochester CBC's.

Belted Kingfisher

Unusual north region reports from Northome, Koochiching Co. on 1/3 (SDM) and the Isabella CBC. Also reported on the Fergus Falls CBC and from 18 additional south and central region counites. Statewide CBC total of 30 (eight L.Y.).

Red-headed Woodpecker

Fewer reports than normal with reports only from Aitkin, Crow Wing and five south region counties. Statewide CBC total of six (37 L.Y.).

Red-bellied Woodpecker

Reported from 29 counties south of Wilkin and Aitkin with a statewide CBC total of 275 (336 L.Y.), Rochester again had the high count with 62.

YELLOW-BELLIED SAPSUCKER

Reported on the St. Paul CBC.

Downy Woodpecker

Reported from 63 counties throughout the

Boreal Owl, Saginaw, 1 February 1987, St. Louis County. Photo by Bill Penning.

Female Black-backed Woodpecker, 31 January 1987, Highway 27, Morrison County. Photo by Lynn Johnson.

state. Statewide CBC total of 1744 (1407 L.Y), with the high count again at St. Paul NE.

Hairy Woodpecker
Reported from 59 counties throughout the state. A statewide CBC total of 1086 (895 L.Y.).

Three-toed Woodpecker
Four reports: the Beltrami Island and Isabella CBC's; near Cook, St. Louis Co. on 12/15 (KB); and Cook on 1/4 (EH).

Black-backed Woodpecker
Reports of about 28 individuals (25 L.Y.) from seven northeast and north central regioon counties. Also reported from Chisago in the east central region 2/17 (RG).

Northern Flicker
Reported from Polk and Becker in the NW region and 25 counties in the central and south regions. Statewide CBC total of 42 (30 L.Y.).

Pileated Woodpecker
Reported from 46 counties throughout the state with a statewide CBC count of 173 (105 L.Y.). High count of 21 on the St. Paul NE count.

Horned Lark
Reported form 50 counties in all but the northeast region. Statewide CBC total of 352 (551 L.Y.).

Gray Jay
A statewide CBC count of 419 (151 L.Y.) with a high count of **154** at Isabella. Reports from eleven northeast and north central region counties and Becker, Norman, Polk and Marshall in the northwest region. Also reported from Wright 1/3 (RG, RJ) Anoka, 12/13 (MRBA) and during the St. Paul NE count week.

Blue Jay
Reported from 79 counties (74 L.Y.) throughout the state with a statewide CBC total of 2768 (5594 L.Y.).

Black-billed Magpie
Reported from seven northwest region counties, Aitkin 1/10-2/14 (WN) and the Sax-Zim area of St. Louis 12/22 (fide KE). Statewide CBC total of 61 (36 L.Y.) with a high count of 36 on the Warren CBC.

American Crow
Reported from 79 counties throughout the state with a CBC total of 6139 (4793 L.Y.). Two overwintered in Ely (SS) and numerous reports of migrants in the far north in mid and late February.

Common Raven
Reported from 16 north region counties and Pine and Chisago in the east central region. Statewide CBC total of 948 (586 L.Y.) with the high count at Duluth (227).

Black-capped Chickadee
Somewhat scarcer in the southwest and south central regions but otherwise about the same as last year. Reports from 72 counties (83 L.Y.) with a statewide CBC total of 10,328 (10,725 L.Y.).

Boreal Chickadee
Two south reports of overwintering individuals: Cottonwood (m.ob.) and Wabasha Co. (m.ob.). Two central region reports from Morrison 2/21 (RJ) and Mille Lacs (RG). Also reported from nine north region counties with a statewide CBC total of 105. High counts of 34 at Isabella and 31 at Duluth.

Tufted Titmouse
Reported on the Winona CBC; Rochester on 1/1 (m.ob.); Fillmore 2/8-14 (m.ob.) and throughout the period in Houston (EMF).

Red-breasted Nuthatch
Reported from 28 east and central region counties and Jackson and Cottonwood in the southwest region. Statewide CBC count of 328 (358 L.Y.); high county of 78 at Isabella.

White-breasted Nuthatch
Reported from 64 counties (67 L.Y.) throughout the state. Statewide CBC count of 2461 (1885 L.Y.).

Brown Creeper
Reported from 37 counties throughout the state with a CBC total of 131 (54 L.Y.).

Winter Wren
Reported at Reno, Houston County on 1/1 (FL).

CAROLINA WREN
One in Austin throughout the period, see ***The Loon*** 59:103; and another in Fillmore 1/24-2/14 (m.ob.), (***The Loon*** 59:56).

Golden-crowned Kinglet
Reported from 18 south and central region counties.

Ruby-crowned Kinglet
One during the Excelsior count week and another in Pipestone, 2/4 (ND).

Eastern Bluebird
Five February reports, probably all of early migrants from Rice, Nicollet and Dakota on 2/17; Olmsted 2/22 and Wabasha 2/27.

Townsend's Solitaire
Reported from Cook 12/6 (R. Johnson); Redwood 12/24 (RJ, RG) and Austin, Mower County from 1/8-28 (RRK, m.ob.).

Hermit Thrush
Reported in Stearns 2/8 (RG) and Hennepin 1/1-2/15 (m.ob.).

American Robin
Reported from 29 counties throughout the state with a statewide CBC count of 38 (53 L.Y.).

Varied Thrush
Two reports: Aitkin 12/7 (JB) and Duluth 12/7-27 (m.ob.).

Northern Mockingbird
One report from Ramsey on the 12/7 MRBA but no details received. Also reported on the Cottonwood CBC.

Brown Thrasher
Two reports: One overwintered at a Crow Wing Co. feeder (*fide*, WN), and in Freeborn 1/10 (RG).

Bohemian Waxwing
Reported from 33 counties in all but the southeast region. Most numerous in Duluth and the northwest region. The south region reports were from Redwood, Brown, Nicollet, Lesueur and Rice. A statewide CBC count of 3193 (1386 L.Y.) with 878 recorded on the Duluth count.

Cedar Waxwing
Reported from 30 counties throughout the state, primarily in the south and west regions. A statewide CBC total of 617 (726 L.Y.)

Northern Shrike
Widespread but not quite as many as last year. Reported from 51 counties (61 L.Y.) throughout the state with a total CBC count of 66 (91 L.Y.).

Loggerhead Shrike
Very early migrants in Anoka **2/20** (KL) and Fillmore **2/28** (J. Hockema and A. Risser). The one recorded in McDougall Township, Morrison County on **2/3** (P. Svingen) may also be a very early migrant or could it have overwintered in the area? Whichever it was it needs documentation (Ed.).

European Starling
Reported from 84 counties throughout the state (not seen in Kittson, Mahnomen and Kanabec). Statewide CBC total of 19,273 (9516 L.Y.).

YELLOW-RUMPED WARBLER
One reported in Victoria, Carver Co. on the 12/30 MRBA. This bird was described by the observer as the Audubon's race of the Yellow-rumped Warbler.

PINE WARBLER
One at a Willmar feeder on 1/17 (RG).

Northern Cardinal
Reported on the Grand Rapids CBC; in Aitkin County and in 31 additional central and south region counties. Also noted as "increasing in Marshall", Lyon (HK).

Rufous-sided Towhee
One reported intermittently throughout the period at a feeder in south Minneapolis (fide RJ).

American Tree Sparrow
Reported from Clay and Becker in the northwest region plus 32 additional south and central region counties. Statewide CBC count of 1510 (2635 L.Y.).

Fox Sparrow
Reported on the Fergus Falls and Faribault CBC's and in Cottonwood 12/5 (LF).

Song Sparrow
Reported on the Duluth, Grand Marais, Wild River, Lamberton, Excelsior, St. Paul and Albert Lea CBC's.

White-throated Sparrow
Reported on the Duluth, Crosby, St. Paul NE, Excelsior, Mankato, Faribault and Austin CBC's. Also reported from Houston and Fillmore.

White-crowned Sparrow
Reported on the Marshall and New Ulm CBC's, in Nicollet 1/29 (MF) and Kandiyohi 1/18 (RJ).

Harris' Sparrow
Reported on the Marshall, Lamberton and St. Paul CBC's and from Martin and Mower Counties.

Dark-eyed Junco
Reported from 52 counties (47 L.Y.) throughout the state. Statewide CBC total of 2672 (4024 L.Y.).

Lapland Longspur
Reported from 18 south and west region counties.

Snow Bunting
Reports down sharply from last year. Reported in only 30 counties (58 L.Y.) throughout the state. Common only in the SE and NW regions. Statewide CBC total of 2681 (6309 L.Y.).

Red-winged Blackbird
Reports from 20 counties throughout the state and a statewide CBC total of 407 (163 L.Y.). High count of 351 on the St. Paul NE count.

Meadowlark (sp.-?)
Reported on the Wild River and Owatonna CBC's and in Chippewa on 12/29. February reports from Hennepin 2/2-17, Rice 2/21, Murray 2/25, Cottonwood 2/26 and Wilkin 2/27.

Yellow-headed Blackbird
Reported in Nicollet on 1/14 by DNR personnel (fide J. Schladweiler).

Rusty Blackbird
Reported from 15 counties throughout the state.

BREWER'S BLACKBIRD
North east reports from Cook until 1/23 (KMH); in Lake Co. a female at Isabella until 1/8 and a male was present throughout January and February (SW/MS); in Duluth, two were present at feeders 12/15-31 (*fide*, KE). Also reported on the Grand Rapids and Fergus Falls CBC's.

Common Grackle
Reported from 36 counties throughout the state.

Brown-headed Cowbird
Reported only in Rock 1/2 (2, MK).

Pine Grosbeak
Much scarcer than last year. Reported in only nine north region counties and common only in the northern half of the northeast region. Statewide CBC total of 395 (1319 L.Y.).

Purple Finch
Reported from 40 counties throughout the state and a statewide CBC total of 401 (574 L.Y.).

HOUSE FINCH
Reported in Marshall 12/21-27 (KH), and in Hennepin; male and a female at a Brooklyn Park feeder 12/30-2/28 (m.ob.).

Red Crossbill
Reported from five north, six central and one south region counties. A statewide CBC total of 103 (18 L.Y.)

White-winged Crossbill
Reported from four northeast region CBC's and a north central report from Cass 2/9 (6,RG). The statewide CBC total of 35 is up from last year's count of nine.

Common Redpoll
Reported from 54 counties throughout the state (56 L.Y.) Widespread and common throughout the north and central regions. A statewide CBC total of 5594 (4624 L.Y.).

Hoary Redpoll
Reported from seven north region counties and adjacent Otter Tail and Pine Co's in the central region.

Brewer's Blackbird, February 1987, Isabella, Lake County. Photo by Steve Wilson.

Pine Siskin

Reported from 42 counties (39 L.Y.) throughout the state. A statewide CBC total of 1153 (1202 L.Y.).

American Goldfinch

Reported from 40 counties throughout the state with a total CBC count of 1513 (2881 L.Y.)

Evening Grosbeak

Common in the western half of the northeast and the north central regions. Widespread but scarce in the balance of the state with reports from 28 counties (55 L.Y.).

House Sparrow

Not seen in Carlton and Clearwater Co's.

CONTRIBUTORS

Agassiz NWR (ANWR)
Karl Bardon (KB)
Tom and Bette Bell (TBB)
Al Bolduc (AB)
Don Bolduc (DB)
Jerry Bonkoski (JB)
Betty & Doug Campbell (BDC)
Steve Carlson (SC)
Horace and John Chamberlain (HJC)
Nelvina DeKam (ND)
Kim Eckert (KE)
Fred Eckhardt (FE)
Bob Ekblad (BE)
Laurence and Carol Falk (LCF)
Mrs. L. Feil (LF)
Herbert and Jeanette Fisher (HJF)
Eugene and Marilyn Ford (EMF)
John Frentz (JF)
Merrill Frydendall (MF)
Ray Glassel (RG)
Ellen Hawkins (EH)
Katherine Haws (KH)
Marshall Helmberger (MH)
Nestor M. Hiemenz (NH)
Ken and Molly Hoffman (KMH)
Robert Holtz (RH)
Nancy Holway (NHo)
James Howitz (JH)
Robert B. Janssen (RJ)
Oscar Johnson (OJ)
Roger and Gretchen Johnson (RGJ)
Byron Kinkade (BK)
Ron and Rose Kneeskern (RRK)
Tom Kogut (TK)
Erlys Krueger (EK)
Henry Kyllingstad (HK)
Ken LaFond (KL)
Jean Leckner (JL)
Fred Lesher (FL)
Wm. H. Longley (WL)
Sandy & Orvis Lunke (SL)
Don and Wynn Mahle (DWM)
Grace Marquardt (GM)
Gordon and Artis Martinson (GAM)
Thomas McMullen (TM)
Steve and Diane Millard (SDM)
Mark Moore (MM)
John Morrison (JM)
Warren Nelson (WN)
Carol Oleson (CO)
Dan Orr (DO)
Johanna Pals (JP)
Paul Pedersen (PP)
Greg Pietila (GP)
Anne Marie Plunkett (AP)
Walter Popp (WP)
Steven Schon (SS)
Gary Simonson (GS)
Thomas C. Sobolik (TS)
Dave Sovereign (DS)
Jack Sprenger (JS)
Evelyn Stanley (ES)
Keith & Shelley Steva (KSS)
Forest and Kirsten Strnad (FKS)
Mark Tacke (MT)
Thomas Tustison (TT)
Timothy Webb (TW)
Steve Wilson & Mary Shedd (SWMS)
Dave Zumeta (DZ)
Mpls Rare Bird Alert (MRBA)
Duluth Rare Bird Alert (DRBA)
Many Observers (m.ob.)

CHRISTMAS BIRD COUNT SUMMARY

LOCATION	DATE	COMPILER	NUMBER OF PARTICIPANTS	TOTAL SPECIES
Albert Lea	1/3/87	Charles Howard	14	38
Aurora	1/3/87	Chuck Neil	12	25
Austin	1/3/87	Terry Dorsey	--	38
Baudette	12/28/86	Martin Kehoe	6	23
Beltrami Island	12/30/86	Martin Kehoe	7	18
Bemidji	12/20/86	Eric C. Nelson	14	25
Bloomington	1/3/87	Don & Sue Kratsch	31	38
Crookston	12/20/86	Tom Feiro	6	24
Crosby	12/20/86	Jo Blanich	14	31
Duluth	12/20/86	Kim Eckert	52	55
Excelsior	1/4/87	Phyllis Pope	40	42
Fargo-Moorhead	1/4/87	Ron Nellermoe	28	26*
Faribault	12/20/86	Forest Strnad	16	38
Fergus Falls	12/20/86	Paul Anderson	15	43
Grand Forks-East Grand Forks	12/21/86	Frank Kelley	4	16*
Grand Marais	12/20/86	Ken Hoffman	9	32
Grand Rapids	12/20/86	Tom Sobolik	17	28
Gunflint Trail North	1/3/87	Mark Stensaas	1	9
Hastings-Etter	12/28/86	Ann McKenzie-Jonathon Peterson	23	37
Hibbing	12/27/86	Janet Decker	19	24
Isabella	1/3/87	Steve Wilson	43	28
Lac Qui Parle	12/20/86	Micki Buer	3	25
La Crosse	12/20/86	Fred Lesher	6	24*
Lamberton	12/20/86	Lee French	5	33
Mankato	12/27/86	Merrill Frydendall	11	36
Marshall	12/19/86	Henry Kyllingstad	9	38
Mpls. North	12/20/86	Donn Mattsson	19	40
Mountain Lake-Windom	1/1/87	Edna Gerber	14	32
New Ulm	12/27/86	Mark Tacke	14	24
Owatonna	12/20/86	Darryl Hill	15	34
Rochester	12/20/86	Jerry Bonkoski	18	50
St. Paul	12/20/86	Jerry Freeman	37	48
St. Paul NE	12/27/86	Persis Fitzpatrick	52	45
Sax-Zim	12/22/86	Mark Stensaas	7	23
Wabasha	12/27/86	Donald Mahle	6	35
Warren	1/1/87	Gladwin Lynne	12	23
Wild River	12/27/86	Tom Anderson	18	41
Willmar	12/20/86	Ben Thoma	6	23
Winona	12/20/86	Walter Carrol	17	32

*Minnesota Records Only

11008 Jefferson NE Blaine, MN 55434

Proceedings of the Minnesota Ornithological Records Committee

by Kim R. Eckert

The following records were voted on, January-May, 1987, and found Acceptable. (Normally June records would also appear in this summary, but voting on some records from that month, and from late May, has yet to be completed):

—Mute Swan, 4/27/86, Carlos Avery W.M.A., Chisago Co. (vote on identification 7-0; vote on wildness: 7 Acceptable as Cc, 2 probable escapes and Unacceptable, 1 non-voting observer). For an explanation on votes on wildness, see ***The Loon*** 58:42-43.

—Iceland Gull, 12/2-9/86, Grand Marais, Cook Co. (vote 7-0; ***The Loon*** 59:54-55).

—Pacific Loon, 10/9-23/86, Lake Vadnais, Ramsey Co. (vote 7-0; ***The Loon*** 59: 50-51).

—House Finch, early Dec. 1986 - 2/8/87, Golden Valley, Hennepin Co. (vote 7-0).

—Barrow's Goldeneye, 2/25/87, Minnesota R. near Black Dog L., Hennepin/Dakota Co's (vote 6-1).

—Prothonotary Warbler, 9/23/86, Mayowood L., Olmsted Co. (vote 7-0).

—Great Black-backed Gull (adult), 12/15/86-2/22/87, Duluth, St. Louis Co.; Great Black-backed Gull (imm.), 1/10-2/18/87, Duluth; Iceland Gull (adult), 2/2/87, Duluth; Iceland Gull (3rd winter), 12/17/86-1/10/87, Duluth; Iceland Gull (2nd winter), 12/17/86-1/17/87, Duluth (votes on all five records 7-0; ***The Loon*** 59:100-101).

—Turkey Vulture, 2/9/87, near Rushford, Fillmore Co. (vote 5-2; ***The Loon*** 59:56-57).

—Carolina Wren, 1/24/87, Lanesboro, Fillmore Co. (vote 7-0; ***The Loon*** 59:56).

—Carolina Wren, 11/19/86-3/3/87, Austin, Mower Co. (vote 7-0; ***The Loon*** 59:103).

—House Finch, 12/21-24/86, Marshall, Lyon Co. (vote 7-0).

—Ruby-crowned Kinglet, 2/4/87, Edgerton, Pipestone Co. (vote 6-1; ***The Loon*** 59:54).

—Turkey Vulture, 1/17/87, near Minneopa S.P., Blue Earth Co. (vote 5-2; ***The Loon*** 59:105).

—Eurasian Wigeon, 3/11/87, Oakleaf L., Nicollet Co. (vote 6-1).

—Loggerhead Shrike, 2/28/87, near Lanesboro, Fillmore Co. (vote 5-2).

—Turkey Vulture, 2/7/87, near Eitzen, Houston Co. (vote 6-1).

—Pine Grosbeak, 4/13/87, Roseville, Ramsey Co. (vote 5-2).

—Clark's Grebe, 5/2/87, Heron L., Jackson Co. (vote 7-0; ***The Loon*** 59:102).

The following records were voted on January-May, 1987, and found Unacceptable:

—Lazuli Bunting, 8/27/86, Stoney Point, St. Louis Co. (vote 4-3, with 6-1 required for acceptance). The rump and tail were not visible, which would show some diagnostic blue coloration on a Lazuli, and some felt the description of this female or immature could also fit a juvenal American Goldfinch or an atypical Indigo Bunting or possibly a hybrid bunting. It was agreed that the identification was possibly correct, but identification of female/immature buntings is tricky enough that the minority felt it was best not to accept.

—Rough-legged Hawk, 9/7/86, near Moorhead, Clay Co. (vote 2-5). The entire identification was based on a "light area at the base of the tail and the ... dark band on the tail end"; however, for such an early date the majority felt that more of the plumage should have been described, and that immature Red-taileds have a lot of white on the upper tail coverts and a brown tail which might also fit the description.

--Chestnut-collared Longspur, 11/23/86, Kurtz Twp., Clay Co. (vote 2-5). The identification of non-breeding-plumaged longspurs is very difficult, and the description of this late individual was not clear enough to eliminate Smith's or even McCown's. Laplands were present for comparison and this was clearly not a Lapland, but not enough information was given to say which of the other three it was.

--Common Nighthawk, 3/10/87, Minneapolis, Hennepin Co. (vote 0-7). The bird was never seen for sure, and the entire identifiction of this extremely early individual was based on a call heard out a window; however, the observer himself admits it could have been a starling -- it could also have been

the similar call of a goldeneye from the nearby river.

--Pine Warbler, 3/22/87, Roseville, Ramsey Co. (vote 0-7). The very sketchy description from the inexperienced observer was not complete enough to eliminate the possibility of a kinglet.

--Common Raven, 2/6/87, Minneapolis, Hennepin Co. (vote 1-6). No binoculars were used, and the reported larger size is suspect since there apparently was nothing nearby for comparison; the folded tail reportedly had a "wedge shape" but crows in molt can have atypical tail shapes which can appear wedge-shaped.

--Scarlet Tanager, 4/4/87, Bloomington, Hennepin Co. (vote 0-7). This greenish bird with black wings might have been an extremely early tanager, but not enough description of other features -- e.g., size, shape or bill -- was given to eliminate other possibilities like a female crossbill.

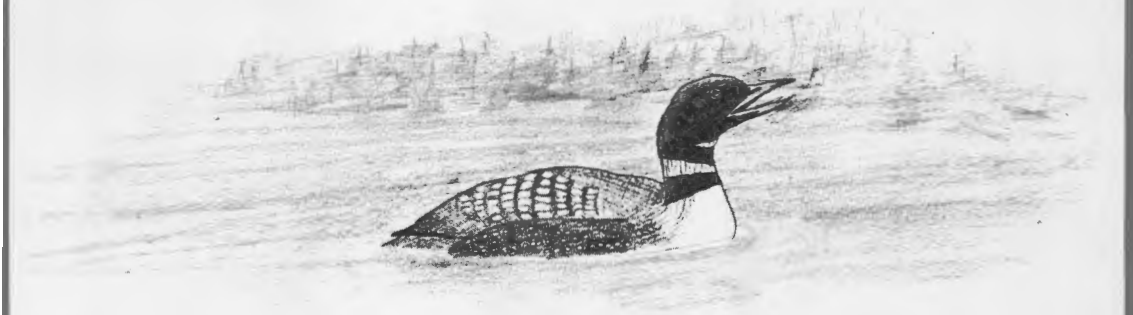
--jaeger (sp.-?), 4/10/87, White Bear Lake, Ramsey Co. (vote 2-5). The observer, who had no previous experience with jaegers, was not using binoculars, the bird was described as the size of a "big gull" (jaegers are smaller than this), and the identification was made only from memory after looking at field guides three hours later.

--Common Nighthawk, 4/4/87, North Oaks, Ramsey Co. (vote 0-7). No bird was ever seen and the identification was only based on hearing the nighthawk-like call given on or over a lake; most likely the observer heard a goldeneye which has a call very similar to a nighthawk.

--Kentucky Warbler, 4/25/87, near Ortonville, Big Stone Co. (vote 2-5). The sketchy description was not complete enough for such an unusual record, and the facial pattern described did not accurately describe a Kentucky Warbler. In addition, the details clearly show the observers were influenced by looking at field guides at the time of the observation, and these inexperienced observers had difficulty getting a clear look at the bird.

9735 North Shore Dr., Duluth, MN 55804

Evening Grosbeaks, Summer 1987, Lake Vermillion, St. Louis County. Photo by Robert O. Ferguson.



NOTES OF INTEREST

A MAGNIFICENT HUMMINGBIRD IN BOYD, LAC QUI PARLE COUNTY — July 5, 1987: On Friday, July 3, 1987, I saw a hummingbird in my back yard. It was the first one in over a month so I reached for my binoculars to see if it was a male or female Ruby-throat. I saw no ruby throat. It was then I noticed the bird was dark green, almost black, with a green head. I noticed no white front. The bird looked larger than a Ruby-throat. It fed on hollyhocks, making the leaves move from its wing movement. I saw it only a short time before it flew to a tree in the yard. I did not see a Ruby-throated Hummingbird.

The bird is here now! (July 7), it must be a Rivoli's. It's large in size, about ⅓-½ larger than a Ruby-throat. It has a black front. I could see the green throat when it flew. The head looked black with green shoulders. The lower back was greenish with some rusty color. As it sat with its back to me, a spot of white showed on each side by the lower wing. Its eyes were dark. Its bill was long, dark bluish in color with a long tongue.

It then sits on my martin house wire, then flies up in the air a few feet. It appears to be catching insects. It returned to my view again and I can see a bit of white by its eyes. The tail is brown down the center, darker on the sides.

Once the throat looked bluish. It could be because of more light. There are no white feathers on the forked tail. It has a flat head.

Chuck and Micki Buer and Mr. and Mrs. Haugen came and observed it. Chuck took pictures. Mrs Haugen said the green was irridescent. The green throat did not show all the time.

The bird was on the martin wire when an angry robin sat beside it. The robin didn't like a stranger in his yard and the Rivoli's flew away. This occurred at 12:30 p.m.

July 7, 1987:

Today I saw a 7-Up can about the same color as the bird had (green throat). In conversing with a neighborhood lady, she stated she had seen "a black hummingbird" the middle of last week on her flowers. It could have been a couple of days before I saw it.

Fred Eckhardt,
Boyd, MN 56218

— On the morning of July 5, 1987, we received a telephone call from Fred Eckhardt of Boyd, Lac Qui Parle County about a large hummingbird with a black belly that was being seen in his flower garden. Micki suspected that the bird was a Magnificent (formerly Rivoli's)

Magnificent Hummingbird, 5 July 1987, Boyd, Lac Qui Parle County. Photo by Chuck Buer.

so we went to Boyd. About 12:00 p.m. the bird was observed feeding amidst some hollyhocks and then perched on a wire above the garden. The bird was a male Magnificent Hummingbird. Micki made the following field notations: Male hummingbird, of large size with a long bill; when facing to the north away from us had a greenish back; bird turned and faced us and saw a black breast and belly with an irridescent emerald to bluish-green throat depending on way light was absorbed by the feathers; the crown appeared irridescent with purplish-black to royal purple color; had a white spot behind the eye; its tail was shallowly forked. Chuck took some photographs with an 800 mm lens. The bird was approximately 50 feet from us. Light conditions were a hazy sun with periods of brightness. Other observers included Arnold and Dolly Haugen and Fred Eckhardt.

Chuck and Micki Buer,
Rt. 2, Dawson, MN 55632

Editor's Note: The last time the bird was seen was when Chuck Buer photographed it at noon on Sunday, July 5. About 20 Minnesota birders including myself converged on Boyd July 6. By 7:00 a.m. a few birders were in the area. They stayed all day on the 6th and into the morning of the 7th, but the Magnificent Hummingbird was never seen again. This represents species #402 for Minnesota and is probably one of the most unusual records for the state.

EURASIAN WIGEONS IN NICOLLET COUNTY — On March 11, 1987, my brother Tony and I observed two male Eurasian Wigeons on Oakleaf Lake along Minnesota Highway 99 just west of St. Peter, Nicollet County. The circumstances of the sighting were as follows: There were two male Eurasian Wigeons swimming near each other and in a group that also consisted of American Wigeons, Redheads, Ring-necked Ducks and unknown females that

we assumed were wigeons. The two male Eurasian Wigeons were close enough together to get both in the field-of-view at the same time. We watched for a length of time that satisfied our curiosity, and then began scanning the rest of the lake. Quite a distance away, but also about 20 minutes later, we confirmed another male Eurasian Wigeon. We counted this as a third, but in retrospect, it may have been one of the two seen earlier. We feel this is unlikely since there was no major movement of groups of ducks during this time, but it remains inconclusive. We observed the birds for over 30 minutes at distances as close as 200 feet. Our description of the birds is as follows: Duck-like in shape and behavior, bill duck-like, dissimilar to Canvasback, grebe or merganser. Head rust red with pale color crown stripe, of uncertain color (I might have said "white" except that nearby American Wigeons had much whiter, brighter crowns). Body generally drab except 1) periodic exposure of white wing mark, and 2) bold white and black contrast at rear, completely dark under the tail. Bird comparable in size to American Wigeon and Redhead, but somewhat more slender than Redhead (both in view at same time). From notes: body color drab (gray or light brown?), but an unclear value-separation between lower neck/chest, and back/sides. Lower neck/chest warmer in tone? After systematically eliminating each similar species, and even some not-so-familiar species, we were left with no choice. The moment we suspected Eurasian Wigeons we began the process of identification, but for each alternative there were clear contradictions, whereas for the wigeon there were no contradictions.

In addition, each of the most obvious field marks were confirmed, although the pale red of the lower neck and chest was not particularly evident. The best we could say was there was a tone distinction between these areas and the back and sides.

On the Request for Details Form, I indicated that we initially suspected Green-winged Teal, which might seem odd to you, and warrants an explanation. We had been looking at both Canvasbacks and Redheads immediately prior to spotting the Wigeons. Thus, the reddish head but LIGHT chest caught our attention as different, and before the crown stripe was evident we briefly remarked, "What's this? Green-winged Teal?" It was quickly followed with a "Wait a minute, something's wrong here." Essentially, our identification began with this elimination of Green-winged Teal. The presence of both American Wigeons and Redheads was extremely useful in identifying these birds. These ducks were Eurasian Wigeons with reddish heads and paler (not white) crown stripes.

Paul Hertzel,
P.O. Box 664, Mankato, MN 56002

AN ALBINISTIC KILLDEER IN DULUTH — On the morning of April 21, 1987, I attended the dawn session of Kim Eckert's bird identification class. We met at the recreation area on Park Point and, after birding the beach house area, drove down to Sky Harbor airport. We walked down the gravel road running parallel to the runway, searching for spring migrants along the adjacent treeline and in the bay. Among the birds seen in good numbers were Horned Grebes and Red-breasted Mergansers, no doubt capitalizing on the smelt run in progress.

I departed the group early to return for school and walked back along the gravel road. Along the runway ahead of me, I spotted a group of birds feeding in the grass. I could see some starlings, a Killdeer, and a white bird of some kind. At first glance its upright posture suggested a small gull. When I raised my binoculars, I could see that it was a plover. I went to get the rest of the group and we returned to watch the bird. Judging by the size, shape and proximity of the bird to the Killdeer, we decided that this odd bird was also a Killdeer. The head, back, breast and belly to the tail were a clean, snowy white. The scapulars were white flecked with grayish-brown. The folded flight feathers were sandy colored with darker-tipped primaries. The eye was dark but the bill was a reddish-pink color with the hint of a darker tip and the legs were grayish-beige. At the time, the tail wasn't visible beneath the folded wing tips. The birds were running about and feeding on the runway and in the grass median. As we approached, both Killdeers took flight and called. In flight

Albinistic Killdeer, 21 April 1987, Park Point, Duluth. Photo by Kim Eckert.

the unusual bird showed normal feathers and a normal rump and tail. The orange of the rump was a bit paler than that of its companion. The call and behavior were normal.

Kim and I returned several hours later to take some photographs. The birds were timid and difficult to approach but some long distance shots were taken.

The Killdeer was seen well into May when birders' trips to Park Point effectively ceased.

John Terres, in his **Encyclopedia of North American Birds**, states that studies by Gross (1965) have shown that although albinism in sandpipers is apparently not rare (39 records in 17 species), it does appear rare in North American plovers. Gross found only four individuals showing albinsim in two species.

Parker Backstrom,
5420 Mt. Normandale Dr., Bloomington, MN 55437

ALBINO RED-TAILED HAWK — On July 12, 1987, while participating in the M.O.U. weekend field trip to Aitkin County, Anne Marie Plunkett and I observed an all white hawk. The individual was seen about two miles north of MacGregor, Aitkin County, along State Highway #65. As we were proceeding south on the highway both of us spotted a white "object" in a tree about 200 yards to the east of the highway. At first sighting I was not sure the object was a bird. As I was making a U turn in the highway to get on the right side of the road, I said to Anne Marie, "it looks like an egret". Viewing the object with binoculars immediately confirmed it was a bird; to our surprise it was a large hawk! Viewing through telescopes revealed an all-white hawk approximately the size of a Red-tailed Hawk. The entire body of the bird was pure white, like a Great Egret. The feet and legs were yellow, the beak a fleshy color with a light yellow cast. The eye appeared dark. After viewing for two to three minutes, the bird flushed and flew to the south, perching in another tree. In flight we confirmed that the total underside of the bird, including the tail, was white.

We did not see any coloration of any kind anywhere on the bird except on the beak, legs, feet and eyes, as mentioned above. The bird then flew to the east and disappeared over a rise. It was an extraordinary bird to watch as it flew; the all-white plumage contrasting with the green foliage. I felt the bird was a Red-tailed Hawk because of size, general proportions and flight patterns which we noticed as it was perched and in flight. This is my first experience with an albino hawk of any kind. I have looked at hundreds, and more likely thousands, of Red-tailed Hawks, many with partial albinism, but never a total albino as this individual appeared to be.

Robert B. Janssen,
10521 S. Cedar Lake Road, Minnetonka, MN 55343

BRANT AT SALT LAKE — On a field trip to Salt Lake, Lac Qui Parle County on March 27, 1987, an unusual migrant waterfowl was observed on a small farm pond. Having lived on both the east and west coast, the Atlantic and Pacific brant are no strangers — but this is the first seen by myself in Minnesota. It was closely watched from my car for nearly an hour, at a distance of 30 to 70 yards. Field sketches were made, as my telephoto lens for my camera was not along. It was only slightly larger than the mallards it mixed with, but was less than 50% the size of three Canada Geese it was swimming with. The short bill, gray-black head and body, white neck stripes, ending well back on the neck, but continuing around the front — white under-tail coverts, and partially white sides were noted. The pond was located ½ mile inside Minnesota from the South Dakota border — four miles south of Highway 212.

Rolf Pederson,
P.O. Box 9, Montevideo, MN 56265

YELLOW RAIL IN LAC QUI PARLE COUNTY — On the evening of April 26, 1987, we went to a marsh in section 2, Manfred Township, Lac qui Parle County, where a suspected Yellow Rail was heard the day before. Between 8:45 and 9:30 p.m., we heard a Yellow Rail calling approximately every 5 minutes. The call was a rhythmic ticking (tic-tic, tic-tic-tic, tic-tic, tic-tic-tic) that sounded much like two stones being tapped together. We were familiar with the calls of this species from birds that we heard calling up in the McGregor marsh in Aitkin County. Walter and Dorothy Breckenridge, and Goodman and Marge Larson met us and also heard the bird calling.

Chuck and Micki Buer,
Rt. 2, Dawson, MN 56237

SUMMER SIGHTING OF A ROUGH-LEGGED HAWK — Keith Camburn and I were returning to Duluth on the evening of 22 July, 1987. We had just completed a successful swing through western Minnesota having located both Snowy and Cattle Egrets at Ashby and a singing male Sprague's Pipit at Felton Prairie. As we were driving east on Minnesota Highway 89 in Beltrami County, Keith spotted a large hawk sitting on a fence post ahead of us, on the north side of the highway. He tapped me and brought my attention to it. Both of us assumed it to be another Red-tail, a bird we saw many of throughout the western part of the state. As we drove by, I saw the solid brown belly band below a buffy, heavy breast and head. I turned to Keith and said, "That was a Rough-leg!" We were suprised by this discovery so we turned our car around in order to observe the bird and looked at it through binoculars. As the hawk sat facing us, we could see the field marks mentioned above. After about 30 seconds, the bird took flight and flew away from us across a large open field. Before it landed out of sight in a large aspen tree, we saw more field marks: a bicolored (white basal half, brown proximal half) tail, the belly band, and a brown dorsal surface with

large white "windows" at the base of the primaries. Both Keith and I realized that a summer sighting of a Rough-legged Hawk in Minnesota was unusual and discussed the possibility of the bird being old or sick, but we saw no indication of it being anything but healthy. After getting home, I checked my copy of Green and Janssen (1975) and was surprised to find only four previous summer records: June 2 and July 10, 1950, Duluth; June 16, 1984, Lake Vermilion, St. Louis County; June 28, 1967, Lude, Lake of the Woods County; August 26, 1941, Waskish, Beltrami County.

Parker Backstrom,
5420 Mt. Normandale, Bloomington, MN 55427

SAGE THRASHER AT GRAND MARAIS — On May 14, 1987 at 9 a.m., we were walking southwest along the beach on the east bay at Grand Marais. As we approached the Best Western Motel, a bird jumped out of the grass and perched on a rock long enough for us to know we were observing an unusual species. For the next 22 minutes we closely observed the bird, often approaching to within 25 feet, using 7x35 binoculars, observing at various angles and with light conditions ranging from full sun to overcast as clouds occasionally darkened the sun. We were able to observe the bird several more times during the day. Following is a summary of our observations from notes taken while watching the bird and before consulting a field guide or other reference: The iris was pale yellow, bill and legs dark (not black) and feet seemed a shade darker but this may have been due to light conditions rather than true color difference. Overall the bird was very pale. The back and back of the head were a pale sandy gray, the wings slightly darker and browner, the tail a shade darker than the wings and browner than the wings. The wing feathers appeared edged thinly with gray or buff. A small thin scalloped whitish wing bar was distinct but a lower wing bar was not evident. Even at close range the greater wing covert feathers did not seem tipped with enough gray or buff to create any wing bar. When the tail was fanned in short flights, prominent white tips were seen. This tail pattern was best observed as the bird teetered for some time on a clothes line, fanning its tail for balance. The exterior tail feathers had the

Sage Thrasher, 15 May 1987, Grand Marais, Cook County. Photo by Kim Eckert.

sharpest largest white tips, about as large as the tip of a small finger. Less white showed on the more central tail feathers, and the very center tail feathers appeared to have no white. The bill was curved down very slightly and looked much like a thinner shorter version of a Brown Thrasher's. The forehead and an area above the eye were darker, and the cheek patch was lighter with more buff than the sand gray of the rest of the head; the lores were pale gray. There was a thin dark line (like a tear streak) down the cheek patch. The chin and throat were white, with two symmetrical thin dark lines running from the lower corners of the lower mandible to the chest. The ground color of the chest was nearly white. Well-defined dark spots marked the chest in linear rows from throat to belly. The belly was more streaked than spotted, and the sides had only very pale streaking. Buff underlying the streaking was most noticeable on the upper part of the flanks. The area between the legs and the under tail coverts was unmarked and very light. Our initial feeling was that the bird was slightly smaller than an American Robin and slimmer in build. This was confirmed as the bird approached the small pond adjacent to the motel and was immediately challenged by a resident male robin. A brief violent skirmish caused the smaller bird to return to the grass and gravel near the motel. The bird fed much like a robin, hopping, stopping motionless, suddenly jabbing at food on the ground and making frequent short flights. The flight was similar to a Song Sparrow in that the pumping motion of the tail was evident. We noted what may have been a damaged area in the breast feathers and an unusual frequent bill gaping which was not accompanied by any vocalization. During our obersvations the bird was silent.

We had decided almost immediately that the bird was a thrasher and guessed that it was a Sage Thrasher. This tentative identification was not based on experience with any of the western thrasher species but only on familiarity with Minnesota records and some knowledge of field guide descriptions. We checked the applicable guide we had in our car, Robbins, and were somewhat surprised at the picture of a rather dark-backed bird with prominent wing bars. Concerned by this picture in Robbins and admitting to possible confusion of Sage and Bendire's Thrasher species, (Bendire's is shown in Robbins as a pale sandy colored bird with barely discernable wing bars) we checked other field guides and references at the public library. As more sources were consulted, it was evident that this bird's pale dorsal color, poorly defined wing bars and near absence of superciliary stripe were field marks consistent with many of the Sage Thrasher descriptions, and that the dark well-defined breast spots, smaller-than-robin size, prominent white tail marks and moderate tail length all indicated the bird was a Sage Thrasher.

Ken and Molly Hoffman,
Gunflint Trail, Box 30, Grand Marais, MN 55604

Editor's Note: Approximately one week later the bird was found dead in the parking lot of the Best Western Motel.

SOME BOREAL AND NORTHERN SAW-WHET OWL COMPARISONS — The following comparisons are based upon sightings of three Boreal Owls between November 2, 1986 - March 1987, and draw on the experience of several Northern Saw-whet Owl observations over the past few years. Each of the three Borealss could easily be identified by their varying field marks as being three different individuals. The first Boreal Owl, seen on November 18, 1986, was picture-book perfect, closely adhering to the descriptions in the field guides. It was noticeably larger than a Saw-whet, had a yellow bill, had whitish facial discs framed with black, and had a black forehead spotted with white. The second Boreal, seen on February 18, 1987, closely resembled the first one, except its bill was light blue.

The third Boreal, seen on March 21, 1987, was more difficult to identify. It was smaller than the above two owls, approximating the size of a Saw-whet, had a dark bill, with black

Boreal Owl, Duluth, 18 February 1987. Photo by Jeff Newman.© Note different pose from bird pictured in the *The Loon* Vol. 59:52, Spring 1987.

facial frames indistinct and nearly lacking, and had a forehead that was dark brown instead of black. The one field mark that the above three Boreal Owls had in common was a spotted forehead. The one behavioral trait that they shared was a tendency to either shut their eyes or turn their heads away from me as if they were disinterested in my presence.

All but one Saw-whet observed had dark bills (the exception's bill was yellow), buffy facial discs (one exception leaned toward erythrism), no noticeable facial frames, brown foreheads streaked with white, Their field marks didn't differ substantially from one another except for the two birds noted above. The red-phased bird was brighter colored, tending toward a rich reddish-brown throughout. This color was brightest on the facial discs and streaked underparts. Most Saw-whets can be carefully approached to within a distance of six to eight feet, without flushing, if they are on their originally chosen daytime perches. These perches are the most concealed ones available. If they are flushed, most would choose their next perch higher up, in a less concealed position, and obviously be more susceptable to predation. Others are unapproachable.

They were seen perched from two to twenty feet above the ground. Most were six to eight feet up in dense evergreens. Some were perched next to the tree trunk; others were far out on a limb. The Saw-whet's head doesn't always look round. It can also appear to be square, flat-topped, or cleft. It has been my experience that when a perched Saw-whet looks in any other direction than straight toward me, it is contemplating its exit. Considering the above similarities and discrepancies, the most consistent field mark difference between the Boreal and Northern Saw-whet Owls observed here was: Boreal owl — spotted forehead; Northern Saw-whet Owl — streaked.

Jeff R. Newman,
4401 Regent St., Duluth, MN 55804

INCURSION OF GRAY JAYS INTO SOUTHERN MINNESOTA, 1986-87 — In ***The Loon*** Volume 59:41-44, Kim Eckert documented a large invasion of Gray Jays into the Duluth area during the fall of 1986. His article documents the record of at least 470 individuals that were counted within the city limits of Duluth and along the North Shore of Lake Superior in St. Louis County. This invasion occurred all along the North Shore in Lake and Cook Counties and also outside of the Duluth area; however, exact counts were not made in these areas. The peak flight was from September 24 to October 8, 1986. The unusual numbers first became evident during the weekend of September 13-14 and the flight was considered to be over on October 25 in the Duluth area. There is evidence that an unusually large number of individual Gray Jays continued to move south of the Duluth area. The first evidence of this movement occurred in early October when six birds were seen between Kerrick and Willow River in Pine County between October 1 and 6. Three birds were seen in Kanabec County on October 12 and 20, another in Crow Wing County on October 20. A report was received from northern Chisago County on October 18 and another in Isanti County on October 20. An individual was reported in Hennepin County as early as October 15. This bird was seen flying southward over a busy highway in Bloomington. The most southerly records were one bird seen at Murphy-Hanrehan Park in Scott County on October 23 and another individual in Southern Washington County on October 28. During November additional birds were recorded in Anoka, Ramsey, Hennepin, Washington, Wright, Dakota, Chisago and Mille Lacs Counties. The last report of Gray Jays in southern Minnesota was on November 28 in Dakota County. There have been in the past other major incursions of Gray Jays into southern Minnesota at about the same time as the recording of large numbers of birds moving into the northern part of the state (similar to that documented by Eckert in Duluth and along the North Shore during the fall of 1986). Other incursions occurred in southern Minnesota during 1929-30, 1985-86, 1974 and 1976-77. Just what causes these incursions is unknown, but it is well documented that unusual numbers begin to appear in the northern part of the state in mid-September, with peak numbers in the northern part of the state in late September and early October. A few of these birds continued south to the

latitude of the Twin Cities. Almost all birds retreated from the south by early December and this same phenomenon is also noted in the north where birds returned to normal numbers at or about the same time. Why these birds retreat northward during mid-winter is also unknown.

Robert B. Janssen,
10521 A. Cedar Lake Road, #212, Minnetonka, MN 55343.

NORTHERN SAW-WHET OWL NESTING IN HUBBARD COUNTY — On April 6, 1987, my wife, Jeanette, and I saw an adult Northern Saw-Whet Owl perched at the entrance to an old Wood Duck nest box in the woods of our lot on the southwest shore of Kabekona Lake in Hubbard County. The bird was quite tame, and did not move when we appoached to within a few feet of it. The bird was noted at the same site on each of six days during the period, April 11, 1987 through April 22, 1987, and in the nest box on May 15, 1987. Several color photos were taken of it on April 22, 1987. Two young Saw-whet Owls were noted at the entrance of the nest box at 6:30 A.M. and at 4:00 P.M. on July 11, 1987. The appearance of the young was different from that of their parent. They were in juvenile plumage, that is, dark brown with white eyebrows forming a "V" over the bill. The belly of each was pale yellow.

Herbert J. Fisher,
HCR 70, Box 431, Laporte, MN 56461

Adult Northern Saw-whet Owl, 22 April 1987, Kabekona Lake, Hubbard County. Photo by Mrs. Jeanette L. Fisher.

ALBINO HOUSE WREN IN FILLMORE COUNTY — As George Heffern was working in his garden south of Spring Valley on April 11, 1987, he noticed that among the bluebirds and wrens staking our their claims to the four bluebird houses around his garden, there was one wren which which was pure white. As weeks passed, he further noticed the white wren and his normally plumaged mate carrying food into one of the bluebird houses. Later still in the summer, he observed an increase in the number of wrens around his garden. In early to mid-July, he notified Gordon and me; we found the all-white wren singing and visiting

one of the bluebird houses. Anne Marie Plunkett joined us on July 19 to scope the bird; we noted the absence of any color on any part of the bird, except for a slight "dirty" wash on the crown of the head. Legs were flesh-colored. The eyes appeared to be dark at times; at others, the presence of a red cast was debatable. The female in the box was in typical House Wren plumage. Periods of extreme heat and humidity occurred in the next two weeks, and by the first August, the white wren was no longer being seen. Also of interest was the observance on July 19 (while studying the albino House Wren) of an immature Swainson's Hawk cruising the area in the company of male and female adults. Swainson's were reported during July, 1986 in approximately the same area by Anne Marie Plunkett.

Mary Jo Dathe,
909 South Broadway, Spring Valley, MN 55975

Albino House Wren, 19 July 1987, near Spring Valley, Fillmore County. Photo by Mary Jo Dathe.

A SNOWY PLOVER AT AGASSIZ, NWR, MARSHALL COUNTY — At 3:30 p.m. on 15 May 1987, I was checking shorebird use of a drawdown on Northwest Pool, Agassiz NWR. The sky was overcast and light rain had just started to fall when I spotted a very frosty-looking shorebird that I immediately assumed to be a Piping Plover. At a distance of 150 m, the plover was easily seen against the dark mud flat, in contrast to numerous Semipalmated Plovers that only were visible with binoculars. With the aid of a 15-60 zoom telescope, I observed the bird for 20 minutes at distances between 100 to 150 m. The bird was approximately similar in size to the Semipalmated standing next to it. The most notable characteristics were dark smudges on each shoulder, on the auricular region behind each eye, and on the forehead. Of the three areas, the shoulder smudges did not extend onto the breast of the hind neck regions. Seen from the rear, the nape, hind neck, and back were the same color. The dark area behind the eye was the same width as the eye and extended back and downward but was spearated from the shoulder smudge by a white area. The smudge on the forehead was slightly darker than the crown and was separated from the eye by a narrow white eye line. The bill was very thin and appeared all black. The legs were all black. Having seen Snowy Plovers on the west and Gulf coasts, I was certain the bird was a female of this species. This represents the first sighting of Snowy Plover for Marshall County and Agassiz NWR.

Jim Mattsson, Refuge Biologist,
Aggassiz NWR, Middle River, MN 56737

ROCK WREN IN DAKOTA COUNTY — On April 19, 1987 a Rock Wren was flushed from a neighbor's back yard. The wren alighted on a sun deck and was observed from about 20 feet without binoculars. My first thought as the bird flushed was a Swainson's or Gray-cheeked Thrush because of its size and drab coloration. On further inspection, the bird was obviously a wren, not a thrush. Because of its large size and very pale coloration, I was able to identify the bird as a Rock Wren without field glasses. I quickly retrieved my binoculars and returned to verify the breast streakings, which are unique to this member of the wren family. Others saw the bird that evening and on the following day. Characteristic head bobbing was observed. Also interesting was the considerable time (15 minutes or more) the bird spent catching insects on my neighbor's roof. Also noted was the bird's preference for walking or hopping rather than flight to move from point to point. The only flight noted in about one hour of observation was from the roof to the low deck and back. I believe this to be a first record not on the North Shore or in the western portion of the state.

Tom Tustison,
2861 Highbridge Terrace, Eagan, MN 55121

A LAUGHING GULL AT AGASSIZ NWR, MARSHALL COUNTY — At 9:00 on 7 May 1987, I observed a flock of approximately 50 gulls standing on a dike road on the south shore of Agassiz Pool. The birds flushed about 50 m ahead as I approached in my vehicle. Although most of the gulls were adult Franklin's, a few Bonaparte's were noted. With the sun at my back, I focused my 8x35 binoculars on the rising flock and immediately saw one gull with an all black hood, a somewhat darker mantle, and an upper wing surface that graded into all black wing tip and lacked the white bar near the tip typical of breeding plumaged Franklin's. As the bird circled, I could see that the outer one-third of the ventral wing surface was dark, becoming black toward the tip. The tail was pure white. When the bird was about 150 m away, it appeared slightly larger than the Franklin's with which it was flying. The darker back and upper wing surface became even more apparent as the distance to bird increased. The bird was seen for about two minutes until it was lost from view as it flew out over Agassiz Pool. Attempts to relocate the gull were unsuccessful. Although the bill and feet were not clearly seen, I recognized the bird as an adult Laughing Gull, a species very familiar to me from the Atlantic and Gulf coasts states.

Jim Mattsson, Refuge Biologist,
Agassiz NWR, Middle River, MN 56737

YELLOW-THROATED WARBLER AT FRONTENAC — On May 24th, 1987, my husband Roger and I loaded up our birding gear and our son and decided that for once it might actually be dry enough to make it all the way out to Sand Point at Frontenac State Park. Down the trail just south of the point, we heard a warbler we didn't recognize. From a fleeting first glimpse all we determined was that it had a very yellow throat and a white belly. As the bird conveniently moved towards us at a height of only 15-20 feet, we noted its characteristics and determined we had a male Yellow-throated Warbler. The bird was warbler size with a uniform gray back, black streaked sides, a very bright yellow chin and throat and a totally white belly and white wing bars. The head had a black crown with a white eyebrow and a black triangular patch behind and somewhat below the eye was very distinct. Knowing we had a rare find, we hurriedly made our way back to the car to take notes and compare the song we had heard to that on our tape. The song being a perfect match, we decided to alert other birders. We contacted Bob Janssen and Jerry & Carol Gresser and let them spread the word. In the weeks to follow, many other birders were able to join us in adding a beautiful Yellow-throated Warbler to their Minnesota Life Lists.

Tammy & Roger Field,
541 Westview Dr., Hastings, MN 55033

WINTERING SHORT-EARED OWLS — Although the Northern Harrier and the Short-eared Owl share generally the same habitat, the owl has become an increasingly rare sight in the Upper Midwest. Perhaps it is much more sensitive to habitat disturbance and human encroachment than the harrier. It was very gratifying, therefore, to observe numerous Short-eared Owls in Wilkin County during the 1986-87 winter. The extremely mild weather and high rodent population created ideal conditions for overwintering raptors.

On November 16, 1986, I was in the Rothsay area checking for the Prairie Falcon that has become a bit of a legend as a wintering individual there. I found the falcon, then later spotted six Short-eared Owls hunting in the late afternoon. On November 23, I was again birding the same area and watched two Short-eareds soar up several hundred feet and "escort" a Rough-legged Hawk away from their feeding area. They dove and "barked" at the buteo, and continued their high flight for several minutes after the Rough-leg left. A total of seven owls were seen that day. In December I didn't see any Short-eareds, but sightings were up in January. On the eleventh I saw ten owls actively hunting in the bright sunlight. Winds were light that day with a temperature in the mid 40's. I'd seen them hunting in early afternoon on cloudy days, but was a little surprised to see this crepuscular species actively foraging in warm sunshine an hour and a half before sundown. In late February I saw six birds on the twentieth and at least five on the twenty-second. On this date two owls were vocalizing as they harrassed an early migrant male northern harrier. One of them was carrying a vole as it chased the harrier. To me the "ee-YOWP" call sounds like a "sneezy bark." This call was heard on numerous occasions, as when chasing other raptors, interacting with others of its own kind, and even once when one flew directly over me, looked down, and gave the call. Although several other vocalizations are made by this species, I heard only the one described above.

March 22 was overcast, with a south wind 15-25 mph and highs in the mid-40's. It was about the fifth day in a row of southerly winds. My wife and I arrived at Rothsay about 3:30 P.M. Short-eared Owls seemed to be everywhere. Just by panning in a circle I could pick up ten to thirteen birds in the air at one time within a radius of one-half to three-quarters of a mile. I believe there was a minimum of 25 to 30 owls in the area, possibly many more. Since several owls are perched on the ground at any given time, there are many undetected birds present. Slow, careful scanning will reveal some of these ground-perched birds if they are slightly elevated on dirt clumps, rocks, posts, etc. Many, however, perch in dead vegetation that perfectly matches and masks them. Careful observation of this species over many hours taught me that they hunt on the wing for awhile, then alight on or near the ground to either hunt from a stationary position or to rest. An accurate count over a large area could only be made my flushing every bird at once, were that possible.

We watched and counted owls for thirty to forty minutes in the area of the main prairie chicken booming ground. There were occasional clashes between individual Short-eareds and with harriers, probably over hunting boundaries. About 4:30 we moved northwest a couple miles. Several owls were in flight on both sides of the road, so we stopped to watch. It was at this time that we were fortunate to witness the "wing-clapping" display that is apparently associated with courtship. One bird circled an area roughly one-quarter section in size, staying over one hundred feet high most of the time. Every two to three minutes it went into a shallow dive, placing the wings below the plane of the body. The primaries were extended rearward so they were below and behind the tail, at which time they were rapidly clapped together for about one second. The owl seemed to be applauding its own performance. The claps were nearly too fast to count, but about five to six per second seemed correct. This sound could be heard for several hundred yards, and could be likened to that made by a person with leather mittens clapping as quickly as possible. Presently another owl approached lower and closer to us, making a smaller circle and clapping more frequently, perhaps twice a minute. The two owls remained several hundred feet apart and frequently "barked" to one another while displaying. After a few minutes the second owl dropped down and began hunting, but the first bird was still performing when we left after about fifteen minutes. Roberts' **Birds of Minnesota** contains an interesting anecdote of this behavior.

The beautiful markings of the Short-eared Owl make it one of the most handsome of

North American owls. Fortunately for the birder, they're active during the daylight. By remaining in your vehicle, they'll sometimes come very close while scouring the ground for rodents.

In addition to the many Short-eareds and the Prairie Falcon, the Rothsay area hosted four Snowy Owls and a dozen or more Rough-legged Hawks in the '86-'87 season.

Steve Millard,
630 W. Laurel, Fergus Falls, MN 56537

A KETTLE OF SWAINSON'S HAWKS — On September 27, 1987, my wife Diane and I were birding six miles west of Rothsay in Wilkin County. The wind was NW ten to fifteen, temperature in the mid 60's, cloud cover over fifty percent. About 4:30 P.M. we spotted approximately fifty buteos in a harvested soybean field and adjacent plowing. Initial conditions prevented us from identifying them. I'd never seen that many Red-tails together on the ground, and began to suspect Swainson's. We drove up the road to get a better look. About the time I stopped the car, the birds began taking off a few at a time. It was then we discovered that most of them were Swainson's Hawks, with just a few Red-tails mixed in. One of the Red-tails was a "textbook" Krider's. By the time the last birds lifted off, the kettle was several hundred feet high. I counted about fifty-five total, with no more than ten Red-tails. They continued to rise and drifted off to the southeast. We remained in the area to observe a few Red-tails and a Swainson's still on the ground. Ten minutes after the flock had departed, we looked up to see them streaming back into the area, moving northwest in a long line. They continued on northwest until they were out of sight. This was only the second time I'd seen a flock of Swainson's Hawks in Minnesota. There were numerous immatures as well as adults. A half hour later we had nice views of two immatures perched in plowed fields. Seeing more Swainson's at one time than would normally be seen all year was great. Side by side comparisons with Red-tails gave us an opportunity to study the two quite different flight silhouettes.

Steve Millard,
630 W. Laurel, Fergus Falls, MN 56537

Birding is the Answer
Part II

Robert B. Janssen

In the last issue of ***The Loon,*** I presented the first "Birding is the Answer" column. The response to my thoughts was much more than I expected. The calls, letters and comments came from many places and many birders. One letter came from as far away as Texas from a former Minnesotan who had moved there and made friends there by going birding.

In future issues of ***The Loon,*** I will share these thoughts and comments from other birders with you. If you would like to share your thoughts on how "Birding is the Answer" for you, I would like to hear from you.

The first I would like to share are the thoughts of one birder who was particularly inspired by the concept that "Birding is the Answer." Anne Marie Plunkett of Rochester, has really gotten into birding Minnesota during the past couple of years. When I discussed this idea with her, it wasn't long before I began receiving articles from her on how birding on a daily basis has affected her life. The column below is one of my favorites.

Birding is the Answer — to Openness

Just now I wrote a thank you letter to some warm and wonderful people — birders — who had opened their hearth and home to me this past weekend while I was in another part of the state trying to see a Great Gray Owl. They opened their hearts as well, and treated me the way you might treat an old friend. *Of course* I saw the owl I was after; they wouldn't have it any other way. To top La Creme with more Creme, they also helped me to find Sharp-tailed Grouse. Two Lifers in one weekend. There isn't a birder alive who wouldn't be happy about that.

It got me thinking about birders in general: I think it's safe to say that I've never met a birder I didn't like. If that is true, I got thinking about why it is true. And I think the key may be "openness."

If you grew up when I did, in the *late* post-Victorian era, "openness" was called "candor" and didn't always have a positive connotation. It could have overtones of bordering on "rude." It meant "telling it like it is" and that was not always an admirable thing to do; it could mean telling the Emperor that he wasn't wearing any clothes.

Birding is all about truth and beauty, isn't it; and we learn very early in the game that there is no beauty without truth. It is no good to describe, either in the mind or in words, the magnificence of a Golden Eagle without the true field marks that make the bird magnificent. It is the "oneness", wholeness, of what we see the eagle to be that we perceive as beautiful. Or put another way, the beauty is already there, waiting for us to perceive it as it is. So a birder grows in truth and beauty as he comes closer to knowing the real thing, as it is; and in accepting it, as it is, finds joy in so doing.

Perhaps birders do that with people, too; maybe they learn to look at the "field marks" of individual and different persons, see their unique beauty, and accept them as they find them; and derive joy from that.

Several months ago a young birder nearly knocked me over by saying to me that there was very little about me he didn't like. I wonder if he knew the impact his comment would have. I can't remember anyone being so direct, candid, open with me — and to say that in public, in front of other people! Had that been said to me when I was growing up, the proper thing for me to do would have been to blush. But I didn't, I just accepted it, and it gave me great joy. And it gives me great joy whenever I think of it. Was there truth to it? Am I really that near to perfection? Most probably not; but then again, maybe I have more beautiful "field marks" than I thought I did. Maybe others see beauty where I have been brought up to down-play it, or ignore it. Perhaps, like the eagle, the beauty is already there, waiting to be perceived. And perhaps, in accepting that, we find the joy in so doing.

Since then I have been much more aware that that kind of openness is not a-typical among birders. They can disagree with you quite frankly, but it isn't rudeness. They can compliment you with a "good spot" and you know it's true, it *was* a good spot; but it's nice to share that bit of truth, and you thank them in your heart. They can question your sighting; ask if you are really sure, or if you considered the possibility that, say, the Turkey Vulture you just identified might be a Golden Eagle, adult!

Maybe this frankness carries over so that when birders come to your house, you don't have to stammer around, apologizing for the dust on the piano. How easy that makes it; I've heard myself saying "Sorry about the dust, but I've been too busy birding!" and I didn't really have to say that much.

I think the world could use more birders.

Anne Marie Plunkett

PURPOSE OF THE MOU

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 promote the preservation of birdlife and its natural habitat.

We carry out these aims through the publishing of a magazine, ***The Loon***; sponsoring and encouraging the preservation of natural areas; conducting field trips; and holding seminars where research reports, unusual observations and conservation discussions are presented. We are supported by dues from individual members and affiliated clubs and by special gifts. The MOU officers wish to point out to those interested in bird conservation 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*** invite you to submit articles, shorter "Notes of Interest" and color and black/white photos. Photos should be preferably 5x7 in size. Manuscripts should be typewritten, double-spaced and on one side of sheet with generous margins. Notes of Interest should be generally less than two typewritten pages double-spaced. If reprints are desired the author should so specify indicating the number required. A price quotation on reprints will be sent upon receipt of information.

Club information and announcements of general interest should be sent to the Newsletter editor. See inside front cover. Bird-sighting reports for "The Season" should be sent promptly at the end of February, May, July and November to Kim Eckert. See inside front cover.

TABLE OF CONTENTS

The LOON

WINTER 1987

VOLUME 59 — NUMBER 4

The LOON Minnesota's magazine of birds, is published four times each year by the **Minnesota Ornithologists' Union,** the statewide bird club. Permanent address: J. F. Bell Museum of Natural History, 10 Church St. S.E., University of Minnesota, Minneapolis, MN 55455-0104. Anyone interested in birds may join. Any organization with similar aims may affiliate. All MOU members receive our two quarterly publications: ***The Loon*** and the **MOU Newsletter.**

MEMBERSHIPS AND SUBSCRIPTIONS: Evelyn Stanley, 213 Janalyn Circle, Minneapolis, Minnesota 55416. To join the MOU and receive both MOU publications, donate $12.50 for a regular yearly subscription. Or other classes of membership that you may choose are: Family $15.00 yearly; Supporting $20.00 yearly; Sustaining $30 yearly; Life $150. Canadian and Foreign Subscriptions, $20.00 yearly. **All memberships are on a calendar year basis.** Also available: back issues of *The Loon* ($3.00 each ppd.) and MOU checklists of Minnesota birds (minimum lots of 20 for $5.00 postage paid). Gifts, bequests, and contributions to the MOU Endowment Fund should also be sent to the treasurer.

EDITOR OF *THE LOON*: Robert B. Janssen, 10521 S. Cedar Lake Rd., #212, Minnetonka, MN 55343 (phone 612-546-4220). The editor invites articles, short notes, and illustrations about Minnesota birds. See back cover for details. **Associate Editors: Kim R. Eckert, 9735 North Shore Dr. Duluth, MN 55804; Anne Marie Plunkett, 2918 S.W. 15th Ave., Rochester, MN 55902; Dr. Harrison Tordoff, Bell Museum of Natural History, University of Minnesota, Minneapolis, MN 55455.**

"The Season" section of *The Loon* publishes reports of bird sightings 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 to "The Season," request the report forms from the **EDITOR OF "THE SEASON," Kim Eckert, 9735 North Shore Drive, Duluth, Minnesota 55804 (phone 218-525-6930).**

EDITOR OF THE MOU NEWSLETTER: Bette Bell, 5868 Pioneer Rd. S., St. Paul Park, MN 55071. Publishes announcements and reports about activities of the MOU and its affiliated clubs. (Club officers should keep both MOU editors informed.)

MOU OFFICERS

PRESIDENT: Bob Holtz, 2997 N. Chatsworth, St. Paul, MN 55113.

FIRST VICE PRESIDENT: Jo Blanich, Box 96, Crosby, MN 56441

SECOND VICE PRESIDENT: Mike Mulligan, 8501 Tiqua Circle, Chanhassen, MN 55317

SECRETARY: Marion Cashdollar, 9400 Cedar Ave. #102, Bloomington, MN 55420.

TREASURER: Ed Kuehnel, 2731 Mackubin St., #39, Roseville, MN 55113

MOU COMMITTEE CHAIRPERSONS

MINNESOTA ORNITHOLOGICAL RECORDS (M.O.R.C.): Robert B. Janssen, 10521 S. Cedar Lake Rd. #212, Minnetonka 55343. RESEARCH AND RECORDS: Janet C. Green, 10550 Old North Shore Rd., Duluth 55804. FIELD TRIPS: Marilyn Lancaster, 1860 S. Mississippi Blvd., St. Paul 55116. MEMBERSHIPS: Evelyn Stanley, 213 Janalyn Circle, Minneapolis 55416. NOMINATIONS: Kathy Heidel, 5085 Meadville St., Excelsior 55331. UNIVERSITY COORDINATION: Dr. Harrison Tordoff, Bell Museum of Natural History, Univ. of Minnesota, Minneapolis 55455. THOMAS ROBERTS AWARD: Doug Campbell, 4917 Russell Ave., Minneapolis 55410. SLIDE FILE LIBRARY: Don Bolduc, 5635 Xerxes Ave. S. #310, Minneapolis 55410. HISTORIAN: Oscar Johnson, 7733 Florida Ave., Brooklyn Park 55455.

AFFILIATED CLUBS OF THE MINNESOTA ORNITHOLOGISTS' UNION

AGASSIZ AUDUBON SOCIETY
President: Steve Nelson, 406 S. Progress
Warren, MN 56762

ALBERT LEA AUDUBON SOCIETY
President: Mary Ann Dixen, 1428 Martin Rd.
Albert Lea, MN 56007

AUDUBON CHAPTER OF FARGO-MOORHEAD
President: Carol Sparbeck, 2834 N. 2nd St.
Fargo, ND 58102

AUDUBON CHAPTER OF MINNEAPOLIS
President: Jo Ellen Warolin, 2138 Centerview Lane
Mound, MN 55364

AUSTIN AUDUBON SOCIETY
President: Dorothy Owens, 2104 W. Oakland Ave.
Austin, MN 55912

BEE-NAY-SHE COUNCIL
President: Steve Blanich, P.O. Box 96
Crosby, MN 56441

CENTRAL MINNESOTA AUDUBON SOCIETY
President: Craig Lee, P.O. Box 753
St. Cloud, MN 56301

COTTONWOOD COUNTY BIRD CLUB
President: Ellis Gerber, 320 N. 12th St.
Mountain Lake, MN 56159

DULUTH AUDUBON SOCIETY
President: Doug Johnson, 427 N. 16th Ave. E.
Duluth, MN 55812

JACKSON COUNTY BIRD CLUB
President: Maureen Hendrickson, Box 394,
Lakefield, MN 56150

HIAWATHA VALLEY BIRD CLUB
President: Dave Palmquist, 84 Fairfax St.,
Winona, MN 55987

LE SUEUR VALLEY BIRD CLUB
President: Doris Winter, Rt. 3, Box 11C,
LeSueur, MN 56058

MANKATO BIRD CLUB
President: Larry Filter, 604 Lakeview
North Mankato, MN 56001

MINNEAPOLIS AUDUBON SOCIETY
President: Donald H. Wheeler, 1425 W. 28th St., #609
Minneapolis, MN 55408

MINNESOTA BIRD CLUB
President: Wally Jiracek, 10112 Dupont Ave. S.,
Bloomington, MN 55431

MINNESOTA RIVER VALLEY AUDUBON CLUB
President: Joe White, 9028 Kell Circle
Bloomington, MN 55431

MISSISSIPPI HEADWATERS AUDUBON SOCIETY
President: Clarence A. Roberts, HCR 70, Box 105
LaPorte, MN 56461

ROSEVILLE BIRD CLUB
President: Margaret E. Kehr, 988 W. Co. Rd. D
St. Paul, MN 55112

ST. PAUL AUDUBON SOCIETY
President: Carole Brysky, 277 E. Morton
St. Paul, MN 55106

WILD RIVERS AUDUBON SOCIETY
Box 266
Chisago City, MN 55013

ZUMBRO VALLEY AUDUBON SOCIETY
President: Jo Theye, Rt. 3,
Rochester MN 55904

Breeding Boreal Owls in Roseau County

James R. Duncan and Patricia A. Lane

On May 13, 1987 we were banding young Northern Hawk-Owls (*Surnia ulula*) at a nest site in the Roseau Bog in northwestern Minnesota (see following article). One of the young owls was a particularly good flier and had flown to several perches before it fluttered to the ground. We hurried to reach it before it regained its strength. After securing the young bird we looked about for its nestmates. We then noticed a stump with an owl looking out of a cavity. At first glance we thought the yellow eyes peering at us were those of another young hawk-owl that had made its way into another cavity. Upon closer inspection, we were suprised to find a nest containing four young Boreal Owls (*Aegolius funereus*) (see front cover).

This is the fourth recorded nesting of Boreal Owls in Minnesota (Matthiae 1982), but there are other references to persons hearing the courtship call of this owl in northern Minnesota during the breeding season. They are heard every spring in Cook County, the same county were Boreal Owls have been found nesting at least twice (Eckert 1979; Matthiae 1982). Another male was heard singing on July 1, 1982 in Itasca County (Janssen 1983), and one was heard along Highway 310 in Roseau County in May, 1983, so perhaps the Boreal Owl is a regular but rare breeder in northern Minnesota.

We heard the male Boreal Owl courtship call within the nest vicinity on March 22 and 23 at 7:00 p.m. It is notable that the hawk-owls were present on their breeding territory at this time, and that a Great Gray Owl (*Strix nebulosa*) and a Great Horned Owl (*Bubo virginianus*) were also calling simultaneously. Another male Boreal Owl was heard calling on March 17 a mile north of the reported nesting. It called from 9:30 p.m. until we left at 11:30 p.m., indicating it was likely an unpaired bird (Bondrup-Nielson 1984). The only other evidence of Boreal Owls in the area was a dead specimen collected on February 16, 1987, five miles east of the nest site. This bird, an adult female, had struck the window of Bronko Hovorka's house on December 15, 1986; it appeared to have been in good physical condition at the time of death.

The closest recorded nesting site for this species was 85 miles northwest at Birds Hill Provincial Park, Manitoba, found by G.J. Smith in 1982 (H. Copland pers. comm. 1987). On June 12, Smith photographed one dead young Boreal Owl below a cavity. An adult had been observed in the cavity on April 17 and June 5 of that year. Previous nest records for Minnesota were all from north of Lake Superior (Janssen pers. comm. 1987).

The young Boreal Owls should have been approximately 30 days old upon fledging (Mikkola 1983); the clutch was therefore probably initiated about March 30. This was about a week after we first heard the male calling. By May 30, when we obtained bands, all but one young had fledged. Katie Haws, Nongame Wildlife Specialist for Minnesota Department of Natural Resources, and her husband Mike helped us look for the other young without success. At no time while we visited the nest cavity did we see or hear the adult Boreal Owls. The cavity was 9.5 feet up in a 15-foot tamarack snag with a six inch d.b.h. The cavity's aspect ratio was 273°. The entrance was six inches high by three inches wide and oval in shape. The cavity extended five inches below the entrance and was almost 11 inches high. Its inside diameter was 6.5 inches. The bottom contained an inch of broken pellets, but no uneaten prey remains.

Bondrup-Nielson (1976) found Boreal Owls nesting in old woodpecker holes in aspen and describes an "old decayed stump" as an unusual nest-site. All four nest-sites reported for Boreal Owls by Bent (1938) were cavities in dead and/or decayed stumps of tamarack, spruce and poplar. Therefore, nest cavities in dead coniferous trees do not appear to be unusual. In Europe, Mikkola (1983) states that although the Boreal Owl "shows a special preference for spruce, it often occurs in mixed forest of pine, birch and poplar."

It was surprising to find Boreal Owls breeding only 110 feet from an active hawk-owl nest (Fig. 1). Mikkola (1983) reports that

Figure 1. Habitat showing Boreal Owl nest cavity (A) and Northern Hawk-Owl nest stump (B). Photo taken May 30, 1987.

breeding hawk-owls are quite tolerant of other birds of prey nesting nearby. There are no documented cases of hawk-owls killing owls or other raptors in the breeding season, but three records of them preying upon Boreal Owls during winter are noted from Finland (Mikkola 1983). Differences in the natural history of the two species may also play a role in their mutual tolerance during the breeding season. The Boreal Owl is reported to hunt from low perches in dense forest stands (Sonerud et al. 1986) while the hawk-owl does so from high exposed perches in or adjacent to relatively open areas (Mikkola 1983). No doubt this interspecific tolerance is due at least in part to a high abundance of voles and shrews as revealed by a small mammal census conducted biennually in the nesting area since May, 1986 (Duncan 1987).

Pellets and bones collected and identified from the Boreal Owl nest cavity included the following: 13 Meadow Voles (*Microtus pennsylvanicus*), nine Northern Bog Lemmings (*Synaptomys borealis*), five Southern Red-backed Voles (*Clethrionomys gapperi*) and one Short-tailed Shrew (*Blarina brevicauda*). Boreal Owls in Minnesota have been reported as having consumed Meadow Voles (Newman 1987), small birds (Eckert 1979, Hanson 1985), Deer Mice (*Peromyscus maniculatus*) and Jumping Mice (*Zapus sp.*), (Eckert 1979), other Boreal Owls, i.e., possible cannibalism (Martinson 1982), Northern Flying Squirrel (Eckert 1979), and especially, Red-backed Voles (Eckert 1979, Matthiae 1982). The Boreal Owl's ability to hunt in dense forest from low perches (Sonerud et al. 1986) may explain the greater variety of prey relative to that of hawk-owls (following article). This may help reduce the competition between the two species and allow mutual tolerance, at least when prey is abundant.

Acknowledgements

We would like to thank Herbert W.R. Copland, Katherine V. Haws, Robert B. Janssen and Robert W. Nero for help in preparing the manuscript.

LITERATURE CITED

Bent, A.C. 1938. Life histories of North American birds of prey. Part 2. Falconiformes and strigiformes. *Bull. U.S. Nat. Mus.* 170: 1-482.

Bonrup-Nielson, S. 1976. First Boreal Owl nest for Ontario, with notes on development of the young. *Can. Field-Nat.* 90: 477-479.

Bonrup-Nielson, S. 1984. Vocalizations of the Boreal Owl, *Aegolius funereus richardsoni,* in North America. *Can. Field-Nat.* 98: 191-197.

Duncan, J.R. 1987. Movement strategies, mortality, and behavior of radio-marked Great Gray Owls in southeastern Manitoba and northern Minnesota. *In* Biology and conservation of northern forest owls: symposium proceedings. Feb. 3-7; Winnipeg, Manitoba. Gen. Tech. Rep. RM-142. Fort Collins, CO: U.S.D.A. For. Serv., Rocky Mountain Forest and Range Experimental Station; 309 p.

Eckert, K. 1979. First Boreal Owl nesting record south of Canada: a diary. **The Loon** 51:20-27.

Green, J.C. and R.B. Janssen. 1975. Minnesota birds: where, when and how many. Univ. of Minnesota Press, Minneapolis, Minnesota. 217 p.

Hanson, M. 1985. Boreal Owl in Mahnomen County. **The Loon** 57:110.

Janssen, R.B. 1983. Boreal Owl in Itasca County. **The Loon** 54:38-39.

Martinson, T. 1982. Possible cannibalism in Boreal Owls. **The Loon** 54:246.

Matthiae, T.M. 1982. A nesting Boreal Owl in Minnesota. **The Loon** 54:212-214.

Mikkola, H. 1983. The owls of Europe. Buteo Books. Vermillion, South Dakota. 397 p.

Newman, J.R. 1987. Boreal Owl at Duluth. **The Loon** 59:52.

Roberts, T.S. 1932. The birds of Minnesota. Vol. 1, Univ. of Minnesota Press, Minneapolis, Minnesota. 718 p.

Sonerud, G.A., R. Solheim, and B.V. Jacobson. 1986. Home-range use and habitat selection during hunting in a male Tengmalm's Owl *Aegolius funereus*. Fauna Norv. Ser. C, Cinclus 9, 100-106.

Manitoba Department of Natural Resources, Wildlife Branch, Box 14, 1495 St. James Street, Winnipeg, Manitoba R3H OW9.

Observations of Northern Hawk-Owls Nesting In Roseau County

Patricia A. Lane and James R. Duncan

Introduction

Northern Hawk-Owls (*Surnia ulula*) have been described as leading a nomadic life, irrupting into areas south of their usual range in response to the availability of food (Mikkola 1983). During fall and winter 1986/87, the Roseau Bog, 9-12 miles north of Roseau, Minnesota and adjacent Manitoba experienced an influx of hawk-owls. We observed these owls while conducting a long term radio-telemetry study of the Great Gray Owl (*Strix nebulosa*) in southeastern Manitoba and adjacent Minnesota. As part of the aforementioned study the area had been sampled for small mammals (Duncan 1987). Coinciding with the influx of hawk-owls was a large increase in small mammal abundance in the area. This, coupled with a mild winter, may have resulted in the abundance of hawk-owls, as none were sighted the *previous* winter.

Figure 1 shows the approximate territories of nine hawk-owls and the dates they were

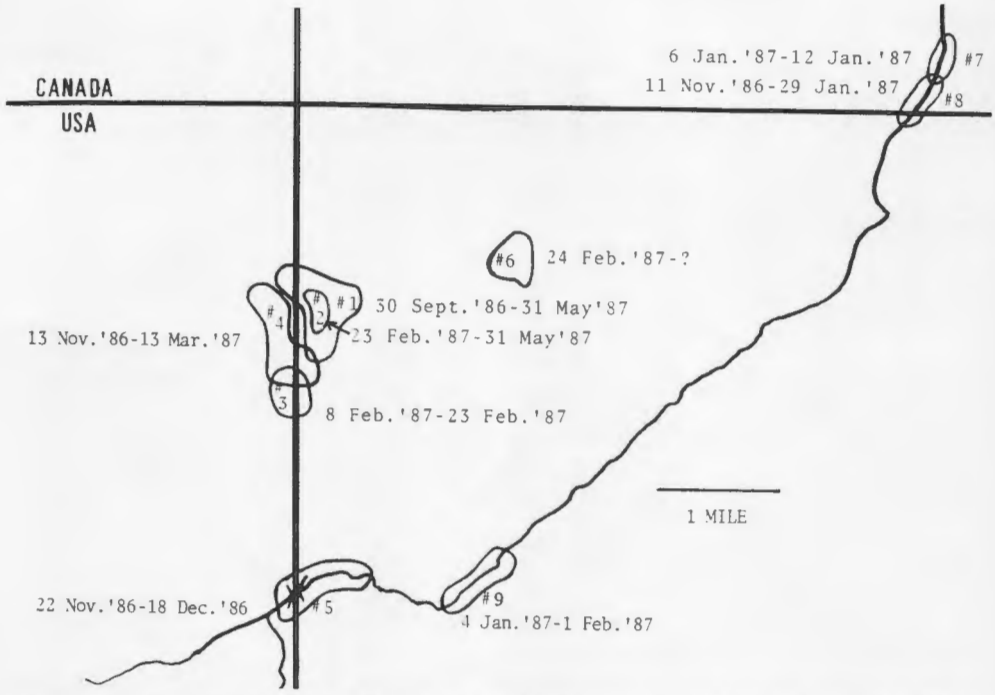


Figure 1. Approximate territories and arrival/departure dates for nine Northern Hawk-Owls in northern Minnesota. Numbers refer to individual hawk-owls mentioned in the text and table 1.

first observed. We were able to catch, band, and weigh seven of these owls (Table 1). A live mouse on a white, felt-lined board was used to lure the hawk owls close enough to capture them in a large fish landing net. These and subsequent events leading to the successful nesting of a pair of hawk owls are described below. The other birds left their territories, i.e., were not seen again (Fig. 1). We will refer to individual birds as HO#1 (hawk-owl number 1) etc., as described in Fig. 1 and Table 1.

One of our study areas (Fig. 1) lies within the Roseau Bog Owl Management Unit which is managed for Great Gray Owls (Haws 1987). The discovery of nesting Northern Hawk-Owls and Boreal Owls (*Aegolius funereus*) (see preceeding article) enhances the value of this area as a boreal forest ecosystem preserve. Other owl species we observed nesting in the area included Long-eared Owls (*Asio otus*), Great Horned Owls (*Bubo virginianus*) and Great Gray Owls. Nothern Saw-whet Owls (*Aegolius acadicus*) and Barred Owls (*Strix varia*) were heard calling in the spring but no nests were found. Haws (1987) describes the area as "encompassing 16 cover types, the dominant ones being tamarack, black spruce, and lowland brush. Ground cover reflects usual northern lowland conifer forests." This area is noted by Heintzelman (1984) as a good location to observe various northern forest owls.

Hawk-owls frequently perched either on mature elms alongside a 35-foot wide river bordered by agricultural fields (i.e., HO#5, 7, 8, and 9), or in dead tamaracks on the edge of mature tamarack stands bordered by lowland brush (i.e., HO#1, 2, 3, 4 and 6). The former is noted as typical winter habitat of this species and the latter as both winter and summer habitat (G.A. Sonerud pers. comm. 1987).

Breeding

Godfrey (1986) shows the breeding range of hawk-owls extending to the southeast corner of Manitoba, Canada and the southwest corner of Ontario. Green and Janssen

Table 1. Capture dates, weights, wing chords and probable sex for Northern Hawk-Owls observed in northern Minnesota.

Hawk-Owl #	Date Banded	Weight (g)	Wing Chord (mm)	Sex
1	24 Nov.'86	300	230	Male
	4 Apr.'87	325*		
2	23 Feb.'87	400	225	Female
3	11 Feb.'87	400	230	Female ?
4	-	-	-	?
5	23 Nov.'86	360	230	?
6	24 Feb.'87	425	222	Female ?
7	6 Jan.'87	375	235	Female ?
8	-	-	-	?
9	4 Jan.'87	375	225	Male
	1 Feb.'87	350*		

? denotes probable sex from average weights and wing chords in Mikkola (1983). Hawk-Owls # 1 and 2 sexed from breeding behavior. Hawk-Owl # 9 was found upon recapture to be injured, apparently shot through its left foot. It is now part of Katherine McKeever's captive owl breeding facility in Vineland, Ontario, where it has bred successfully with unreleasable female Hawk-Owls.
*Two Hawk-Owls were recaptured.

(1975) report "After major invasions a few birds remain during the summer, and breeding has been reported in Norman County (1885), Roseau County (1906 or 1907), and St. Louis County (1963: *The Flicker* 35: 129-134)." Robert B. Janssen (pers. comm. 1987) states there are only three documented Northern Hawk-Owl nesting records for Minnesota: the one listed above in St. Louis County, another in 1980 in Lake of the Woods County (***The Loon*** 54: 182-185) and the third in Aitkin County also in 1980 (***The Loon*** 53: 138). There are two records of breeding hawk-owls only 17 miles north and 20 miles northwest of the Roseau Bog in Manitoba, Canada for 1980 (Gollop 1980).

On February 10, Geir Sonerud, a professor from the University of Oslo, Norway who is currently researching hawk-owls in his country, visited this study area for the second time. He observed HO#1 and 4 and suggested placing nest-boxes within their territories. Two days later we had constructed four nest-boxes measuring 18 inches high, 12 inches wide, and 13 inches deep. The entrance was five inches in diameter, the bottom of which was seven inches from the bottom of the box. The next day, a nest-box was placed in a suitable location in the territories of HO#1 and 4. A second next-box was placed in HO#4's territory on February 15. The fourth nest-box was erected in HO#1's territory on March 23. To our knowledge only one pair of hawk-owls, HO#1 and 2, remained and nested. The hawk-owls used a natural cavity 150 feet away from one of the nest boxes we had placed within their territory. Perhaps HO#1 had already chosen the natural cavity soon after his arrival on September 30, 1986. We thought HO#3 and 4 would breed as well. Although we never observed aggression between any hawk-owls, perhaps HO#1 and 2 expanded

Figure 2. Recently fledged Northern Hawk-Owl poses for a portrait on May 13, 1987.

their territory, pushing out HO#3 and 4.

On February 10, for the first time we heard HO#1 giving the male courtship call, denoted as a trailing whistle, "wita-wita-wita" (Walker 1974), indicating courtship had begun. Three days later, we heard HO#1 sing again, but not until February 23 did we see HO#2 on his territory. It was on this date that we captured and banded HO#2. Within two minutes of her release, she copulated with HO#1. This was the only time we observed the pair copulating. In the following months (March and April) we occasionally heard HO#1 singing, and this was sometimes associated with a food transfer.

On March 15, we observed a food transfer between the pair. The female, HO#2, was perched in a tall tamarack when she began to bob her head up and down. She then flew 50 feet to another tall tamarack where the male, HO#1, had perched with a vole in his bill. Soon after she took the vole the male left. She then ate the vole. On March 16, HO#1 flew to a tree not far from HO#2; he had a vole in his bill. He began immediately to sing and the female bobbed her head up and down as before. The male then flew to the female, gave her the vole, and left. The female flew and cached the vole on another dead tamarack. On March 23, we arrived just in time to see the male give the female a vole. The male then flew off and the female ate the vole.

After March 23, we only saw one hawk-owl in this area. We suspected the female was on eggs, and so avoided disturbing the pair at this time. On April 15, we checked a cavity (Fig. 3) within their territory. The female left the cavity while the climber was half-way up the stump. The cavity contained eight eggs. Clutch size for hawk-owls average five to six, but may be as large as nine or more (Terres 1980). On May 4, we checked the cavity again and all but one egg had hatched; the youngest owlet appeared to be about one day old. Incubation lasts approximately 28 days (Terres 1980); therefore, the clutch was probably initiated approximately March 25, two days after we last saw the female. We estimated the first egg to have hatched about April 22.

On May 26, we approached the nest stump to check the contents, and found a young hawk-owl perched on a limb of the stump. The cavity was empty. A search of the immediate area revealed two young owls in a large live tamarack 150 feet southeast, and two others in a dead tamarack 40 feet east of the nest. The older owlets were able to fly as far as 60 feet. Two days later, we returned to the vicinity of the nest to band the young hawk-owls (Fig. 2). We banded five owlets, three were in separate trees and two were in the same tree; all approximately 200 feet southeast of the nest. All four trees were about 20 feet apart. These young owls were now located on the edge of a mature tamarack stand and were less exposed to the elements and potential predators. Some young were difficult to catch as their flight was level; the older owlets even gained altitude. When in the hand, the owlets would "chitter", causing the already agitated parents to become even more aggressive, stooping at us on several occasions. On May 29, we relocated three owlets farther east. Two days later, we returned and found one young that we had not yet banded. Therefore, at least six hawk-owls fledged.

On July 31, we took various measurements of the nest stump. The cavity was located 18 feet up a 21-foot high dead tamarack snag with a 50 inch d.b.h. (Fig. 3). Aspect of the cavity was 354°. The entrance was oval, measuring ten inches high by 5.5 inches wide. The cavity extended two inches below the entrance, was seven to eight inches in diameter and was 11.5 inches high. The bottom consisted of woodchips, a few feathers, matted pellets, feces and the mummified remains of a young hawk-owl. We assumed this to be the youngest owlet. In large clutches the youngest owl usually does not survive (Walker 1974). This dead chick accounted for seven of eight eggs. On no subsequent visits were adults or young detected in the area.

Reactions of Hawk-Owls to Other Raptors and Humans

On four separate occasions we tested the reaction of hawk-owls to a mounted Great Horned Owl, a live Rough-legged Hawk (*Buteo lagopus*), and humans during the breeding season and/or the pre-breeding season.

On January 31, we placed a mounted Great Horned Owl in view of, and approximately 50 feet away from HO#1. It immediately started to bob its head from side to side and

Figure 3. Female Northern Hawk-Owl re-entering her nest cavity after we had checked the contents, July 31, 1987.

gave the typical alarm call (Walker 1974): "shre-e-e-yip"! It continued calling from its perch for 15 seconds. Then it flew to a height of 40 feet above the mount and stooped three times down to within 20 feet, regaining its original height between stoops. It continued calling during this display and while flying to a distant perch on its territory after the third stoop. Soon after perching, it called less frequently, looking back at the mount only occasionally, until we removed it. Apparently the repeated stoops and calling attracted HO#4's attention, for it appeared, perching on the edge of its territory (Fig. 1), and began giving the alarm call as well.

On February 1, we set the mount on an 8-foot stump in the middle of a small clearing, 200 feet from HO#4, perched about 50 feet high. We hid behind some willows and imitated a Great Horned Owl's call. Immediately, the hawk-owl gave an alarm call. Five minutes later, after preening and giving a comfort shake, it flew at the mount, passing three feet over its head. The alarm call was given during this flight and from its new, closer perch. A minute later it stooped again, this time one foot above the mount and landed nearby. Almost immediately, it stooped, once more passing close to the Great Horned Owl's head, and then returned to its original perch far across the clearing. After each stoop we turned the mount to face the hawk-owl. From the east, we could hear HO#1 also give the alarm call. We left the area, leaving the mount set up, and returned 30 minutes later. Upon our return the hawk-owl left its distant perch and stooped one to two feet above the owl's head to a perch nearby. When we returned the owl to face the hawk-owl, it flew northeast into HO#1's territory. This was the first time

we had seen HO#1 and 4 both in HO#1's territory. At one point they were perched within 50 feet of each other. We set the mount in view of both hawk-owls, but neither stooped at it, although they gave the alarm call as they changed perches. We removed the mounted owl and left the area. When we returned an hour later, both hawk-owls were on their respective territories. On February 13, we presented the mount in clear view to HO#1. The hawk-owl changed perches twice farther to the north, gave an alarm call and then flew to the east. It then changed perches twice, each one farther east, with the final flight ending yet farther away. Immediately after, we presented it again to HO#4. It flew towards the mount, but when it was approximately 40 feet away, it veered off. On April 27, we presented HO#1 with the mount in clear view on its territory. It made four stoops at it, making contact on at least two passes (Fig. 4). Its fifth pass was aborted and it flew towards the nest stump. We then moved the mount to within 50 feet of the nest stump. The male made four passes over the mount and gave an alarm call once. At this time the female (HO#2) was inside the cavity incubating eggs.

Kerlinger and Lehrer (1982) noted that Sharp-shinned Hawks (*Accipiter striatus*), attacking a plastic Great Horned Owl model, avoided a direct head-on approach for 76.3 percent of observed confrontations. The hawk-owls we observed showed no reluctance to attack the mounted Great Horned Owl head-on. We agree with Kerlinger and Lehrer (1982) that the function of attacking is to drive off a larger predator, and that predation upon these species by other raptors is probably more common than reported.

Given that the European counterpart to the Great Horned Owl, the Eagle Owl (*Bubo bubo*), occasionally preys on hawk-owls, it seems likely the horned owl does likewise. At this time, Great Horned Owls were breeding only 300 yards to the south of HO#1 and 2's nesting site. The extreme aggressiveness shown by these hawk-owls towards the mounted Great Horned Owl may be due to more than just competition for a common

Figure 4. Male Northern Hawk-Owl attacking mounted Great Horned Owl, April 27, 1987.

prey base. (Bent 1938).

In an attempt to recapture HO#1, we used a live, tethered Rough-legged Hawk at the nest stump on May 4. The female (HO#2) was "chittering" and "shre-e-e-p-yip-ing" at us aggressively, but did not attack. Five minutes later, the male appeared and perched in a tamarack 30 feet from the nest stump. One person held the hawk while the other attempted to net the hawk-owl on its pass over the hawk. The female never stooped at the hawk. The male was netted on its third stoop over the hawk and was re-weighed (Table 1). The nest was checked before we released the male to avoid both parent owls attacking the climber simultaneously, as they had done before. All eggs but one had hatched. The female still attacked the climber but was too quick to be caught in the hand net.

Aggressiveness in hawk-owls at the nest has been well documented. One adult (usually the male) will guard the vicinity of the nest most aggressively while the other adult (usually the female) incubates the eggs (Bent 1938). Mikkola (1983) adds that despite the small size of the hawk-owl, it can be dangerous at the nest, more so when the young have hatched. When the female is incubating or brooding, she is not as aggressive as the male. This supports our observations, as the female seldom attacked us while incubating or brooding; and when she did, it was only when the male was present. The male (HO#1) even attacked when we climbed to check a nestbox 150 feet away from the nest stump. While one person was climbing a tree or the nest stump, the other had to stay on the ground and keep watch. At the nest, both male and female would attack, seemingly taking turns. To avoid them, we ducked behind the tree trunk.

After the young had fledged, the female gave alarm calls, and occasionally begging calls (Walker 1974) in our presence. The male would arrive soon after, and would have attacked if given the opportunity. When we checked the empty nest stump for late fledging young, the male persisted in attacking the climber even though the young were some distance away.

In contrast, during the winter the hawk-owls, as described by Bent (1938), were not aggressive. On one occasion we were able to approach within 15 feet of HO#5, and even then it was content to sit and continue hunting as we took photographs (Fig. 5).

Hunting Behavior

Hawk-owls are diurnal hunters, and have often been referred to as "day-owls" because of this behavior (Bent 1938). According to Mikkola (1983), the hunting technique of the hawk-owl resembles that of shrikes, using a high vantage point and swooping down on prey fast and low. They are also known to hover (Mikkola 1983), and we have observed them doing so on several occasions. On one occasion we observed HO#1 plunge straight down into the snow off a tall snag. For a few moments we were unable to see its head, feet, or the top of its wings. Soon after, it came up with a vole and flew into the woods. It had penetrated eight inches into snow 30 inches deep. A similar description of a snow-plunging hawk-owl by Jones (1987) is the only reference to this behavior that we are aware of. However, R. Nero and H. Copland (pers. comm. 1987) noted plunge-holes beneath a perched hawk-owl. We usually observed them capturing voles off the surface of the snow. On two occasions, hawk-owls unsuccessfully attempted to capture a Gray Jay (*Perisoreus canadensis*). This may also be interpreted as aggressive behavior towards Gray Jays inasmuch as they are known to raid hawk-owl caches (G.A. Sonerud pers. comm. 1987).

Caching Behavior

Many owl species have been observed to cache or hide food, both in the wild and in captivity. It appears to be an adaptive strategy enabling an individual to make use of seasonal and/or daily abundance of prey (Collins 1976, Ritchie 1980). We observed hawk-owls caching prey items on several occasions, before and during nesting.

On November 27, 1986, HO#8 caught a vole off the surface of the snow and flew to the wood's edge. While hovering, it unsuccessfully tried to put the vole in the hollow, broken tip of a low, dead elm branch. After a minute, it flew to another broken limb and cached the vole there.

On January 24, HO#6 was perched atop an eight-foot snag in a snow-covered cutover area. We placed our live bait mouse out and prepared to capture the hawk-owl. It flew across the cut, away from us, and caught a wild vole over 200 feet away. It immediately returned to a 15-foot high snag equidistant to

Figure 5. Female Northern Hawk-Owl on her winter territory, December 15, 1986.

us and to its first perch. With the recently caught vole in its foot, it saw our bait mouse. It hurriedly cached the vole in a small notch five inches below its snag-top perch, and then came in for our bait mouse and was caught. Upon release, it returned to the snag by the cached vole.

On March 16, HO#2 cached a prey item after HO#1 had given it to her. On April 15, HO#1 cached a recently caught vole on top of a snag 30 feet from the nest stump. At this time, the female was in the stump incubating eggs.

Pellet Analysis

The contents of 13 hawk-owl pellets collected during the winter (December to February) were identified. The 32 prey items included 29 Meadow Voles (*Microtus pennsylvanicus*), one Southern Red-backed Vole (*Clethrionomys gapperi*), and two unknown small rodents (broken skulls). Pellets and bones collected during July, in and around the nest cavity, contained 44 Meadow Voles, four Red-backed Voles and eight Northern Bog Lemmings, (*Synaptomys borealis*). This data is consistent with other reports of Northern Hawk-Owl diets in Minnesota (Johnson 1980, Savaloja 1980), and for the species in general (Bent 1938, Mikkola 1983), in that Meadow Voles form the bulk of their diet.

Acknowledgments

We wish to thank Katherine V. Haws for encouraging us to prepare this article. Dr. Robert W. Nero kindly read early drafts. Herbert W. R. Copland, Robert B. Janssen, and Dr. Nero provided nest record information. Geir Sonerud visited our study area and recommended locations for nest-boxes. Barbara Archer and Kathryn Johnston helped locate and band young Hawk-Owls. We thank the Vistas family for permitting us access to some areas via their property. Thanks are due to Gerry Vogt and family for putting up with our camper, dogs and obsession with owls in their backyard.

LITERATURE CITED

Bent, A.C. 1938. Life histories of North American birds of prey. Part 2. *Bull. U.S. Nat. Mus.* 170: 1-482.

Collins, C.T. 1976. Food-caching behavior in owls. Raptor Research. 10(3): 74-76.

Duncan, J.R. 1987. Movement strategies, mortality, and behavior of radio-marked Great Gray Owls in southeastern Manitoba and northern Minnesota. *In* Biology and conservation of northern forest owls: symposium proceedings. Feb. 3-7; Winnipeg, Manitoba. Gen. Tech. Rep. RM-142. Fort Collins, CO: U.S.D.A. For. Serv., Rocky Mountain Forest and Range Experimental Station; 309 p.

Godfrey, W.E. 1986. Birds of Canada. Revised Ed. Natl. Museum Natural Science, Natl. Museums of Canada, Ottawa. 595 p.

Gollop, J.B. 1980. Prairie Provinces Region. *American Birds*. 34(6):905.

Green, J.C. and R.B. Janssen, 1975. Minnesota birds: where, when and how many. Univ. of Minnesota Press. Minneapolis, Minnesota. 217 p.

Haws, K.V. 1987. Management recommendations for the Roseau Bog owl management unit. Minnesota Dept. of Nat. Res. Report. Mimeo. 19 pp.

Heintzelman, D.S. 1984. Guide to owl watching in North America. Winchester Press, New Jersey. 144 pp.

Johnson, M. 1981. Summer hawk-owl record. ***The Loon*** 53: 53-54.

Jones, E.T. 1987. Observations of the Northern Hawk-Owl in Alberta. *In* Biology and conservation of northern forest owls: symposium proceedings. Feb. 3-7; Winnipeg, Manitoba. Gen. Tech. Rep. RM-142. Fort Collins, CO: U.S.D.A. For. Serv., Rocky Mountain Forest and Range Experimental Station; 309 pp.

Kerlinger, P. and P.H. Lehrer. 1982. Anti-predator responses of Sharp-shinned Hawks. *Raptor Research* 16: 33-36.

Mikkola, H. 1983. The owls of Europe. Buteo Books Inc., Vermillion, South Dakota. 397pp.

Ritchie, R.J. 1980. Food caching behavior of nesting wild Hawk-Owls. *Raptor Research*. 14: 59-60.

Savaloja, T. 1973. Hawk-Owl observation in Aitkin County. ***The Loon*** 45:19.

Terres, J.K. 1980. The Audobon Society encyclopedia of North American birds. Alfred A. Knopf, Inc. N.Y., 1280pp.

Walker, L.W. 194. The book of owls. Alfred A. Knopf, Inc., N.Y., 255 p.

Manitoba Department of Natural Resources, Wildlife Branch, Box 14, 1495 St. James Street, Winnipeg, Manitoba R3H OW9.

A Birder's Guide To Binoculars and Telescopes

Kim R. Eckert

Without question, no other item is more essential to birding than binoculars. Sure, many birders have a field guide or spotting scope along, but it is possible to survive a birding trip without these. The same cannot be said about binoculars — it is virtually impossible for the birder to bird without them. It is curious, therefore, that such a necessity is so poorly understood by so many birders. I meet too many birders struggling with inadequate optics, too many who are unsure how they work. If you buy the wrong field guide, you may be out a few dollars and miss out on pinning the correct label on what you see; buy the wrong binoculars, however, and you may be out $50 or $100 or even more, and unable to see anything, let alone identify it.

The following, therefore, is an effort to clear up some of the mystery involved with binoculars and, to a lesser degree, spotting scopes. It is important to note here initially that this article is intended only for active birders. If you are an occasional back yard birder, there is no need to invest $200 or more in the equipment recommended below —

you'll do just fine with a $30 or $40 pair of K-Mart or Target 7X35s. If you're a boater looking for something waterproof and focused only at infinity, or if you're only interested in something small and lightweight to fit in a backpack or take to the ballet, your time will be better spent reading the Seasonal Report or Notes of Interest elsewhere in this issue.

Power or Magnification. Somewhere on every binocular you'll find two numbers with an "X" in between: e.g., 8X40. The first number is the power — i.e., 8X40 means eight power binoculars. In general, eight, nine or ten power is recommended: six or seven power is often too weak to identify distant birds. On the other hand, high powered binoculars like 15 or 20X are not recommended — generally, the higher the power, the less you get in resolution or sharpness, the narrower the field of view, the darker the image, the greater the weight, the harder it becomes to hold them steady (because vibration, as well as the image, is magnified), and the more difficult it becomes to focus in on something less than 20 or 30 feet away. If you want 20 power or more, that's what spotting scopes are for. Finally, do **not** buy zoom binoculars under any circumstances: the quality of their optics is inferior to fixed-power binoculars, and the mechanism that changes the power eventually works loose or jams up.

Diameter of Objective Lenses. These are the larger lenses farthest from your eyes. The number following the "X" indicates the diameter of the objective lenses in millimeters: e.g., 8X40 means a 40mm diameter. The greater this number, the more light entering the binocular, and, other things being equal, the greater the brightness of the image. Therefore a 7X50 binocular would be brighter than a 7X35 binocular of equal quality; a 50mm lens, however, adds significantly to the weight; and 7X50 or 10X50 binoculars are too heavy for most birders. Many mistakenly think that the diameter of the objective lenses is also an indicator of the field of view; however, the two are unrelated.

Brightness. The coating on a binocular's lenses and the quality of lenses and prisms are important in a binocular's brightness, but the brightness of binoculars of equal quality is determined by the diameter of the exit pupil. This diameter is determined by dividing the diameter of the objective lenses by the power: e.g., an 8X40 binocular has an exit pupil of 5mm, and would have better brightness than an 8X32 binocular (4mm exit pupil) of equal quality. If you hold your binoculars away from your eyes and look through them, the small circle of light you see is the exit pupil. Anything less than a 3.5mm exit pupil generally is not recommended.

Field of View. Just as important as how bright the image you see through a pair of binoculars is how large an area you can see. Most binoculars show this variable in terms of so many feet at 1000 yards (or meters at 1000 meters), or by a number of degrees printed on the body. A standard binocular has a field of about 375 feet at 1000 yards (105 meters at 1000 meters) or about 6.5°. A binocular with a field anything less than 300 feet or 6.0° is not recommended — too often there would be difficulties in trying to find something. So-called wide-angle binoculars, those with fields of 500 feet or more at 1000 yards are **not** recommended, however; only less expensive, lower quality binoculars offer this feature, and invariably the edges of their fields are blurred or in shadow and thus have no advantage.

Eye Relief. If you wear glasses and like to keep them on while looking through binoculars, there is no more important variable to consider than eye relief. This term refers to how far "above" the binocular the exit pupil is projected. On most binoculars, to see the full field of view, you must have your eye very close to the oculars (eyepieces); an impossibility if the lenses of your glasses are in the way. The eye relief on some binoculars is poor enough that eyeglass wearers end up with a severely limited field of view; on the other hand, another binocular with the same field of view number may offer good eye relief and thus a better view for those wearing glasses. Unfortunately, there is no consistent formula or number to measure a binocular's eye relief — you have to actually look through them. Therefore, if you wear glasses while using binoculars, do **not** rely on the field of view number alone; look through the binoculars and check the eye relief before buying them. Eyeglass wearers should also remember to fold down a binocular's rubber eyecups to achieve maximum eye relief; on older binoculars with hard plastic eyecups, these usually can similarly be un-

screwed and removed.

Focusing. Most binoculars are center-focus: i.e., both eyepieces and "barrels" are focused together with a centered focusing wheel. Do **not** buy individual-focus binoculars: on these the eyepieces are focused separately, making it impossible to easily focus back and forth between distant and nearby birds. Also, despite their popularity, Bushnell "Insta-focus" and other similar binoculars are **not** recommended: only less expensive, lower quality binoculars offer this feature which makes it difficult to get things into precise focus; the mechanism usually wears down and becomes too loose after awhile. Make sure a binocular can focus down to at least 15-18 feet, otherwise you'll sometimes find yourself unable to focus in on something in nearby undergrowth. On most binoculars used by birders this is not a problem, but on 10X Zeiss binoculars and 8 or 10X Leitz the minimum focusing range may be up to 30 feet. However, the Zeiss binoculars are normally sold with the focus factory-adjusted down to about 20 feet; Leitz binoculars can be adjusted by the factory when they are ordered, but the charge is $50 or more. Finally, all binoculars have an adjustment, typically on the right eyepiece, to allow for differences in a person's eyes; don't overlook this — I've met several birders who never set this adjustment and were never able to see clearly through their binoculars until it was set properly. Once set for your eyes, don't change it — I tape this adjustment down so it cannot rotate out of focus with use.

Optical Quality. Some binoculars are better than others when it comes to their lens coating (to reduce internal reflection and increase brightness), to the quality of the glass in the lenses and prisms, and to their alignment at the factory and their ability to stay in alignment. Since the adage "You get what you pay for" applies well enough to binoculars, as a general rule a binocular is a quality pair if its suggested retail price is at least $300 or so (or at least $150, discounted). Another good indicator is the presence or absence of gray shadows at the edges of the exit pupils; these straight, well-defined shadows are visible on less expensive, lower quality binoculars, but not on the better ones.

Alignment. If the images of both halves of a binocular don't precisely match to form one final image, it is out of alignment. If far enough out of alignment, a double image is apparent; but usually misalignment is less noticeable and is indicated by eye strain or a headache after prolonged use. Once out of alignment, (e.g., after being dropped) a binocular can cost a lot to repair (more than a cheap pair is worth); however, the warranty on Nikons, Leitz and Zeiss binoculars may cover this repair, although it may take several weeks to complete.

Binocular Styles. Roof prism binoculars have straight barrels with the objective lenses lined up with the eyepieces; these tend to be more resistant to dust and moisture, and many birders find them easier to hold. Porro prism binoculars have offset barrels with the objective lenses spaced wider than the eyepieces. Although the highly regarded Leitz and Zeiss binoculars are roof prisms, some of the best binoculars are porro prisms. Compact binoculars are **not** recommended: they tend to have inadequate fields of view and brightness. (About the only compact binocular that I would consider adequate for the money is the Bushnell Custom 7X26; its suggested retail price is $270, but it can be bought for $150.) Binoculars with rubber armor weigh more than those without this added protection against shock and moisture, and they usually cost more. Since I have never used armored binoculars, I am uncertain if the protection they offer is significant enough to justify the added weight and cost.

Straps. Avoid binocular straps made of plastic or leather which will eventually break, often without warning. More durable is the braided nylon type. Adjust the strap to be as short as possible or as is comfortable; the shorter the strap, the more quickly you can get the binoculars to your eyes, and the less they will sway or bounce around as you move.

Dealers. 1) 47th Street Photo (36 E. 19th St., New York, NY 10003; 1-800-221-7774) has a large inventory, regularly publishes catalogues, and normally charges less than any other mail-order discounter. However, some of their merchandise is "gray market" (i.e., the items are identical to those sold by regular retailers, but the warranties are more limited), their toll-free number is frequently busy and can only be used for ordering, not for questions. You can, and should, ask if an item is in stock before ordering it; otherwise, you may end up waiting several weeks for a backordered item that is immediately charged

on your credit card. 2) Birding (P.O. Box 5, Amsterdam, NY 12010; 1-518-842-0863) may not have a toll-free number and some of their prices may be higher (no gray market items), but the service is more courteous, prompt and reliable than at 47th; their free price list includes more binoculars than 47th. 3) National Camera Exchange (9300 Olson Hwy., Golden Valley 55427; 1-800-624-8107 or 612-546-6831) has a large selection of binoculars and scopes, and the salesman at the store was unexpectedly knowledgeable — normally camera store clerks know next to nothing about binoculars. Their prices tend to be higher than Birding, but it is the only Minnesota store I know of with an extensive selection that you can look over before deciding what to purchase.

Recommendations. Some of the binoculars listed below are better than the others, but all are of good enough quality to be recommended. There may be other high quality binoculars available, but they are either seldom used by birders and unfamiliar to me; or they are too costly relative to other similar high quality binoculars — e.g., the Bausch & Lomb 7X35 Classic (suggested retail price $820, about $450 discounted) and 8X42 Elite (suggested retail $1573, about $900 discounted). The prices after the brands below are listed in the following order: suggested retail (as of Nov. 1987); 47th Street Photo (as of Aug. 1987); Birding (as of Nov. 1987); and National Camera Exchange (as of Fall 1987). A dash (—) indicates the brand is not listed in that dealer's literature, and a question mark means the price is unknown.

— Zeiss 8X30 Dialyt ($775, 550, 559, —). These roof prisms are available with or without rubber armor with no difference in price. The best choice for those who prefer 8X and can afford them.

— Zeiss 10X40 Dialyt ($955, 690, 689, —). These roof prisms also cost the same with or without armor; they come factory-adjusted for close focusing, and this is included in the price. Most agree these are the best 10X binoculars available for birding.

— Leitz 8X32 Trinovid ($930, 560, 620, 600). If rubber armor is desired, add $20-30 to the price; the close focusing adjustment costs an extra $50-65. These roof prisms cost more than the Zeiss 8X, but their quality is no better, and many think it is even a bit below Zeiss'.

— Leitz 8X40 Trinovid ($1110, 670, 740, 750). The price of these roof prisms includes armor, but National Camera may have some without armor for only $550, an obvious bargain; again, however, it is necessary to pay the extra close focusing charge.

— Leitz 10X40 Trinovid ($1065, 640, 710, 650). Roof prisms and without armor, which would cost $50 more. Close focusing is again essential; National Camera charges only $40 more for this on the armored 10X40s. Like the 8X40 Trinovids, an excellent binocular, but perhaps not quite as good as the Zeiss. All the Zeiss and Leitz listed have superior eye relief, with virtually no loss of field of view for eyeglass wearers.

— Nikon 9X30 Criterion ($444, —, 254, 270). The best roof prism binocular made in its price range; probably not recommended for eyeglass wearers, however, since their eye relief is not the best.

— Nikon 10X35 E Series ($419, —, 210, 170). Why these excellent porro prism binoculars were discontinued is a mystery — they are (were) the best choice short of the Zeiss and Leitz level, with better eye relief than the Nikon 9X30. However, once National Camera and Birding are out of them (which may already be the case by the time you read this), they will be history.

— Minolta 8X32 Mariner ($?, 160, —, 220). About equal in quality to the Nikon 9X30s, these roof prisms are a good value.

— Minolta 10X40 Mariner ($?, 170, —, 240). These roof prisms are also a high quality binocular, although their field of view is marginal, and their eye relief is inadequate for eyeglass wearers.

— Bausch and Lomb 9X35 Discoverer ($472, 260, 266, 280). I have not yet seen these porro prism binoculars, but their quality is at least as good as the Minoltas, and probably better.

— Bushnell 8X36 Custom ($292, 160, 164, 180). These porro prisms are not quite up to the quality of the Discoverers, but their eye relief seems to be better and they cost quite a bit less.

— Bushnell 10X40 Custom ($304, 167, 171, ?). The 10X version of the Customs; the higher power advantage may be offset by a marginal field of view, although their eye relief seems to be adequate.

— Swift 8.5X44 Audubon ($285, —, 143, 175). The numbers on these porro prisms may

be unusual, but their quality is comparable to the Bushnell Customs, and their eye relief is comparable to Zeiss and Leitz.

One final note: Nikon, Minolta, Bushnell and Swift also sell lower priced, lower quality binoculars; only the models specifically mentioned above are recommended for serious birders.

II. Telescopes and Tripods

Fortunately, the variables relative to spotting scopes are not as complex as those involved with binoculars. Most scopes are either too cheap and obviously unsuitable for birding or designed solely for astronomical use, so that relatively few brands and models are left to analyze. Generally, the facts and figures discussed earlier for binoculars also apply to spotting scopes. As for power, most scopes can handle 20 to 30X; the higher powers of 40, 60 and 80X can only be handled by higher quality scopes since, as with binoculars, optical resolution, field of view and brightness decrease as the power increases. And, as with binoculars, scopes with fixed power eyepieces are preferable to zoom scopes. Brightness and field of view are also important variables in scopes, as is eye relief for eyeglass wearers. As for spotting scope styles, there are two: catadioptric or reflecting scopes have a large objective lens, use mirrors to focus the image and resemble short, fat cylinders (e.g., Questar, Bausch & Lomb Criterion, Celestron C90 and Meade 97D); refracting or prismatic scopes typically have a 60mm objective lens and use a combination of lenses and prisms in the same way as binoculars (e.g., Nikon 7705 and 7709ED, Bushnell Spacemaster, Bausch & Lomb Discoverer and Swift Telemaster). Catadioptric scopes generally cost more and can handle higher powers than refracting scopes.

Without doubt, the Questar is in a class by itself, as its $2000+ price would suggest. Besides the price (no discount dealers here), the only disadvantage is the reversed image which takes some getting used to. At the other end of the spectrum, there are many inadequate scopes on the market, but two of these deserve particular mention because too many birders have been misled into buying them: the Bausch & Lomb Discoverer 15-60X Zoom and the Swift Telemaster 15-60X Zoom. The suggested retail price of both is about $450, but they can be bought for $200-300 discounted; however, much better scopes can be bought for the same price or less. Also, as zoom scopes, their optics are not good enough for one to see clearly enough when the power is set at 30X or more unless conditions are ideal.

There are six spotting scopes worthy of mention; none are up to Questar's standards, but all are adequate for birding purposes and all are reasonably priced. Prices are listed in the same way as was done with binoculars:

— Bausch & Lomb Criterion 4000 ($700, —, 258, 399). I owned this 40X scope for a couple years but was never impressed with it; others, however, have a higher opinion of it. The price at Birding is a good bargain, although it will not be restocked when sold out.

— Celestron C90 ($?, 300, —, 399). Similar in price and quality to the Criterion, this scope comes with both 33X and 55X eyepieces. I twice looked through one set at 55X, and both times its resolution was not as good as the Nikon ED set at 40X.

— Meade 97D ($?, 370, —, 329). I have not yet looked through this scope, but it comes with both 40X and 83X eyepieces; I would be surprised if one could see much through the latter eyepiece.

— Nikon 7709ED ($939, 470, 537, 569). In my opinion, this is the highest quality scope next to the Questar. It comes with a 20X eyepiece, but it is recommended you also buy the 30X or 40X eyepiece ($69, —, 45, 49); 15X and 60X eyepieces are also available, but the former has no advantage over the 20X, and the scope's optics are only able to handle 60X under ideal conditions. Eyeglass wearers should choose the 30X eyepiece since eye relief on the 40X is inadequate. This scope's quality is especially evident in its light-gathering ability, even at 40X.

— Nikon 7705 ($515, 260, 295, 319). This 20X scope looks the same and uses the same eyepieces as the Nikon ED, but its optical quality is not quite up to the ED standard. However, the difference between the two is noticeable only under extreme, marginal conditions, and I'm not convinced the ED is worth $200+ more. (Interestingly enough, dealers have been narrowing the price difference between the two recently). This scope is at least as good as the first three listed above, and clearly better than the Bushnell Spacemaster.

— Bushnell Spacemaster II ($230, —, 129,

?). This scope comes without eyepieces, which must be ordered separately; recommended is the 22X ($66, —, 37, ?) — also available are 15X, 20X, 25X and 60X (this last eyepiece would be totally useless for birding); and, for those who insist on a zoom scope, there is a 15-45X eyepiece ($140, —, 79, ?) which, if nothing else, is superior to the Discoverer or Telemaster mentioned earlier. This familiar scope has been redesigned, but I don't know if the optics are any better or worse than the old Spacemaster which was the only adequate scope for those on a budget. Its brightness and field of view were (are?) not as good as the Nikon 7705, which is worth the extra $100+.

A spotting scope is worthless without a tripod, but unfortunately there's nothing I can recommend. Remember that almost all tripods are designed for cameras or stationary astronomical telescopes and thus are not portable enough for birding. There was one tripod, the Flip Lock FL, which was the clear and only choice, but I've recently learned it has been discontinued. It was reasonably priced at $50-60, its legs are locked and released by one lever at the top of each leg (most tripods have two lever or twist releases per leg which are harder to use), its center post simply slides up and down (most require cranking), and only one twist of the handle allows aiming the scope in all directions (others require one release for horizontal and another for vertical movement). If anyone out there finds any unsold Flip Locks somewhere, or discovers a tripod with similar features, please let me know.

A car window mount is useful for scoping things out from the comfort of your car since it clamps on to the car's window; Bushnell's is the most popular one ($55, —, 34, 39). The only problem is that it's awkward and time-consuming to transfer your scope back and forth between tripod and window mount, but Steve Blanich (P.O. Box 96, Crosby 56441) has invented a simple device to eliminate this problem — contact Steve for more information.

For more information on binoculars, I can recommend Peter Dunne's article in the April-June 1985 issue of *Birding*, "Binoculars for Birding"; and for additional information on scopes see former Minnesotan Chuck Bergman's article "Audubon's Guide to Spotting Scopes" in the July 1986 issue of *Audubon*.

9735 North Shore Dr., Duluth, MN 55804

BIRDS IN MINNESOTA - a Commentary

Fred Lesher

Robert B. Janssen. University of Minnesota Press. 1987. 352 pages. 6″ x 9″. $14.95 Paperback, $35.00 Hardcover.

Why another book about birds in Minnesota? Since Roberts' *Birds of Minnesota* (1932), 80 species have been added to the Minnesota list; and even since *Minnesota Birds* by Green and Janssen (1975), 26 species have been added. That's the first reason why. Between one and two species per year have been added to the Minnesota list for 55 years. Of midwestern states, Minnesota has a tradition of publication in ornithology. A second reason why. Of midwestern states, Minnesota has a strong corps of active birders. A third reason why. Of midwestern states, Minnesota offers a variety of habitats and straddles east-west and north-south transition zones. A fourth and probably not final reason why. Enough!

Of greatest interest to birders will be the 313 pages of species accounts. How do these compare with the 1975 accounts in *Minnesota Birds?* It seems reasonable to compare principal entries for seven species of interest:

Snowy Egret, Canvasback, Thayer's Gull, Boreal Owl, Cliff Swallow, Bohemian Waxwing, and Henslow's Sparrow.

Snowy Egret: Minnesota status has changed from casual in 1975 to regular in 1987 (cut-off for all data included in this book is December 31, 1986). To 1975 there were ten records. In 1977 and 1978, nests were found at Big Stone Refuge in Lac Qui Parle County, and by the late 1970's, the species was considered regular. An entire column of summer records indicates many non-breeding or post-breeding wanderers in the late seventies, but now the status may be reverting to casual in the eighties.

Canvasback: Regular status in both 1975 and 1987. However, data seem to indicate an increase in numbers in the Mississippi River Valley. On November 1, 1983, 100,000 birds were recorded at Reno in Houston County (Pool 8). These numbers may be misleading, as Canvasbacks are attracted in large numbers to diminishing habitat. Also there should be a warning: most of the Mississippi River at Reno is not in Minnesota, so most of the ducks are Wisconsin birds. (Eat your heart out, Minnesota birders!)

Thayer's Gull: Casual in 1975, regular in 1987. The entry in *Minnesota Birds* is devoted to early documentation of the species at Duluth between 1970 and 1972. The full column entry in *Birds in Minnesota* documents the spread of the species to locations in Dakota, Anoka, Hennepin, Ramsey, Renville, Wabasha, Freeborn, Blue Earth, Traverse and Jackson counties. Fall migration period is documented by 5 dates, but the spring migration period is poorly known.

Boreal Owl: Regular in both books. Considered a very rare migrant in both books. *Birds in Minnesota* offers two pages of dates of winter invasions in 1977-1978 and 1981-1982, plus banding data from Hawk Ridge in Duluth. While there were no breeding records available by 1975, *Birds in Minnesota* offers three positive (is there any other kind?) breeding records from Cook County. Dates and general locations are cited. A good time and place to listen for them is from mid April to early May along the Gunflint Trail.

Cliff Swallow: Regular in both books. *Birds in Minnesota* correlates corrugated culverts with tremendous population increases in the western part of the state. While the text refers to large nesting colonies in northern regions, no mention is made of colonies nesting on limestone bluffs along the Root River in Fillmore and Houston Counties.

Bohemian Waxwing: Regular in both books. Erratic in both. More common in the north, particularly in Duluth in flocks up to 1000. Associated with Mountain Ash and ornamental crab apple trees. No breeding records. "Often encountered in southern regions in small numbers in association with Cedar Waxwings." "Often" may mislead birders to expect mixed flocks when, in fact, most of the time Bohemians are absent.

Henslow's Sparrow: Reported as nesting in four counties in *Minnesota Birds,* but only the nest actually found is cited in *Birds in Minnesota,* from Hennepin County. *Birds in Minnesota* does refer to the widely known location for summer resident birds in O.L. Kipp State Park, Winona County. There is no question that Henslow's breed there, as a "local" young bird was banded in 1987, but not reported when the book went to press.

Minnesota birders and students of birding history will find the dedication to Brother Theodore Voelker and Raymond Glassell, the

foreward by Harrison B. Tordoff, and preface by Janssen to be a synopsis of Minnesota birding history. Voelker and Glassel taught him, says Janssen, that "Birding is the Answer." For the questions, the reader should consult recent issues of ***The Loon***. Janssen, as editor of ***The Loon*** and now as author, is not afraid to be human. He combines objectivity with subjectivity, impersonality with personality. I believe this is good. Birders can be close to their objects both scientifically and personally.

One of my favorite sections of this book is Kim Eckert's paean to Minnesota birds and the state, "Minnesota: Unique Geography, Diverse Habitats, Rich Avifauna." He begins: "Somewhere in a remote black spruce bog in Cook County, a June morning dawns cold." He briefly describes the avian life here: Spruce Grouse, Boreal Owl, both *tridactylus* and *arcticus* woodpeckers, Solitary Sandpipers, Wilson's Warblers and Rusty Blackbirds. Next paragraph: "On the same day in Rock County, the afternoon temperature approaches 100 degrees." Here, there are Northern Bobwhites, Burrowing Owl, "an abandoned barn once occupied by a Common Barn Owl," a Blue Grosbeak singing from a Sioux Quartzite escarpment, Dickcissels, Lark Buntings and more. Having illustrated the variety of habitats within Minnesota and their avifauna, he points out that "the far corner of Rock County lies closer to the Oklahoma-Kansas border and to Cheyenne, Wyoming than it does to Grand Portage in the eastern tip of Cook County." Now that sent me searching for my atlas! Sure enough he's right — barely — but the point is dramatized. Minnesota provides a rich array and variety of habitat for birds — and birders. Fans of Garrison Keillor may find in Eckert's enthusiasm about Minnesota and expansive style an almost Keilloresque tone.

Eckert's section on "Specialties" includes the obvious choice locations and species such as Duluth's Hawk Ridge for all raptors. But there's more at Duluth, like 4,500 robins during a single morning, 2,000 chickadees (Black-capped?) on one date, and 16,500 nighthawks in one day. Elsewhere, one can be impressed by 50,000 coots covering some lakes in fall, or by a documented flight of "perhaps" 200,000 longspurs one April day.

Of rarities most commonly sought by members of the American Birding Association, 11 of the top 25 species are on the Minnesota regular list. These are as follows: Great Gray Owl, Gyrfalcon, Boreal Owl, Yellow Rail, Snowy Owl, Northern Hawk-Owl, Northern Saw-whet Owl, Spruce Grouse, Three-toed Woodpecker, Black-backed Woodpecker, and Connecticut Warbler.

Birders will find, under the "Sites" cited by Eckert, some lesser known locations including the "so-called Big Bog Country north of Red Lakes interrupted only by Highway 72." Where can one go to experience the many locations mentioned? "...find a map of your favorite county, and set out on your own." "Much of Minnesota remains to be discovered." Minnesota ornithology may benefit from your experience.

The section, "Notes on Nomenclature, Terminology, and Maps" includes changes from the 1975 book. "Regular" status has been redefined from "occurs somewhere in the state every year" to "occurs in at least nine (in some cases eight) of the past ten years... somewhere in the state." "Accidental" is defined as "species for which there are acceptable records in two (and in some cases three) or fewer of the past ten years." There are three categories of accidentals: A_a, specimen, photograph, or tape; A_b, written documentation unanimously accepted by MORC (Minnesota Ornithological Records Committee); A_c, species of questionable origin or wildness, but neither escaped nor released. The category "Hypothetical" has been deleted, and those species assigned to a category by MORC.

Some readers will miss the appendices found in *Minnesota Birds* listing geographic distribution of breeding species, seasonal occurrence of regular species, plus the selected bibliography. The "Nomenclature" section at the beginning of *Birds of Minnesota* does include lists of regular (304 species), casual (28), accidental (65), extirpated (2), and extinct (1) species plus deletions (5) and addi-

tions (31). At the time of publication, the Minnesota list of regular, casual and accidental species is 397. Two extirpated and one extinct species raise the grand total to 400. The book is indexed, and maps dividing the state into geographic regions and identifying counties are included.

Eight pages of good quality color photos are found in the middle of the book's 352 pages. They are of basically three inch by four inch format, and each photograph is accompanied by a paragraph by Eckert discussing the habits, habitat, range, field marks or significance of the species in Minnesota. The labels of the Sharp-tailed Grouse and Greater Prairie-Chicken were somehow reversed, but maybe this small error will test the credulity and confidence of browsing birders.

This fine book is not the last word about birds in Minnesota. But its concern for avian detail, addressed to the human community of those who love birds and who love to bird in Minnesota, tells us that the last word will never be written. It's true, "much of Minnesota remains to be discovered," and more bird species arrive each year. Who will find the first Black Vulture in the state of Minnesota? Do Osprey nest in Houston County? Where is the best manured field in Fillmore County for longspurs? I, myself, have my eyes on a promising new sewage pond.

509 Winona St., LaCrosse, WI 54603

Prehistory of the Minnesota Ornithologists' Union

Gustav A. Swanson

The MOU reaches the age of 50 this year, and will be celebrating this anniversary in several ways. My aim here is to describe the activities which led to the formation of the MOU, its pre-history.

Dr. Thomas S. Roberts was, of course, the most important influence in the early days of Minnesota ornithology, and hence in the MOU. He became associated with the museum at the University in 1915; became Director in 1919; and by 1922 had begun to contribute a series of "Season" reports on the birdlife of Minnesota in the magazine *Bird-Lore,* published by the National Audubon Society. Bird students from all over the state sent him their records, and he summarized them for the *Bird-Lore* articles and for his museum files. Aready in 1921 he had decided to produce a major book on birds of Minnesota and was assembling the data toward that goal.

The museum, then in the Zoology Building, attracted anyone interested in birds. We came to see the beautiful dioramas which were among the finest in the country, to attend the Sunday afternoon lectures, and to meet Dr. Roberts with whom many of us had corresponded long before we ever met him.

Charles Evans and I, when in our mid-teens, had the experience that was typical. We had sent to Dr. Roberts bird records, which he promptly acknowledged; but we held him in such awe that we never thought of going to his office to meet him. On one of our trips to the museum, we were standing in the hallway admiring one of the dioramas when Dr. Roberts came by and stopped to meet us and visit about the habitat group and about our birding experiences. For us it was a memorable day; we learned that he was gracious and approachable, and very interested in young people.

Another important element in MOU prehistory was the Minneapolis Audubon Society, which had begun in 1915 at the Women's Club. For years it was the only bird club in

the state. Beginning as a women's organization, it recognized the need for welcoming men and accordingly moved its meetings out of the Women's Club. I became acquainted with it in 1925, when I was 15. Its monthly meetings were held in the Walker Branch of the Public Library, alternating between afternoons and evenings, the latter to accommodate the working men. The meetings were announced in the newspapers and were open to the public; several of us youngsters met at those meetings where we were welcomed graciously. Thus, it is fair to say that the next bird organization in the state, the Minnesota Bird Club, was an off-shoot of the Minneapolis Audubon Society.

By 1929, we decided that perhaps there were enough interested young men to justify starting a bird club of our own; so we called a meeting for March 15, 1929 at the Walker Library. It was attended by 13, mostly youngsters in their teens, but including two somewhat older men who were seasoned birders: E.D. Swedenborg and Sam A. Grimes. Grimes was a lithographer by trade who had requested a transfer to Minnesota for a year in order to study its birds. He then returned to Florida but made an occasional birding trip back to Minnesota. Swedenborg, who worked in the Post Office, had been supplying Dr. Roberts with bird records for several years. The three objectives of the little club were: to hold meetings, to publish a magazine, and to conduct field trips.

My interest in proposing that the new club put out a "magazine" had been inspired by membership in a small organization of teenagers scattered around the country. It was dubbed the Nature Correspondent Association and the correspondence was by way of a mimeographed publication called the *Passenger Pigeon*. Roger Tory Peterson, one of the members, had made a fine drawing of the bird for the cover, and we contributed something for each issue. My most ambitious contribution, I recall, was a key to the shorebirds of the eastern U.S., because I had been helping Dr. Roberts and Mr. Kilgore with the key that Dr. Roberts was preparing for his book.

Chuck Evans and I, therefore, brought with us to this first meeting of the club, a sample of a proposed journal which I had turned out at home on a "Hectograph," (a crude copying process which involved typing the material on a special carbon sheet and then transferring it to a gelatin plate from which a few copies could be made). When the group approved of the newsletter idea, that first issue, dated February 1929, was repeated in mimeographed form for wider distribution. Dr. Roberts' set of *The Flicker,* now in the Library of the Bell Museum of the University of Minnesota, included both the Hectographed issue, (now faded so almost impossible to read), and the later mimeographed form. The first issue had no name; the second, in April, was titled *The Flicker;* and by issue No. 3, Mr. Breckenridge had drawn a fine image of the flicker for the cover. Sam Grimes contributed the engraving.

Our little group of young men met twice in the Walker Library but then Dr. Roberts offered the use of the lower floor lecture room in the University Zoology Building, and urged us to meet there. This was an improvement for those who were students at the University, and the attendance increased until sometimes as high as 50, when we had a prominent speaker.

Some of the meetings were devoted entirely to the exchange of birding experiences, but at many meetings we had interesting outside speakers. Dr. Roberts and Walter Breckenridge regularly attended the annual meetings of the American Ornithologists' Union and would review these scientific meetings for us — good evidence of the seriousness of our interest in the science. Among our speakers were two prominent members of the University of Minnesota Medical School faculty: Drs. A. P. Henrici and Robert G. Green, who spoke about their research on diseases of wildlife. A member of the Botany faculty, Ned L. Huff, a dedicated bird student, gave a fine illustrated talk about finding the first Connecticut Warbler's nest in the state.

One interesting event was a two-day "Tri-state" ornithology conference held in May 1935, in Sioux City, Iowa. It was chaired by biology professor, T.C. Stephens of Morningside College there, who was the Editor of the *Wilson Bulletin*. The Nebraska Ornithologists' Union, established in 1899, and the Iowa Ornithologists' union, begun in 1923, the hosts, implied that Minnesota should also organize a "Union." Though Minnesota had no corresponding organization, Dr. Roberts was, of course, well known to the entire country as well as the midwest

region because his *Birds of Minnesota*, published three years earlier, was widely recognized as the finest of all the state bird books. He passed on to *The Flicker* the announcement of the conference, urging that interested birders from Minnesota attend, but I believe that he and I were the only Minnesotans there. I recall that some portions of the meeting became quite boring, especially when the two state organizations were discussing business matters, and on one occasion Dr. Roberts leaned over to me and in a loud whisper, which he didn't realize was being heard by many others, said: "This is pretty dull, isn't it? Let's go up to my room and play a game of cribbage," and we did.

It interested me to find that today the NOU, though begun in 1899, has only about 200 members, and the IOU, begun in 1923, has only 350; while our Minnesota group, organized so much later, has about 1200 members. You are welcome to suggest your own explanation for this difference.

The ambitions of the Minnesota Bird Club in its earlier meetings now seem a bit amusing. At first we agreed that meetings should be held twice a month and *The Flicker* would be issued bimonthly, but such overambitious plans soon were modified by practical considerations to meetings once a month and the journal quarterly.

Ambitions to improve the quality of *The Flicker* were mentioned frequently and were clearly needed. In the first few years, the amateurishness of editing and production now seem all too clear; but from the very beginning much of the content was valuable ornithological observations which Dr. Roberts transferred to his museum files, (as indicated in his delicate handwritten note on the cover of each issue in his set, which is now in the Bell Museum Library: "bird bib. written"). We had aspirations to produce *The Flicker* in printed rather than the mimeographed form; we actually bought a font of type for that purpose but promptly found that setting type by hand, letter by letter, was too time-consuming to be practical.

In 1929 Sam Grimes established the tradition of compiling from members the nesting bird records for the state. Members found 91 species nesting in 1929; in 1930, when E.D. Swedenborg assembled the records, there were 114 species; in 1932, we recorded 136 species nesting, and in 1934, the highest, 146 species. Another annual feature was a Christmas census compilation.

Each issue, beginning with Number One, had a section devoted to ornitholigical literature, often brief reviews of new books. We were quite current on the literature because Dr. Roberts kept us so well informed. In 1934, we noted Roger Tory Peterson's new *Field Guide To The Birds,* priced at $2.75 hardbound, and called attention to its unique concentration on field marks. In the same year, the first of the long series of Cornell University publications on bird songs appeared: *Songs of Wild Birds,* by Albert Brand, complete with two phonograph records, all for $2.00. In 1935, P.A. Taverner's *Birds of Canada* appeared, also at $2.00, and it was quickly appreciated by Minnesota birders. His earlier *Birds of Eastern Canada* had been published in both French and English editions, and had been used by doctoral candidates at the University when preparing for their French reading examinations! Another diversion involves the subject of Taverner's full name. The AOU secretary tried several times to learn Taverner's full given names, for which he always used only initials. Finally the Secretary wrote in exasperation to Taverner, "We need your full names for our archives. If you do not furnish them I'll record you as Percy Algernon Taverner." This time he got a reply which said only, "Guilty as charged."

In reviewing the *The Flicker* for its first nine years, I was impressed that so many of the contributors, who were then students, continued their interest in ornithology as a career in the rapidly developing wildlife management field. Marius Morse, Jerome Stoudt, William Webb, Kenneth Carlander and Arnold Erickson were among these. Others who continued their strong interest in birds as contributory to careers involving biology were Alden Risser and George Rysgaard in medicine, Charles Evans in medicine and microbiology, Sterling Bracket in parasitology and Milton Thompson, museum director.

Ambitious group field trips were held frequently, beginning with the first year of the MBC existence; those during the Christmas holidays sometimes met severe weather conditions with temperatures 20 or more degrees below zero. Such experiences were not comfortable at the time but are memorable.

The need for a statewide "union" was not

felt urgently until we became aware of the activities of the T.S. Roberts Bird Club in St. Cloud under the leadership of Professor G. W. Friedrich of the State Teachers' College. The Minnesota Bird Club and *The Flicker* had "associate members" from out-state, who contributed articles as well as subscribing. Nellie O. Wilson, Mrs. C.E. Peterson from Madison and Nestor Hiemenz of St. Cloud were the most active. We, in the MBC, were a bit complacent in feeling that it served the purposes of a statewide organization until we learned of the St. Cloud Club. It began in August of 1934 with 15 members, and in August of 1935, issued a 35 page mimeographed *Minnesota Bird Life Magazine*. It contained not only local contributions but articles by two nationally prominent wildlife activists: Irving Brant and Dr. W. T. Hornaday, who were urging that waterfowl hunting be prohibited in view of the drastic reduction of waterbird populations during the catastrophic drought. The following year, in April 1936, the T.S. Roberts Club produced an impressive, nicely printed annual, the *Journal of Minnesota Ornithology,* a 68 page publication which included articles by such prominent writers as Dr. T.S. Roberts, A.D. DuBois, and from the U.S. Bioligical Survey, Dr. Harry Oberholser. This outdid the mimeographed *Flicker* in both format and content, as well as title, and shattered our complacency. We learned that the *Journal* was produced at the state reformatory in St. Cloud in its printing department to provide inmates vocational training, and that the cost to the club was minimal. *The Flicker* was able, beginning in 1937, to produce a printed journal also, by making an arrangement with the printing department of the Vocational High School in St. Paul.

In April 1937 the second and last issue of St. Cloud's *Journal of Minnesota Ornithology* was published, only 15 pages this time, consisting of bird observations by its members, which then numbered 41, quite a few of them from parts of the state other than St. Cloud.

During 1935 and 1936, while I was employed by the State Conservation Department, I became acquainted with Professor Friedrich, who was a newly appointed member of the Conservation Commission; we discussed the desirability of the bird clubs in St. Cloud and the Twin Cities joining forces rather than continuing separately and putting out two publications.

On October 10, 1937 George Rysgaard, then editor of *The Flicker* went to St. Cloud with other members of the MBC to discuss with the T.S. Roberts Bird Club the possibilities of a federation to form a single, statewide, ornithologists' union. The reactions were encouraging. He had already learned of the existence of another organization of serious birders when visiting Duluth State Teacher's College on another mission. The Duluth Bird Club was formed April 24, 1937 at the College; Mary Elwell, instructor in mathematics, was president and Olga Lakela, head of the biology department, was adviser. Communication by mail with the Duluth group also brought a favorable reply. Thus, on April 13, 1938 representatives of these three clubs met at the University of Minnesota in the Zoology Building to organize the Minnesota Ornithologists' Union. The first officers were George Rysgaard, President; Mary Elwell, Vice-President; Richard Voth, from St. Cloud, Secretary-Treasurer and Charles Evans, Editor. Since at this time *The Flicker* had been in existence for over nine years, it was agreed that it should be continued as the organ of the new union.

I inquired into the present status of the three bird clubs which formed the MOU. The Minnesota Bird Club, though still listed as an affiliate of the MOU, has actually died of old age after 58 years of existence, its last president has informed me. Its activities of meetings, field trips and the journal have all been taken over effectively by the MOU.

The T.S. Roberts Ornithology Club was, from its inception, sponsored by the State Teachers' College at St. Cloud and its biology professor, George Friedrich. When he retired, the club became less active and held its last meeting May 22, 1959 and was then officially terminated February 23, 1961 by recommendation of its faculty adviser, Professor Goehring. Its archives were transferred to the college's Academy of Science. The Central Minnesota Audubon Society is now the St. Cloud organization in the MOU.

The Duluth Bird Club, organized at the Duluth State Teachers' College, is still going strong as the Duluth Audubon Society. Its activities over the years have included sponsoring the National Audubon Screen Tours promoting the prohibition of hawk shooting

which was common in its early days, by patrolling the shooting areas, destroying the hawk shooting blinds, and having members become deputized by the city police department; initiating the hawk watches during fall migration; conducting a bluebird trail of bird houses; initiating the land purchase program for the Hawk Ridge Nature Reserve; and for eight years, banding 500 Herring Gulls annually to determine their migration and wintering areas.

Finally, the Minneapolis Audubon Society, the first bird organization in the state, is still active, with over 150 members, and since 1940, has been an active member of the MOU.

In preparing for this review, I have consulted with the following, whose help I appreciate: Sam Grimes, Alden Risser, Charles Evans, George Rysgaard, Nestor Hiemenz, Prof. Al Grewe, W.J. Breckenridge, Wally Jiracek, Pershing Hofslund, and Joel K. Bronoel.

Chronology of Events Leading to the Formation of the Minnesota Ornithologists' Union

1915 — Dr. Thomas S. Roberts appointed as Associate Curator of the University of Minnesota Zoological Museum.
— Minneapolis Audubon Society formed.

1919 — Dr. Roberts made Director of the University Museum.

1921 — Dr. Roberts announced plans for a book on birds of Minnesota, and in 1922 began contributing "Seasons" reports to *Bird Lore* magazine.

1929 — Minnesota Bird Club organized, holding monthly meetings, conducting group field trips, and publishing mimeographed *The Flicker* as official organ.

1932 — T.S. Roberts two-volume *Birds of Minnesota* published.

1934 — T.S. Roberts Bird Club organized at St. Cloud State Teachers' College.

1935 — "Tri-state" ornithology conference at Sioux City, Iowa with Nebraska and Iowa Ornithologists' Unions.

1936 — T.S. Roberts Bird Club published printed annual *Journal of Minnesota Ornithology.*

1937 — *The Flicker* began publication in printed form.
— George Rysgaard, editor of *The Flicker,* met in St. Cloud with representatives of T.S. Roberts Bird Club to discuss consolidation.
— Duluth Bird Club organized at Duluth State Teachers' College.

1938 — Representatives of Minnesota Bird Club, T.S. Roberts Bird Club, and Duluth Bird Club met April 13 at University of Minnesota Museum of Natural History to form Minnesota Ornithologists' Union, and selected *The Flicker* as official organ.

1020 E. 17th St., Minneapolis, MN 55404

A Minnesota Birding Adventure: A Journey West

Parker Backstrom

The summer doldrums had set in. Even though Keith Camburn and I were with a group who spent the last week of May birding southeastern Arizona, and Keith then spent June birding in Belize and Guatamala, we itched to see Minnesota birds. Despite the hot and muggy weather that had settled over much of the state, we decided to brave the elements (summer?!) and make our way to Rock County where we would begin a four-day journey north. A swing through western Minnesota sounded like just the cure for the summer-time birding blues. This would be our first trip of the year to the western part of the state and the first chance to pick up the western species for individual year-lists. But the real reason for the trip was the hope that we would come across one or more of those special species that seem to make a hot, grueling trip seem short and sweet, at least in retrospect.

Before our departure we sat down and listed those species and the strategy that we'd employ to try to find them: a search along lakes and ponds in Lincoln, Lyon, and Cottonwood Counties for Least Tern, Ruff, Snowy Plover, White-faced Ibis, or any rare herons; a search of abandoned farms and houses in Rock County for Common Barn-Owl. We'd keep our eyes open along back roads and powerlines for the likes of Say's Phoebe and Scissor-tailed Flycatcher, and certainly a visit to Big Stone National Wildlife Refuge or Pelican Lake would turn up a Little Blue Heron, Tricolored Heron, or Snowy Egret! Perhaps a walk through Felton Prairie would uncover a singing Sprague's Pipit or Baird's Sparrow or turn up the Burrowing Owl located there only a month earlier. Although we knew that the odds weren't in our favor, optimism always springs eternal in the minds of birders about to leave on a birding trek. At the very least this would be a chance to explore some of the most unique birding areas in the state.

We left Duluth early on Sunday morning, July 19th, and headed down Highway 23 toward Rock County. Our first stop was Sham Lake in Lyon County to look for shorebirds and herons. While Sham Lake didn't produce that Least Tern we hoped for, a trip to nearby Gabriel Lake yielded shorebirds numbering in the many hundreds! Almost all the birds wading in the northwest corner of the lake were Lesser Yellowlegs, but there were good numbers of Greater Yellowlegs, Pectoral and Stilt Sandpipers, dowitchers, and a few Solitary, Least, and Semipalmated Sandpipers sprinkled throughout. While the number of species was modest, the number of individuals was impressive.

A quick trip through Murray County to look for a pair of Cinnamon Teal seen there much of the summer was unsuccessful so we continued on towards Rock County. We stopped just inside the county line to visit the field where Burrowing Owls nested in 1983 and '84. We found that the pasture had grown up quite a bit and it no longer looked like suitable habitat.

It was on to Blue Mounds State Park. This is certainly one of the most unique spots in the entire state of Minnesota, not only for its unique avifauna, but for its vegetation, geography, topography, and overall "feel". A walk through its open, rolling grasslands uncovers such unlikely inhabitants as cactus and American Bison (captive). The Sioux quarzite cliffs against the blue sky and open horizon gives one a sense of being some 200 miles west of Minnesota.

Keith and I found a singing Blue Grosbeak at the abandoned farm about a mile south of the park entrance. The deserted buildings here look so suitable for barn-owls that each time I visit this area I can't help but feel that "this will be the time" that a careful search will uncover this most elusive of Minnesota's owls. After setting up our tent in the park campground, we hiked along the upper and lower cliff trails looking at and listening to Western Meadowlarks, Grasshopper Sparrows, and many Dickcissels. We also found Orchard Orioles and observed many foraging

nighthawks. While watching these aerial acrobats we heard them give their "booming" call many times. As dusk settled over the prairie, we returned to our camp to reflect on our first day, a long and hot one, before turning in for the night.

Monday the 20th turned out to be a rather uneventful day. After a brief hike through the park, we headed north. We drove the backroads of Pipestone and Lincoln counties making sure to check the potholes of the latter. Again a search of abandoned buildings along the way failed to uncover anything unusual, but the back roads did reveal to us the apparent results of the previous mild Minnesota winter. We found our second of several broods of gallinaceous birds. This brood of twelve young and two adult Gray Partridge was larger than the group of nine seen earlier along Highway 75 in Rock County. We would see another family group of fourteen partridge in Clay County and a trip-ending total of forty. Besides the partridge, we saw a total of twenty-seven Ring-necked Pheasants including family groups of eight, nine, and ten birds. We spent the rest of the day birding along Lac Qui Parle and Marsh Lakes and Big Stone Refuge. One of my favorite spectacles in this part of the state is the sight of American White Pelicans as they loaf together on a sand bar or wheel about together over a lake, their gleaming white bodies and black flight feathers standing out against the blue sky. We had ample opportunity to enjoy this sight at several spots along our route encountering many pelicans all along the river. We also found many Great Egrets and Great Blue Herons at Big Stone, but found no sign of the Little Blue we hoped yet to find. That night we camped in Big Stone Lake State Park and witnessed a dark and turbulent storm moving north from South Dakota. The dark, dynamic clouds and frequent lightning strikes, coupled with a strong wind that materialized almost instantaneously promised a violent storm. We were kind of disappointed that the fury tempered itself and we got nothing more than sprinkled upon.

Tuesday dawned bright and sunny and promised to be another hot day in western Minnesota. We took one more drive through Big Stone Refuge, seeing literally hundreds of Wood Ducks, before continuing on our way. We meandered toward Ashby and Pelican Lake in Grant County hoping to find something interesting amongst the flocks of herons and egrets that nest in the area. Along Highway 10, a few miles south of Pelican Lake, we saw a group of white herons standing in a log-strewn farm pond. Stopping to look them over revealed to us our first surprise of the trip: four breeding-plumaged Snowy Egrets! Their black bills and black legs with bright yellow feet really stood out as they watched us watch them. We hoped that this would be a harbinger of things to come and drove on. One of our target tripbirds was Cattle Egret and Pelican Lake is the most reliable spot in the state to see them. Hoping to locate a flock amongst the grazing cattle in the area, we began driving the numerous dirt roads around the lake and looking over the myriad of ponds scattered throughout the area. This technique, while failing to bring us in contact with a much-desired Tricolored Heron, did turn up two individual Cattle Egrets with their rusty caps, backs, and breastplates. A drive around the lake produced five species of herons but not much else, so we set our sights on Rothsay Wildlife Management Area in Wilkin County. The only thing of interest here was a flushed Greater Prairie-Chicken. Keith and I drove over to the Moorhead sewage ponds but they proved to be a disappointment as some of the ponds were completely dry and those with water yielded little more than Wood Ducks, a species apparently having a banner year. Now nearing dusk we headed for a place to clean up, fill up, and rest our weary bones. The final bit of excitement on this day was a tremendous storm that hit after we had set up camp at Buffalo River State Park (a nice campground with a swimming hole and showers). We returned from dinner to find our tent all but floating away. Despite the wet arrangements sleep came easy.

It was finally the day to visit the wonderful Felton Prairie and area. The day dawned very windy and, as the morning progressed, the wind did not slack off very much. Keith directed the car north off County Road 26 along a dirt road running through the middle of the Prairie. At the three mile point, we pulled over to the side of the road and found ourselves parked next to a field that was home to Chestnut-collared Longspurs. We got out to drink in the delight of this Felton specialty. As we walked leisurely through the grazed pasture, enjoying their activity, we flushed

some recently-fledged longspurs and later discovered a well-hidden nest containing several recently-hatched young. Their appearance as a single ball of fluff made counting the exact number, without lifting them out of the nest an impossible task. The wind did not hamper us in detecting bird songs across the expanses. As we stood listening to meadowlarks, Horned Larks, and longspurs we heard a descending, flute-like song spiralling down from above us. Keith looked at me with wide eyes and said, "Why isn't that a Sprague's Pipit!?" We turned our eyes upward and quickly located the source of the sound - it was indeed the bird known to Audubon as the Missouri Skylark but know today as Sprague's Pipit. Being an elusive bird and a Minnesota lifer for both of us, our hearts began to beat faster. As we watched the bird, it plummeted suddenly and quickly from the sky only to break its fall just before striking the ground and land silently in the grass. We hurried over to the area where he landed and quickly located him walking through the short grazed grass. We got excellent views of this plain but attractive bird as he began to sing from the ground. Our day was certainly off to a good start.

We drove up to the Agassiz Natural Sand Dune Area near Fertile to look for Lark Sparrows before heading to the Crookston sewage ponds. As was the case with the Moorhead ponds, we saw very little of interest. The day was nearing its end, so we headed to our last birding location: Agassiz National Wildlife Refuge. Because we arrived after the headquarters closed for the evening, we were limited to driving the auto tour route. Here we saw all five grebes, pelicans, and, happily, good numbers of Canvasback broods all along the route. As we headed for the exit to begin our trip back to Duluth, I stated my disappointment at having missed Black-billed Magpie, probably for the year. Almost on cue, a pair flew leisurely across the road in front of us and perched nearby as if to ask, "Satisfied?" I certainly was.

Our last discoveries of the trip were a flock of some forty Sandhill Cranes feeding in a farmers field and an adult light-phase Rough-legged Hawk sitting on a fencepost, both in Beltrami County. (Minnesota's second July record for the Rough-leg). As darkness approached, we turned east and headed home.

It had been a fun trip. Our trip list stood at 126 species and both of us added one new state bird as well as lots of year birds. As a result of our trip, several birders got to see the Sprague's Pipit and Snowy and Cattle Egrets. That helped make the trip even better for us. After all, it's the experience of sharing something special with friends that enhances our own life experiences. And what can be more special than Minnesota's rich avifauna? Maybe next year we'll make a northern swing thru Minnesota, chasing away those summertime birding blues.

1204 E. 3rd St., Duluth, MN 55805

The Spring Season
(March 1 to May 31, 1987)

Don Bolduc, Steve Carlson, Oscar Johnson and Dick Ruhme

Foreword by Robert B. Janssen

The Spring Season of 1987 was one of the most unusual I can remember in 40 years of birding in Minnesota. The non-existent winter faded into a summer-like March and April. March had an average temperature in the Twin Cities of 38.7°F which was almost 10° above the average. It was the sixth warmest March on record, and it was dry with precipitation way below normal. These statistics were comparable all over the state.

April was even more summer-like. For example, on the 18th it was hot and windy in the Twin Cities with a high temperature of 87°F! Highs were in the 70's for the next few days. In Cook County in the northeast it was 83°F on the 20th. In Rochester, the April average temperature was 50.8°F which was 6.2° above normal for the 5th warmest April on record. It remained dry with precipitation well below normal. The lawns "greened" in the cities from the warm temperatures, but within a few days they were burned up and it looked more like July than April.

May weather saw a continuance of above normal temperatures, but not as much above normal as the previous two months. Early May was hot, dry and windy in the Twin Cities, there was a record high 93°F on the 17th. In Rochester, the May average temperature was 61.0°F which is 4.1° above normal. Once again precipitation all over the state was way below normal.

What effect did all of this abnormal weather have on the birds? As might be expected, the spring migration of waterfowl and other early spring migrants, such as gulls, robins, blackbirds, meadowlarks and grackles, was in full swing by the first week in March. This was at least two to three weeks ahead of normal. If you count the dates in bold type in the following accounts, which indicate a record early date, you will find approximately

130 new early dates. This is an amazing total for one spring season. Normally 10 to 15 early dates are recorded, so you can see what a unique spring this was. Ray Glassel and I recorded 67 species in the southern part of the state on March 22nd, a record early date for that many species.

There are too many early or unusual dates and species to list individually in this summary; but some of the major highlights follow. The most unusal record was that of the Garganey in Waseca County in late April. A close second was the Golden-crowned Sparrow found on the same date as the Garganey, in Chippewa County. There were two Eurasian Wigeons in Nicollet County in March. The Harlequin Duck stayed in Austin until early April. The Common Black-headed Gull was again seen at Heron Lake, this time in late April. The first Little Blue Heron in some time was seen in Winona in late April and a Rock Wren was seen in Eagan, Dakota County on April 19 and 20. The first ever March Le Conte's Sparrow was found in Blue Earth County on the 22nd. Tree Swallows were back by March 12. A Yellow Rail was in Lac Qui Parle County on April 25. The earliest ever Cape May Warbler was in Minneapolis on April 26.

In May, the list of Casuals and Accidentals gets longer. There was a Clark's Grebe at Heron Lake on May 2. At Agassiz NWR, a Laughing Gull was seen on May 7, Snowy Egrets on May 13 and Snowy Plover on May 15. A Laughing Gull and 14 Red Knots were seen in Duluth on the 19th and a Long-billed Curlew was in Ely on the same date. White-eyed Vireos were recorded in Brown and Steele Counties. The Sage Thrasher in Grand Marais attracted many Minnesota listers during mid-May and the Yellow-throated Warbler at Frontenac was also seen by many birders. The Burrowing Owl at Felton Prairie in Clay County on May 23 was a first in a long time in that area.

Encouraging is the spread of the Blue-gray Gnatcatcher into new areas; they were recorded in Pipestone and Lac Qui Parle Counties in the southwest. Peregrine Falcons were seen in 11 counties at 14 locations. The re-introduction program of Peregrines certainly seems to be working! Piping Plovers were in Stearns, Clay and Washington Counties in May. Hopefully this is a sign they are still breeding in some numbers in the state.

I could go on and on with unusual dates and places for records from Spring, 1987 but I have to stop somewhere. I leave you with a thought on one final record — an American Woodcock was recorded in Pope County on March 3. When will we start seeing American Woodcock in the state in February?

Red-throated Loon

5/24 St. Louis SDM; only report.

Common Loon

Early south **3/10** Faribult KWB, 3/24 Wabasha WDM, 3/26 Ramsey RG; early north 4/5 Aitkin WN, 4/6 Beltrami TK, 4/9 Cass KH and Crow Wing DO.

Pied-billed Grebe

Early south 3/7 Winona RG, 3/8 Murray RJ, Dakota TT; early north 3/27 Marshall ANWR and Wilkin SDM, 3/29 Becker GAM and Clay LCF.

Horned Grebe

Early south **3/11** Dakota TT, 3/22 Nicollet KR, 3/25 Hennepin m.ob.; early north 4/11 Grant RJ, 4/15 Becker BK, 4/20 Marshall ANWR.

Red-necked Grebe

Early south **3/28** Chippewa AP, 4/5 Hennepin SC, 4/11 Anoka SC, GP; early north 4/7 Marshall ANWR, 4/11 Grant RG, RJ, 4/17 Clearwater AB.

Eared Grebe

Early south 4/11 Nicollet MF, 4/24 Lac Qui Parle OJ; early north 4/20 Marshall ANWR, 4/28 Red Lake GS and 5/17 Polk AB.

Western Grebe

Early south **4/11** Nicollet MF, 4/18 Sibley RJ, 4/19 Blue Earth RG; early north 4/28 Pennington GS, Wilkin GAM, 4/29 Marshall ANWR.

CLARK'S GREBE

5/2 Heron Lake, Jackson, B. Pieper, D. Ruhme (**The Loon** 57:102). 5/7 Duluth M. Hendrickson, KE et al. (**The Loon** 59:210-211).

American White Pelican

Early south 4/1 Scott EK, 4/8 Blue Earth JCF, 4/11 Lincoln AB; early north 4/17 Clay

LCF, 4/18 Beltrami TK and Clearwater AB, 5/14-19 **Duluth,** K. Camburn, D. Johnson.

Double-crested Cormorant
Early south **3/25** Dakota TT, 3/28 Lac Qui Parle m.ob., 3/29 Rock GS, Wabasha KR; early north 4/11 Douglas RJ and Duluth KE, 4/12 Clay LCF.

American Bittern
Early south 4/4 Watonwan ED, 4/24 Pipestone JP, 4/25 Lac Qui Parle TBB; early north 4/18 Aitkin WN, 4/22 Marshall ANWR, St. Louis SW/MS.

Least Bittern
5/23 Sherburne AB, 5/30 Douglas RG, RJ; only reports.

Great Blue Heron
Early south 3/6 Washington TBB, 3/7 Ramsey BL, 3/9 Mower JM; early north **3/19** Otter Tail SDM, 3/21 Hubbard HJF, 3/22 Beltrami KH.

Great Egret
Early south **3/22** Ramsey BL, 3/24 Hennepin RJ and Wabasha WDM; early north 4/7 Otter Tail SDM, 5/5 Becker BK and Marshall ANWR.

Snowy Egret
5/13 Marshall ANWR; only report.

Little Blue Heron
4/26-27 Winona AP; only report.

Cattle Egret
5/5 Wright TM, 5/7 Nicollet MF, MT, 5/19 Mower RRK, 5/24,27 Grant RE, SDM.

Green-backed Heron
Early south 4/2 Wabasha WDM, 4/26 Goodhue KR and Pope DR; early north 5/9 Duluth RJ, 5/17 Aitkin WN, 5/18 Marshall ANWR.

Black-crowned Night-Heron
Early south 3/24 Hennepin RJ, 4/10 Washington DS, 4/11 Nicollet MF; early north 4/18 Marshall ANWR, 5/2 **Duluth** fide KE, 5/29 Grant GAM.

Yellow-crowned Night-Heron
5/26-6/1 Hennepin SC, KR, ES; only report.

Tundra Swan
Early south 3/13 Wabasha WL, 3/16 Ramsey KB; early north **3/20** Beltrami KH, **3/21** Aitkin WN; late south 4/5 Hennepin ES, Washington WL; late north 5/9 Marshall TK, 5/24 Duluth AE.

Trumpeter Swan
Reported 3/24 Stearns NH (2), 4/1 Mille Lacs DB, 4/12 Hubbard JL (3), all assumed to be released from Carver Park in recent years.

Mute Swan
Reported 3/27-until late May, Duluth m.ob.

Greater White-fronted Goose
Early south **3/11** Faribault JCF, 3/22 Nicollet KR and Olmsted RSE; early north **3/22** Clay LCF, 3/31 Becker BK; late south 3/28 Lac Qui Parle m.ob.; late north 5/7 Marshall ANWR, 5/10 Clearwater RG, RJ.

Snow Goose
Early south **3/4-5** Fillmore AP, RG, **3/6** Nicollet JCF, early north 3/22 Clay LCF, 4/3 Becker BK; late south 4/6 Ramsey RH, 5/28 Hennepin KR; late north 5/5 Marshall ANWR, 5/17 Duluth KE.

Canada Goose
Reported from 31 counties south, 15 north.

Wood Duck
Early south 3/7 Ramsey RG, 3/8 Blue Earth, Brown, Dakota, Hennepin, Houston, Lyon, Sibley; early north **3/6** Otter Tail SDM, **3/8** Clay MMM, 3/19 Aitkin WN.

Green-winged Teal
Early south 3/6 Olmstead JB and Nicollet JCF, 3/7 Goodhue DZ and Wabasha RG, WDM; early north **4/4** Duluth KE and Wilkin GAM, 4/7 Marshall ANWR.

American Black Duck
Early south 3/6 Nicollet JCF, 3/7 Wabasha WDM, 3/9 Yellow Medicine KE; early north 3/24 Marshall ANWR.

Mallard
Reported from 35 counties south, 13 north.

Northern Pintail
Early south 3/2 Wabasha WDM, 3/4

Faribault JCF, 3/7 Cottonwood, Goodhue, Hennepin, Houston, Mower.

GARGANEY
4/29-5/1 Goose Lake, Waseca Co. RG, m.ob. (**The Loon** 59:112).

Blue-winged Teal
Early south 3/11 Murray ND, 3/20 Freeborn NHo, Nicollet JF and Olmsted JB; early north **3/22** Otter Tail SDM, 4/4 Aitkin WN, Wilkin GAM.

Northern Shoveler
Early south 3/7 Goodhue DZ, Wabasha WDM, Washington TBB and Winona RG; early north **3/29** Grant SDM, 4/7 Marshall ANWR and Duluth KE.

Gadwall
Early south 3/1 Hennepin TBB, 3/5 Dakota TT, 3/6 Nicollet JCF; early north 3/22 Otter Tail SDM, 3/26 Marshall ANWR, 4/18 Clearwater AB.

EURASIAN WIGEON
3/11 Oak Leaf Lake, Nicollet Co. P. Hertzel (**The Loon** 59:146-147).

American Wigeon
Early south 3/4 Olmsted RG, AP, 3/5 Wabasha KR, 3/6 Nicollet JCF; early north **3/6** Beltrami TK, **3/15** Wilkin SDM, 4/6 Marshall ANWR.

Canvasback
Early south 3/2 Brown RG, 3/4 Waseca JCF, 3/7 Dakota, Goodhue, Hennepin, Houston, Mower; early north **3/22** Clay LCF, Otter Tail SDM, 4/4 Wilkin GAM.

Redhead
Early south 3/4 Blue Earth and Waseca JCF, 3/6 Brown JS, Cottonwood ED, Dakota RG; early north 3/22 Clay LCF, Otter Tail SDM, 4/2 Wilkin GAM.

Ring-necked Duck
Early south **3/2** Scott RH, Brown JS and Waseca JCF; early north **3/20** Otter Tail SDM, 3/22 Clay LCF, 3/24 Beltrami KH.

Greater Scaup
Early south 3/6 Dakota TT, 3/8 Brown RJ, Lincoln HK; early north 3/10 Clay MMM, 3/11 Aitkin WN, Beltrami TK 4/6 Marshall ANWR.

Lesser Scaup
3/1 Cottonwood LAF, 3/2 Brown RG, 3/4 Blue Earth, Waseca JCF, Mower RRK; early north 3/20 Otter Tail SDM, 3/21 Aitkin WN, 3/22 Clay LCF.

Harlequin Duck
Overwintered, seen until 4/4 Austin, Mower Co. RRK, m.ob.

Oldsquaw
5/16-19 Cook RG, RJ, AP; only report.

Black Scoter
5/5 Duluth K. Camburn, M. Hendrickson.

Surf Scoter
5/3-5 Freeborn RSE, RG, AP, 5/16-17 Duluth KE, m.ob.

White-winged Scoter
5/5-8, 5/21 St. Louis KE, SDM.

Common Goldeneye
Late south 4/5 Goodhue AB, 4/12 Anoka SC, 5/8 Ramsey KB.

Bufflehead
Early south 3/3 Scott AB, 3/6 Ramsey KB and Wabasha WDM; early north 3/22 Clay LCF and Otter Tail SDM, 3/23 Marshall ANWR; late south 4/26 Waseca AB, 4/30 Hennepin BDC and Ramsey KB.

Hooded Merganser
Early south **3/1** Dakota TT, 3/2 Hennepin SC, 3/4 Mower RRK; early north 3/22 St. Louis AE, 3/23 Marshall ANWR, 3/28 Mille Lacs AB, DB.

Common Merganser
Late south 4/12 Stearns NH, 4/14 Pope DR, 4/23 Washington WL.

Red-breasted Merganser
Early south **3/2** Hennepin OJ, 3/7 Dakota RG, 3/10 Faribault KWB and Washington TBB; early north 4/4 Aitkin WN, 4/6 Marshall ANWR, 4/9 Becker BK.

Ruddy Duck
Early south 3/7 Blue Earth JCF, 3/8 Yellow

Medicine KE, 3/21 Olmsted JB; early north 4/9 Marshall ANWR, 4/13 Grant SDM, 4/25 Wilkin GAM.

Turkey Vulture
Early south **3/6** Stearns NH, 3/16 Mower RRK, 3/20 Wabasha AP; north 4/9 Duluth KE, 4/18 Clay LCF, Cook KMH, Aitkin WN.

Osprey
Early south 3/18 Stearns NH, 3/19 Washington DS, 4/10 Goodhue BL; early north **3/22** Grant SDM, 4/8 Aitkin WN, 4/13 Marshall ANWR.

Bald Eagle
Reported from 25 counties south, 16 north; peak 3/16 Wabasha (86) AP; two Houston County nests (FL).

Northern Harrier
Six February reports (**The Loon** 59:132), also 3/4 Olmsted JB, 3/5 Fillmore RG, AP and Freeborn NHo; north 3/6 Marshall ANWR, 3/14 Polk BK and St. Louis AE.

Sharp-shinned Hawk
Early south **3/1** Houston EMF, 3/15 Dakota JD, 3/20 Cottonwood LAF; early north **3/1** Duluth, L. Erickson, 3/22 Clay LCF, 4/19 Becker AB.

Cooper's Hawk
Early south **3/8** Chippewa RG, **3/12** Olmsted PP, **3/14** Hennepin OJ; early north **3/16** St. Louis KB, **3/20** Hubbard JL.

Northern Goshawk
Late south 3/21 Mower RRK, **4/23** Olmsted RSE, **5/29** Stearns NH.

Red-shouldered Hawk
Early south **3/6** Ramsey KB, **3/11** Anoka GP, 3/20 Washington DS; early north 4/3 Ottertail SDM, 4/18 Clearwater AB.

Broad-winged Hawk
Early south 4/9 Winona AP, 4/18 Brown JS, 4/19 Dakota TT and Mower JM; early north **3/20** Lake TM, 4/18 Aitkin WN and Hubbard HJF.

Swainson's Hawk
Early south 3/21 Goodhue JD, 4/10 Winona AP, 4/11 Lincoln AB; early north 4/13 Wilkin SDM, 5/10 Polk RJ.

Red-tailed Hawk
Reported from 31 counties south, 14 north.

Rough-legged Hawk
Late south **5/18** Olmsted JB, **5/23** Faribault KWB, **5/29** Redwood FE; late north 5/10 Beltrami RJ, 5/17 Clearwater AB, 5/19 Marshall ANWR.

Golden Eagle
Reported 3/7 St. Louis KB, 3/8 Yellow Medicine KE, 3/16 Meeker TM.

American Kestrel
Early north **3/3** Becker BK, 3/6 Clearwater KH, 3/7 Aitkin WN.

Merlin
Early south 3/15 Pope DR, 3/24 Winona AP, 4/14 Faribault KWB; early north **3/1** Duluth, T. Wiens (wintering bird?) 4/9 Cook KMH, 4/12 Clay LCF and Wilkin GAM.

Peregrine Falcon
Early south 3/22 Scott KR, 4/6 Dakota JD, 4/7 Ramsey TT; early north 4/18 Clearwater AB, 4/29 Lake of the Woods GS, 4/30 Marshall ANWR; reported from 11 counties, 14 locations, with successful nesting atop Multifoods Building, downtown Minneapolis.

Gray Partridge
Reported from 25 counties south; five north.

Ring-necked Pheasant
Reported from nine north and 31 south counties.

Spruce Grouse
All reports: 3/31-5/30 Lake m.ob., 4/29 Clearwater MM, Cook (no date) EH.

Ruffed Grouse
Reported from 13 north and 13 south counties.

Greater Prairie-Chicken
Reported from Cass, Clay, Clearwater, Hubbard and Wilkin counties.

Sharp-tailed Grouse
Reported from Aitkin, Clearwater, Crow Wing, Marshall, Roseau and St. Louis counties.

Wild Turkey
All reports: 3/3 Winona (10) AP, 3/10-5/31 Houston (max. 15) EMF, FL, JM, 3/12 Fillmore (4) AP, 4/11 Wabasha AP.

Northern Bobwhite
5/15 Helmer Myre S.P., Freeborn (1, wild?) NH.

Yellow Rail
All reports: **4/25-26** Lac Qui Parle KE, 5/1-5/14 Aitkin (max. 2) TK, KE, WN, 5/11 Marshall (many) RG, RJ.

Virginia Rail
Early south **4/13** Scott AP, 4/21 Hennepin SC, ES, 4/23 Fillmore AP; early north 5/5 Marshall ANWR, 5/16 Duluth m.ob., 5/17 Clay LCF.

Sora
Early south 4/24 Lac Qui Parle RH, 4/25 Anoka JH, Hennepin TT and Winona RJ, AP, 4/26 Olmsted RSE and Mower RRK; early north 5/3 Aitkin WN, 5/4 Marshall ANWR, 5/7 Beltrami TK.

Common Moorhen
All reports: 5/14 Goodhue RG, 5/17-18 Wabasha (3) AP.

American Coot
Early south **3/4** Waseca JCF, **3/6** Hennepin DB, **3/7** Washington BL, Olmsted RSE, Dakota TT and Goodhue DZ; early north 4/5 Wilkin GAM, 4/6 Marshall ANWR, 4/11 Duluth, P. Backstrom and Beltrami TK.

Sandhill Crane
Early south **3/21** Anoka and Chisago SC, GP, 3/29 Wabasha KR, 4/20 Hennepin AB; early north **3/29** Clay LCF, 4/10 Aitkin DB, 4/17 Marshall ANWR.

Black-bellied Plover
Early south 5/10 Goodhue TBB, 5/14 Nicollet MF; early north 5/12 Clearwater RG, RJ, 5/13 Duluth KE; late south 5/23 Stearns NH, 5/25 Anoka GP; late north 5/22 Cook WP, 5/31 Aitkin SC and St. Louis RSE.

Lesser Golden-Plover
Early south 4/25 Cottonwood GS, 4/26 Swift TBB; early north **4/17** Wilkin SC, **4/19** Otter Tail SDM; late south 4/16 Lyon (500) HK, 5/18 Pipestone JP; late north 5/17 Marshall ANWR and St. Louis KR, 5/22 Clay LCF.

Semipalmated Plover
Early south **3/29** Blue Earth MF, 4/24 Cottonwood KE, 4/26 Lac Qui Parle TBB; early north **5/4** Wilkin GAM, 5/5 St. Louis AE; late south 5/26 Stearns NH, 5/31 Hennepin SC; late north 5/30 Otter Tail RJ, 5/31 St. Louis RSE.

SNOWY PLOVER
5/15 Agassiz NWR, J. Mattsson (**The Loon** 59:155).

Piping Plover
All reports: 5/9 Stearns NH, 5/17 Clay LCF, 5/22 Washington TBB. None for the first time ever in Duluth.

Killdeer
Early south 3/2 Dakota TT, 3/4 Olmsted JB, Cottonwood LAF and Hennepin OJ; early north **3/3** Clay and Hubbard JL, **3/4** Otter Tail SDM, **3/7** Wilkin GAM. 4/21-5/7 Duluth albino (**The Loon** 59:147-148)

American Avocet
All reports: 4/25 Big Stone (2) KE, 4/28 Pennington GS, 5/5-9 Marshall ANWR, TK, 5/6-29 **Duluth** P. Backstrom, m.ob., 5/16 Lyon HK, 5/17 Polk AB, 5/17 Renville RG, 5/23 Brown BL.

Greater Yellowlegs
Early south 3/24 Olmsted PP, 3/28 Chippewa m.ob.; early north **3/22** Otter Tail SDM, 4/11 Duluth KE; late south 5/17 Lac Qui Parle RGJ, 5/24 Stearns NH; late north 5/13 Todd RJ, 5/24 St. Louis AB.

Lesser Yellowlegs
Early south 3/27 Steele AP, 4/5 Blue Earth JCF; early north 4/11 Douglas RG, RJ, 4/18 Clearwater AB, Wilkin GAM and Aitkin WN; late south 5/26 Stearns NH, 5/27 Hennepin SC; late north 5/29 St. Louis KR, 5/31 Aitkin SC.

Solitary Sandpiper
Early south 4/20 Goodhue BL, 4/21 Le Sueur EK; early north 4/20 Lake SW/MS, 4/25 Wilkin GAM; late south 5/19 Rice GS, 5/21 Hennepin SC; late north 5/17 Clay LCF, Aitkin WN and Lake SW/MS, 5/22 Cook EH.

Willet
All reports: 4/25 Lac Qui Parle AB, DB, OJ and Dakota BL, 5/1 Carlton GS, 5/2 Cottonwood RG, RJ, 5/7 Olmsted PP, 5/13 Duluth KE, 5/25 Goodhue AB and Waseca RG, 5/31 Aitkin SC.

Spotted Sandpiper
Early south 4/25 Chippewa AB, DB, OJ and Winona RJ, AP, 4/27 Wabasha WDM, 5/1 Sherburne DO and Yellow Medicine TT; early north **4/16** Clay LCF, 4/30 St. Louis AE, KE, 5/4 Marshall ANWR, 5/6 Becker BK.

Upland Sandpiper
Early south 4/25 Lac Qui Parle AB, DB, OJ, 4/27 Winona AP; early north **4/18** Wilkin GAM, 5/5 Duluth KE, 5/10 Red Lake RG.

Whimbrel
All reports: 5/15-24 Duluth (max. 33) m.ob., 5/16-31 Cook (max. 2) RJ, WP, 5/22 Thief River Falls, **Pennington** Co. KE.

LONG-BILLED CURLEW
5/19-22 Ely, St. Louis Co., m.ob.

Hudsonian Godwit
Early south 5/9 Nicollet JCF and Stearns NH, 5/10 Hennepin OJ; early north 5/9 Marshall TK, 5/10 Red Lake RG, RJ; late south 5/25 Goodhue AB and Dakota TT, 5/31 Hennepin SC; late north 5/30 Douglas RG, RJ, 5/31 Aitkin SC.

Marbled Godwit
Early south 4/11 Pope DO, 4/24 Lac Qui Parle RH, 4/26 Big Stone TBB; early north 4/13 Otter Tail SDM, 4/14 Wilkin GAM and Clay MMM, 4/18 Clearwater AB. Also reported 5/13-19 **Duluth** KE, 5/18 **Washington** RG and **Cook** WP, 5/21 **Ely,** St. Louis Co. SS.

Ruddy Turnstone
Early south 5/18 Winona AP, 5/19 Stearns NH; early north 5/14 Aitkin WN; late south 5/26 Stearns NH, 5/27 Hennepin SC; late north 5/21 Marshall ANWR, 5/30 St. Louis SC.

Red Knot
All reports: 5/19-24 Duluth (max. 14) m.ob. 5/22 **Pennington** (2) KE.

Sanderling
Early south **5/15** Olmsted JB, 5/18 Winona AP; early north 5/14 Duluth KE; late south 5/28 Pipestone JP, 5/30 Goodhue TT; late north 5/30 St. Louis SC.

Semipalmated Sandpiper
Early south 4/20 Cottonwood JB, 5/5 Freeborn RSE; early north 5/13 Marshall ANWR and Duluth KE; late south 5/30 Stearns AB, 5/31 Hennepin SC and Mower RRK; late north 5/17 Clearwater AB, 5/31 St. Louis NH.

Western Sandpiper
All reports: 5/9 Goodhue JD, 5/13 Marshall ANWR, 5/18 Olmsted RSE, 5/24-26 Stearns NH.

Least Sandpiper
Early south 4/19 Cottonwood JB, 4/25 Lac Qui Parle AB, DB, OJ, Anoka SC, GP and Winona RG, RJ, AP; early north 4/18 Wilkin GAM, 4/20 St. Louis MH/JS; late south 5/23 Hennepin AB, 5/26 Stearns NH; late north 5/17 Clearwater AB and Clay LCF, 5/24 St. Louis AB.

White-rumped Sandpiper
Early south 4/30 Lac Qui Parle SC, GP, 5/3 Winona AP; late south 5/29 Hennepin SC, 5/30 Stearns AB. All north reports: 5/15 Marshall ANWR and Carlton RG, 5/16 Duluth KR.

Baird's Sandpiper
Early south 4/21 Pipestone JP, 4/25 Lac Qui Parle AB, DB, OJ; late south 5/26 Washington TBB and Stearns NH, 5/30 Goodhue TT. All north reports: 5/2 and 5/16 Duluth KE, KR, 5/15 Carlton RG.

Pectoral Sandpiper
Early south 3/23 Wabasha KR, 3/27 Waseca AP; early north 4/18 Wilkin GAM, 4/20 St. Louis MH/JS; late south 5/26 Stearns NH, 5/31 Hennepin SC; late north 5/24 St. Louis AB, 5/30 Douglas RJ.

Dunlin
Early south 4/25 Lac Qui Parle AB, 5/2 Cottonwood RG, RJ; early north **4/24** Aitkin KR, 5/4 Wilkin GAM; late south 5/26 Stearns NH and Le Sueur EK, 5/27 Blue Earth JCF; late north 5/22 Lake MM, 5/24 St. Louis AB.

Stilt Sandpiper
Early south 4/25 Lac Qui Parle AB, OJ, 5/3 Olmsted AP; late south 5/22 Cottonwood LAF, 5/26 Stearns NH. All north reports: 5/3 Traverse GAM, 5/15-17 St. Louis KR.

Buff-breasted Sandpiper
5/8 Ely, St. Louis Co. SS; only report.

Short-billed Dowitcher
Early south **5/1** Steele AP and Lac Qui Parle TT, 5/9 Hennepin SC, Olmsted RSE, Nicollet JCF, Stearns NH and Anoka OJ; early north 5/11 Marshall ANWR, RG, RJ, 5/13 Duluth KE; late south 5/16 Freeborn NHo, 5/19 Stearns NH; late north 5/17 Clearwater AB, Clay LCF and St. Louis KR.

Long-billed Dowitcher
Early south 4/29 Winona AP, 5/2 Cottonwood RG, RJ; late south 5/15 Nicollet JCF, 5/20 Brown KR. No north reports.

Common Snipe
Early south 3/2 Hennepin TT, 3/21 Anoka SC, GP, 3/23 Wabasha KR; early north **3/20** Hubbard JL, 3/26 Clay MMM, 3/29 Aitkin WN.

American Woodcock
Early south 3/3 Pope DR, 3/7 Olmsted RSE, 3/8 Winona AP, 3/10 Brown JS; early north 3/21 St. Louis KB, 3/22 Clay LCF and Cook SOL, 3/24 Lake SW/MS.

Wilson's Phalarope
Early south 4/22 Washington RJ, 4/26 Chippewa GS, 4/29 Winona AP; early north 4/28 Kittson GS, 5/4 Wilkin GAM, 5/5 Marshall ANWR. Also reported 5/16 **Duluth** m.ob.

Red-necked Phalarope
All reports: **5/2** Waseca MF, **5/13** Marshall ANWR, 5/22 Cottonwood LAF, 5/23 Winona (2) AP, 5/23-26 Stearns NH.

LAUGHING GULL
5/7 Agassiz NWR, Marshall Co. (1 ad.) J. Mattson (**The Loon** 59:156), 5/19 Duluth (1 ad.) KE, SDM et al.

Franklin's Gull
Early south **3/7** Dakota RG, 4/10 Pipestone JP, 4/11 Lincoln AB, 4/12 Murray HK; early north 4/5 Marshall ANWR, 4/17 Wilkin SC anc Clay LCF, 4/29 Clearwater MM and Roseau GS.

Little Gull
All reports: 5/5-18 Duluth (2 ad.) KE, B. Penning, 5/19 Lake Osakis, **Todd Co.** NH.

COMMON BLACK-HEADED GULL
4/24 Heron Lake, Jackson Co. (1) AP.

Bonaparte's Gull
Early south **4/10** Goodhue BL, 4/11 Wright ES, 4/12 Murray HK; early north 4/19 Otter Tail SDM, 4/25 Duluth M. Hendrickson and Crow Wing KR, 4/26 Aitkin WN.

Ring-billed Gull
Reported from 15 north and 25 south counties.

Herring Gull
Reported from 15 north and 21 south counties.

Thayer's Gull
5/5-7 Duluth KE; only report.

Glaucous Gull
4/17 Duluth KE; only report.

Caspian Tern
Early south 5/16 Washington TBB, Ramsey RH and Lyon HK, 5/17 Stearns NH, 5/19 Hennepin SC, ES; early north 5/5 Duluth KE, 5/9 Clearwater RG and Beltrami RJ, 5/21 Marshall ANWR.

Common Tern
Early south 4/22 Olmsted JB, 5/2 Pipestone JP, 5/6 Hennepin SC, 5/7 Murray HK; early north **4/28** Beltrami TK, 4/30 Mahnomen BK, 5/3 Traverse GAM, 5/5 Duluth KE.

Forster's Tern
Early south 4/15 Hennepin SC, 4/18 Murray RJ, 4/19 Cottonwood JB, 4/20 Ramsey KB; early north 4/24 Marshall ANWR, 5/2 Duluth KE, 5/17 Clearwater AB.

Black Tern
Early south 5/1 Nicollet JCF and Lac Qui Parle TT, 5/2 Pipestone JP, 5/3 Stearns DO and Waseca GS; early north 5/7 Marshall

ANWR, 5/16 St. Louis AE, KE and Douglas PP, 5/17 Clay LCF and Clearwater AB.

Rock Dove
Reported from 12 north and 25 south counties.

Mourning Dove
Overwintered in south; early north 3/8 St. Louis TM, 3/22 Otter Tail SDM, 3/26 Norman BK.

Black-billed Cuckoo
Early south 5/7 Murray HK, 5/9 Pope DR, 5/11 Houston EMF, 5/14 Lac Qui Parle FE; early north 5/13 St. Louis AE, 5/17 Clay LCF, 5/20 Cass TK, 5/24 Otter Tail GAM.

Yellow-billed Cuckoo
All reports: 5/16 Olmsted PP, RSE, 5/16 Clearwater AB, 5/23 Dakota AB, 5/24 Hennepin OJ and Lyon BL, 5/29 Brown JS.

Eastern Screech-Owl
Reported from Fillmore, Lac Qui Parle, Murray, Hennepin, Olmsted, Rice, Steele and Winona.

Great Horned Owl
Reported from 15 north and 27 south counties.

Snowy Owl
All reports: 2/1-**4/17** Winona AP, m.ob., 3/2 Watonwan RG, 3/14 Aitkin RJ, WN, 3/30 Lyon HK, 4/13 Rice FS, **4/26** Faribault RG.

Northern Hawk-Owl
All reports: 3/4-18 Cook SOL; also nested in Roseau Co. (**The Loon** 59:165-174).

Burrowing Owl
5/23 Felton Prairie, Clay Co. KE; only report.

Barred Owl
Reported from seven north and 13 south counties.

Great Gray Owl
All reports: 3/7-5/31 Aitkin (max. 4) m.ob., 4/4-5/30 Lake (9 ind. at 8 loc.) SW/MS, m.ob.

Long-eared Owl
All reports: 3/5 Fillmore AP, 3/15 Faribault JCF, 4/2-12 Lake SW/MS, 4/23 St. Louis (found dead) AE, 4/28 Stearns (nesting) NH, 5/23 Itasca RG.

Short-eared Owl
Reported from nine north and four south counties. Early south **3/9** Olmsted RSE, 4/13 Ramsey KB, 4/16 Winona AP; early north **3/6** Clay MMM, 3/19 Roseau MC, 3/22 Wilkin (**20-30+**) SDM.

Boreal Owl
All reports: Mid-March Duluth (2 found dead) fide KE, 3/13-5/7 Cook m.ob., 3/17-5/15 Lake (12 locations) SW/MS; also nested in Roseau Co. (***The Loon*** 59:163-165).

Northern Saw-whet Owl
Reported from Aitkin, Cass, Clearwater, Cook, Fillmore, Houston, Hubbard, Itasca, Lake (45 locations) SW/MS, Le Sueur, St. Louis and Wadena counties.

Common Nighthawk
Early south 4/24 Washington TBB, 4/26 Hennepin SC and Houston KR, 5/9 Blue Earth MF and Mower JM; early north 5/13 Hubbard HJF and Aitkin WN, 5/15 Wadena AB, Wilkin GAM and Duluth fide KE.

Whip-poor-will
Early south 4/26 Houston EMF, 4/27 Winona FL, 4/28 Washington DS; early north 5/5 Lake SW/MS, 5/8 Cook SOL, 5/9 Polk RJ and Red Lake RG, RJ.

Chimney Swift
Early south 4/19 Watonwan LAF and Blue Earth MF, 4/20 Hennepin AB, SC, Dakota JD, Olmsted RSE and Anoka GP; early north **4/19** Otter Tail SDM, 4/30 Wilkin GAM, 5/2 Clearwater MM.

Ruby-throated Hummingbird
Early south 5/7 Houston EMF, 5/8 Pope DR, 5/9 Goodhue JD, 5/11 Olmsted PP; early north 5/9 Duluth, M. Hendrickson and Becker BK, 5/10 Koochiching GM and Aitkin WN, 5/11 Cook KMH.

Belted Kingfisher
Overwintered in the south; early north 3/22 Otter Tail SDM, 3/26 Clay LCF, 3/28 St. Louis AE.

Red-headed Woodpecker
Early north 5/4 Wadena DB, 5/6 Wilkin GAM, 5/14 Aitkin WN.

Red-bellied Woodpecker
Reported from **Duluth** and Aitkin in the north and from 27 south counties.

Yellow-bellied Sapsucker
Early south **3/21** Olmsted AP, 4/4 Mower RRK, 4/9 Hennepin ES and Dakota TT; early north 5/10 St. Louis AE, MH/JS, 5/11 Aitkin WN, 5/13 Cook KMH and Lake SW/MS.

Downy Woodpecker
Reported from 14 north and 28 south counties.

Hairy Woodpecker
Reported from 13 north and 28 south counties.

Three-toed Woodpecker
4/24 Lake SW/MS; only report.

Black-backed Woodpecker
4/4-5/13 reported from Clearwater, Cook Lake and St. Louis Counties.

Northern Flicker
Early south 3/3 Mower RRK and Olmsted PP, 3/5 Lyon HK, 3/6 Nicollet JCF; early north 3/22 Otter Tail SDM, 3/25 Duluth M. Hendrickson, 3/27 Mille Lacs AB and Clay LCF. Reported from 14 north and 31 south counties.

Pileated Woodpecker
Reported from 15 north and 26 south counties.

Olive-sided Flycatcher
Early south 5/2 Dakota TT, 5/3 Fillmore AB, 5/7 Hennepin SC; early north 5/13 St. Louis MH/JS, 5/14 Aitkin WN; late south 5/28 Hennepin SC and Wabasha AP, 5/30 Freeborn NHo and Mower JM.

Eastern Wood-Pewee
Early south **4/23** Olmsted RSE, 4/28 Dodge AP, 5/9 Winona JB, Brown TM; early north 5/17 Aitkin WN, 5/19 Clay LCF, 5/20 St. Louis AE.

Yellow-bellied Flycatcher
Early south 5/6 Olmsted RSE, 5/19 Hennepin GP; early north 5/16 Duluth KE, 5/25 Cook KMH; late south 5/26 Faribault KWB, 5/28 Hennepin SC.

Acadian Flycatcher
5/23-25 Murphy Hanrahan Pk. Scott Co. m.ob.; 5/28-30-31 Goodhue m.ob.

Alder Flycatcher
Early south 5/18 Hennepin SC and 5/18 Brown JS; early north 5/16 Duluth fide KE, 5/23 Lake of the Woods RG; late south 5/30 Goodhue TT.

Willow Flycatcher
Early south 5/10 Houston EMF, 5/12 Mower RRK; only north reports 5/17 Clearwater AB, 5/24 Clay LCF.

Least Flycatcher
Early south 4/30 Houston EMF, 5/2 Lac Qui Parle TM, Brown JS, Dakota TT, 5/3 Olmsted AB, Anoka SC; early north 5/6 St. Louis AE, 5/9 Koochiching RJ.

Eastern Phoebe
Early south 3/20 Nicollet JCF, 3/21 Anoka SC, GP, Mower RRK, Carver TM; early north 4/4 Aitkin SC, 4/8 Becker BK, Itasca TS, 4/9 St. Louis AE, Cass TK.

Great Crested Flycatcher
Early south 5/3 Olmsted AB, 5/5 Rice BDC, Ramsey RH, Mower RRK; early north 5/12 Norman RJ and Duluth KE, 5/13 Wadena DB, 5/14 St. Louis MH/JS, Wilkin GAM, Marshall ANWR, Hubbard HJF.

Western Kingbird
Early south 5/7 Sherburne DO, 5/8 Murray ND, 5/10 Faribault KWB; early north 5/13 Hubbard RJ and Marshall ANWR, 5/16 Wilkin GAM, 5/18 Clay LCF.

Eastern Kingbird
Early south 4/27 Houston EMF, 4/28 Washington DS, 4/29 Olmsted JB and Winona AP; early north 5/8 Marshall ANWR, 5/9 Koochiching RJ, 5/10 Aitkin WN.

SCISSOR-TAILED FLYCATCHER
5/5 Grand Marais, Cook, S.&B. Muehlberg.

Horned Lark
Early north 3/1 Beltrami TK and Clay MMM, 3/2 Norman BK; nine north and 26 south counties.

Purple Martin
Early south 4/7 Murray ND and Wabasha WDM, 4/8 Olmsted RSE, 4/11 Lincoln AB and Hennepin SC, GP; early north 4/9 Otter Tail SDM, 4/17 Pine RG, 4/18 Duluth KE.

Tree Swallow
Early south 3/12 Mower RRK, 3/21 Olmsted RSE, 3/22 Goodhue DZ, Hennepin and Dakota TT and Washington DS; early north 4/5 Aitkin SC, 4/11 Grant RJ, Duluth KE, Aitkin, WN, DB, 4/12 Beltrami TK.

Northern Rough-winged Swallow
Early south 4/17 Houston FL, 4/18 Brown JS and Olmsted RSE, 4/19 Big Stone KB; early north **4/16** Wilkin GAM, 4/26 Clay LCF and Duluth KE, 4/30 Clearwater MM.

Bank Swallow
Early south 4/17 Ramsey TT, 4/18 Olmsted RSE, 4/20 Wright DO; early north 4/20 Marshall ANWR, 4/30 Duluth KE, 5/1 Carlton GS.

Cliff Swallow
Early south 4/16 Ramsey RH, 4/21 Hennepin ES, SC and Olmsted PP, 4/24 Chippewa OJ, AB; early north **4/22** St. Louis MH/JS, 4/28 Cass TK.

Barn Swallow
Early south 4/13 Wright DO, 4/16 Rock ND, 4/17 Faribault KWB; early north **4/9** Morrison AB, 4/17 Pine RG, 4/18 Wilkin SC.

Gray Jay
Reported from eight north counties and through 4/10 **Wright**, fide AB.

Blue Jay
Reported from 15 north and 29 south counties.

Black-billed Magpie
Nine reports from Aitkin, Beltrami, Marshall, Norman, Pennington, Red Lake and Roseau Counties.

American Crow
Reported from 17 north and 31 south counties.

Common Raven
Reported from ten north counties and **Chisago** 3/3 KE, 4/3 AP, 5/4 **Anoka** RG.

Black-capped Chickadee
Reported from 14 north and 28 south counties.

Boreal Chickadee
Reported from seven north counties with a peak of 20 on 4/4 Aitkin WN.

Tufted Titmouse
3/1, 3/8, 5/31 Houston AP, EMF, 3/27-4/18 Washington DS, 5/2 Fillmore AP.

Red-breasted Nuthatch
Reported from nine north and 16 south counties.

White-breasted Nuthatch
Reported from 12 north and 29 south counties.

Brown Creeper
Reported from eight north counties; late south 5/23 Scott AB, 5/24 Chisago DZ.

ROCK WREN
4/19,20 Eagan, Dakota Co. TT (**The Loon** 59:156)

House Wren
Early south **3/25** Murray ND, 4/17 Houston FL, Ramsey RH, Anoka GP; early north 4/22 Wilkin GAM, 4/25 Otter Tail SDM.

Winter Wren
Early south 3/20 Mower RRK, 3/21 Hennepin TT, 3/22 AB, 3/24 Olmsted PP and Brown JS; early north 4/10 Cook KMH, 4/11 St. Louis MH/JS, SS, 4/13 Lake SW/MS; late south 5/24 Dakota SC, Scott TT.

Sedge Wren
Early south 4/26 Ramsey KB and Dakota TT, 5/2 Watonwan RJ, Olmsted JB, Stearns NH, Waseca RSE; early north **5/4** Marshall ANWR, 5/8 St. Louis SS, 5/10 Aitkin WN.

Marsh Wren
Early south 4/26 Lac Qui Parle KE, 5/2

Mower JM, 5/5 Freeborn RSE; all north reports: 5/11-14 Marshall RJ, ANWR, 5/16 St. Louis KR, 5/17 Clearwater AB and Clay LCF.

Golden-crowned Kinglet
Early north 3/20 Cook EH and Hubbard JL, 3/21 Clay LCF, 3/24 Duluth fide KE; late south 4/24 Ramsey KB and Dodge AP, 4/25 Anoka JH.

Ruby-crowned Kinglet
Early south **3/7** Pope DR, 3/24 Hennepin RH; early north 3/22 Clay LCF, 3/24 Beltrami KH, 4/10 Otter Tail SDM; late south 5/23 Anoka JH.

Blue-gray Gnatcatcher
Early south 4/19 Mower RRK, 4/21 Hennepin GS, 4/23 Houston EMF. Reported from 16 other south counties including **Lac Qui Parle** and **Pipestone.**

Eastern Bluebird
Reported from 15 north and 32 south counties. Early north 3/22 Clay LCF, 3/23 Duluth fide KE, 3/28 Mille Lacs AB, DB. One pair with downy nestings on **May 19,** Lac Qui Parle Co.

Townsend's Solitaire
All reports: 3/22 Blue Earth RJ, RG, 3/31 Dakota RG.

Veery
Early south 4/20 Dakota JD, 4/24 Olmsted RSE, 5/4 Ramsey KB; early north 5/1 St. Louis MH/JS, 5/9 Pine RJ.

Gray-cheeked Thrush
Early south 4/16 Le Sueur EK, 5/3 Waseca SDM, 5/8 Brown JS, 5/9 Scott AB, Rice FS; late south 5/22 Brown JS, 5/26 Anoka JH.

Swainson's Thrush
Early south 4/15 Stearns NH, 4/18 Hennepin TM, 4/20 Murray ND; early north 4/18 Norman BK, 5/1 Clay LCF, 5/6 Duluth, M. Hendrickson and Wilkin GAM; late south 5/27 Ramsey DZ, 5/29 Hennepin ES.

Hermit Thrush
Early south 3/24 Stearns NH, 3/27 Hennepin TT, 3/28 Cottonwod LAF, Yellow Medicine RJ and Anoka DZ; early north **3/28** Clay LCF, 4/2 Roseau GS, 4/13 Cook KMH; late south 5/3 Hennepin AB, 5/11 Wabasha PP.

Wood Thrush
Early south 5/5 Washington DS, 5/6 Ramsey KB, 5/8 Olmsted RSE, 5/9 Winona JB, RSE; early north 5/2 Clearwater MM, 5/16 Duluth KE.

American Robin
Reported from 16 north and 29 south counties. Many 3/1 dates both north and south.

Varied Thrush
3/20 Rice, M. Neseth.

Gray Catbird
Early south 4/27 Sherburne DO, 5/1 Cottonwood LAF, 5/2 Stearns NH and Olmsted PP; early north 5/10 Becker BK, 5/14 Beltrami TK, Duluth KE, Marshall ANWR, St. Louis AE, 5/15 Wadena AB.

Northern Mockingbird
All reports: 4/26 Cottonwood LAF, 5/10 Faribault KWB, 5/11 Marshall AP, 5/14 St. Louis KE, 5/22 Polk KE and Clay LCF, 5/24 Redwood KE.

SAGE THRASHER
5/14 Cook KMH and m.ob. (**The Loon** 59:150-151).

Brown Thrasher
Early south 4/11 Chippewa RGJ, 4/16 Houston EMF, 4/18 Olmsted JB; early north **4/12** Duluth D. Keinholz, 4/24 Beltrami TK, 4/26 Clay MMM.

Water Pipit
Early south 3/29 Blue Earth MF, 4/18 Lac Qui Parle KB; early north 5/7 Marshall ANWR, 5/10 Red Lake RJ, 5/12 Duluth KE; late north 5/24 Duluth AB.

Bohemian Waxwing
Late south 4/1 Hennepin AB (20) and Dakota JD, 4/10 Olmsted AP; late north 4/4 Clay LCF, 4/9 Cook KMH.

Cedar Waxwing
Reported from nine north and 20 south counties with the biggest movement 5/16-5/30.

Northern Shrike
Late south 3/27 Dakota TT, 3/29 Chippewa KE, 4/4 Pope DR; late north 4/4 Otter Tail SDM, 4/8 Aitkin WN.

Loggerhead Shirke
Early south 3/10 Houston AP, 3/12 Dakota and Goodhue JD, 3/13 Ramsey RG, 3/15 Scott AB; early north 3/29 Clay LCF, 5/3 Traverse GAM, 5/11 Cook WP.

European Starling
Reported from 13 north and 28 south counties.

WHITE-EYED VIREO
5/8 Bixby WMA, Steele Co. RG, 5/17 Flandrau SP, Brown Co. JS.

Bell's Vireo
5/23,25,27 Black Dog Lake, Dakota Co. m.ob.; 5/15 Wabasha WDM.

Solitary Vireo
Early south 4/26 Mower JM, 5/2 Blue Earth RJ, Anoka SC and Washington DZ 5/6 Olmsted JB; early north 5/7 Duluth fide KE, 5/8 Lake SW/MS, 5/9 Cook KMH; late south 5/22 Brown JS, 5/23 Hennepin DB.

Yellow-throated Vireo
Early south 5/7 Houston EMF, 5/9 Scott AB, Lac Qui Parle FE and Brown JS, 5/10 Ramsey KB and Goodhue BDC, DZ; early north **5/7** Wadena DB, 5/13 Becker RJ, 5/16 Douglas PP and Clay LCF.

Warbling Vireo
Early south **4/24-25** Olmsted RSE, JB, 5/1 Waseca RJ, AP, 5/2 Lyon HK and Hennepin TT; early north 5/6 Wilkin GAM, 5/8 Duluth KE, 5/9 Itasca TS.

Philadelphia Vireo
Early south 5/11 Washington DS, 5/15 Olmsted JB; early north 5/13 Wilkin GAM, Todd RJ and Duluth M. Hendrickson, 5/14 St. Louis AE, 5/16 Clearwater AB; late south 5/19 Hennepin SC, GP.

Red-eyed Vireo
Early south 5/3 Lac Qui Parle TM, 5/6 Ramsey KB, 5/7 Houston EMF, Stearns NH and Olmsted PP; early north 5/6 St. Louis SS, 5/10 Wadena DB, 5/11 Cass TK and Marshall ANWR.

Blue-winged Warbler
Early south **4/25 Lac Qui Parle** OJ, 4/30 Houston EMF, 5/2 Fillmore AP.

Golden-winged Warbler
Early south 5/1 Brown JS, 5/5 Hennepin SC, 5/6 Houston EMF; early north 5/9 Duluth, P. Backstrom, 5/10 Aitkin WN, 5/13 Becker RJ.

Tennessee Warbler
Early south **4/25** Wabasha WDM, 4/29 Dakota JD and Olmsted RSE, 5/1 Lyon HK; early north **5/2** Wilkin GAM, **5/5** Marshall ANWR and St. Louis AE, **5/6** Lake SW/MS; late north 5/31 Lake TM, 5/24 Clay LCF; late south 5/26 Hennepin SC, 5/27 Washington WL.

Orange-crowned Warbler
Early south 4/22 Anoka GP and Brown JS, 4/24 Hennepin DB, 4/25 Nicollet JCF, Goodhue BL and Lac Qui Parle RH; early north 4/25 Clay LCF, 5/11 Pennington RJ, Marshall ANWR; late north 5/20 Clay LCF; late south 5/19 Lyon HK.

Nashville Warbler
Early south **4/25** Hennepin DZ, 4/26 Houston KR, 4/27 Ramsey KB; early north **4/24** Itasca TS, **5/1** Clearwater MM, 5/5 Lake SW/MS, and St. Louis KE, AE; late south 5/21 Hennepin DB, 5/26 Meeker TM.

Northern Parula
Early south 5/5 Hennepin SC, 5/8 Anoka, 5/9 Brown JS; early north **5/4** St. Louis SS, 5/6 Cook KMH, 5/13 Becker RJ; late south 5/23 Scott AB, Winona AP.

Yellow Warbler
Early south 4/25 Winona RJ, AP and Hennepin TT, 4/26 Waseca AB, Ramsey KB and Houston KR; early north 5/1 Wilkin GAM, 5/7 Becker BK and Duluth KE, 5/9 Itasca TS and Aitkin WN.

Chestnut-sided Warbler
Early south 5/5 Hennepin KR, 5/7 Dakota TT, 5/9 Mower JM, Brown JS; early north 5/6 Marshall ANWR, 5/7 St. Louis AE.

Magnolia Warbler

Early south 5/9 Brown JS, 5/10 Ramsey KB, 5/13 Hennepin BDC; early north 5/11 Cook KMH, WP, 5/12 Duluth KE, 5/13 Lake SW/MS; late south 5/22 Mower RRK, 5/23 Lyon HK and Brown JS.

Cape May Warbler

Early south **4/26** Hennepin B. Stachowiak — (earliest date on record). Early north 5/10 Red Lake RJ, RG and Lake SS, 5/13 Cook KMH, 5/14 Marshall ANWR; late south 5/31 Goodhue DS.

Black-throated Blue Warbler

All reports: 5/19 Washington DS, 5/23 Lake MM, 5/25 Lake SW/MS, 5/28 Duluth, M. Hendrickson, 5/30,31 Lake m.ob., 5/31 Cook KMH, EH.

Yellow-rumped Warbler

Early south **3/28** Washington TBB and Wabasha WDM, 4/9 Hennepin ES, SC, 4/11 Dakota TT; early north 4/8 Cook EH, 4/15 Duluth fide KE, 4/19 Clearwater AB; late south 5/23 Wabasha WDM.

Black-throated Green Warbler

Early south 4/26 Houston KR, 4/28 Ramsey KB, 4/30 Hennepin DB; early north 5/8 St. Louis CO, 5/9 Lake SW/MS, 5/11 Cook KMH, Cass TK.

Blackburnian Warbler

Early south 5/7 Olmsted JB, 5/10 Goodhue DZ; early north 5/1 St. Louis KB, 5/10 Lake SS, 5/11 Cook KMH; late south 5/22 Ramsey KB, 5/23 Scott AB.

YELLOW-THROATED WARBLER

5/24-31 Frontenac, Goodhue Co. R. & T. Field et al. (**The Loon** 59:156).

Pine Warbler

Early south 4/26 Dakota TT, 4/29 Freeborn NHo and Winona AP; early north 4/25 Wilkin GAM, 4/26 Aitkin WN, 4/29 Clearwater MM; late south 5/12 Ramsey RH.

Palm Warbler

Early south 4/20 Ramsey KB, 4/24 Dakota TT, 4/25 Houston m.ob. and Anoka GP, SC; early north **4/25** Crow Wing KR and Clay LCF, 4/26 Aitkin WN, 4/30 Itasca GS; late south 5/19 Anoka JH, 5/25 Murray ND; late north 5/25 Duluth AB.

Bay-breasted Warbler

Early north 5/14 Marshall ANWR, 5/16 Cook KMH; late north 5/30 St. Louis MH/JS and Lake 5/30,31 m.ob.; only south report: 5/17 Brown JS.

Blackpoll Warbler

Early south 5/2 Pipestone JP, 5/8 Ramsey SC, 5/9 Lac Qui Parle FE and Brown JS; early north 5/14 Marshall ANWR; late south 5/23 AB; late north 5/22 Cook WP, 5/24 Clay LCF.

Cerulean Warbler

Early south 5/9 Winona JB, RSE, 5/10 Ramsey KB and Goodhue TBB, 5/12 LeSueur GS, 5/14 Nicollet MF, MT, only report north 5/29 Mille Lacs SC.

Black-and-white Warbler

Early south 5/1 Anoka SC and Brown JS, 5/2 Blue Earth RJ, Dakota JD, Mower RRK, JM, and Murray ND; early north 5/5 Cook KMH, St. Louis AE and Wilkin GAM, 5/6 Lake SW/MS, 5/8 St. Louis SS.

American Redstart

Early south 5/7 Olmsted PP, 5/8 Washington TH, 5/9 Brown JS, Dakota JD, LeSueur MT and MF, Scott AB, and Winona JB and RSE; early north 5/7 Duluth fide KE, 5/9 Lake fide SW/MS, 5/11 Marshall ANWR and Pennington RJ, 5/14 Becker BK.

Prothonotary Warbler

Early south 5/8 Ramsey SC, 5/10 Brown JS, 5/14 Winona RG.

Ovenbird

Early south 4/25 Stearns NH, 5/1 Murray ND, 5/2 Brown JS and Washington DZ; Early north 5/4 St. Louis AE, 5/7 Cass TK, 5/9 Pine RJ and Wadena DB.

Northern Waterthrush

Early south 4/22 Hennepin TT, 4/30 Houston KR and Lac Qui Parle SC, 5/2 Hennepin DB, Mower RRK, Pipestone JP and Washington DZ; early north 5/8 Cook KMH, 5/9 Koochiching RJ, 5/12 St. Louis MH/JS; late south 5/20 Houston EMF and LeSueur EK, 5/22 Brown JS, 5/24 Winona AP.

Louisiana Waterthrush
Early south 5/3 Houston FL, 5/10 Olmsted RSE, 5/24 Chisago and Washington DZ.

Connecticut Warbler
Early south 5/5 Washington TBB, 5/10 Olmsted RSE, 5/18 Brown JS and Ramsey KB; early north 5/16 Duluth KE, 5/17 Lake SW/MS, 5/18 Clay LCF; late south 5/25 Goodhue ES, 5/28 Hennepin ES.

Mourning Warbler
Early south 5/16 Lyon HK and Scott TT, DZ, 5/17 Brown JS, 5/18 Hennepin SC; early north 5/12 Cook KMH, 5/16 Duluth KE, 5/17 Wadena DB; late south 5/21 Brown JS and Pipestone JP, 5/23 Scott AB, 5/25 Scott DB.

Common Yellowthroat
Early south 5/5 Hennepin SC, KR, 5/6 Ramsey KB, 5/7 Dakota TT; early north 5/14 Aitkin WN, Marshall ANWR, St. Louis KE and Wadena DB, 5/15 Beltrami TK, St. Louis AE and Wadena AB, 5/16 Douglas TM.

Hooded Warbler
All reports: 5/12-17 Murphy-Hanrehan Park, Scott TT, AB. 5/27 Houston EMF.

Wilson's Warbler
Early south 5/9 Murray ND, 5/11 Mower RRK and Olmsted RSE, 5/12 Hennepin SC, ES, Houston EMF, Freeborn NHo; early north 5/9 Otter Tail SDM, 5/14 Marshall ANWR, 5/16 Duluth fide KE and KR; late south 5/23 Brown JS, 5/24 Winona TM and AP, 5/26 Hennepin SC.

Canada Warbler
Early south 5/11 Mower RRK, 5/16 Hennepin OJ, 5/17 Brown JS and Rice GS; early north 5/16 St. Louis AE, 5/18 Clay LCF, 5/21 St. Louis KE and SDM; late south 5/23 AB, 5/24 Hennepin DB, 5/26 Hennepin SC.

Yellow-breasted Chat
Four reports all from Black Dog Lake, Dakota County 5/23-31 m.ob.

Scarlet Tanager
Early south 5/2 Mower JM, 5/8 Brown JS and Hennepin ES, 5/9 Scott AB and Ramsey KB; early north 5/12 Norman RJ, 5/14 Wadena DB, 5/16 Clearwater AB and St. Louis fide KE.

Northern Cardinal
Two reports north 3/7 Aitkin WN and 5/16 St. Louis AE. Reported from 23 counties south.

Rose-breasted Grosbeak
Early south 4/23 Fillmore AP, 4/27 Houston EMF, 5/1 Washington TBB; early north 5/9 St. Louis AE, 5/10 Aitkin WN, St. Louis MH/JS and Norman BK, 5/13 Marshall ANWR.

Blue Grosbeak
All reports 5/21 Nobles ND, 5/24 Murray ND, 5/27-30 Pipestone ND, JP, 5/29 Rock ND.

Indigo Bunting
Early south 5/8 Mower JM, 5/9 LeSueur MF and MT, Scott AB, Winona JB and RSE, 5/10 Dakota TT, Goodhue DZ, Houston EMF and Ramsey KB; early north 5/13 Becker RG, and Duluth KE, 5/17 Aitkin WN, 5/19 Clay LCF.

Dickcissel
Early south 5/12 Washington TBB, 5/16 Murray ND and Pipestone JP, 5/17 Cottonwood RG, Mower RRK and Olmsted RSE.

Rufous-sided Towhee
Early south **3/27** Olmsted AP, 4/18 Houston EMF, 4/25 Anoka JH and Ramsey KB; early north 5/11 Marshall RJ, 5/18 Duluth fide KE.

American Tree Sparrow
Late south 4/17 Anoka JH and Washington TBB, 4/18 Hennepin DZ, 4/25 Cottonwood LAF; late north 4/11 Douglas RJ, 4/12 Clay LCF, 4/13 Marshall ANWR.

Chipping Sparrow
Early south 3/26 Rock ND, 3/29 Lyon HK, 4/5 Benton DO; early north **4/4** Aitkin WN, 4/19 Marshall ANWR and Otter Tail SDM.

Clay-colored Sparrow
Early south 4/25 Kandiyohi TM, Lac Qui Parle AB, DB, OJ, Pope DR, 4/26 Washington TBB, 4/27 Chippewa RGJ; early north 5/2 Beltrami TK, Crow Wing WN, 5/4 St. Louis KE, 5/5 St. Louis AE, 5/17 Clay LCF and Clearwater AB.

Field Sparrow
Early south 3/27 Dakota TT, 4/4 Mower

JM and Ramsey DZ, 4/6 Wabasha AP; early north 4/25 Otter Tail SDM, 4/26 Becker BK.

Vesper Sparrow
Early south **3/21** Carver TM, 3/28 Dakota TT, 4/3 Mower AP and Sherburne DO; early north 4/12 Clay LCF, 4/17 Beltrami TK and Wadena AB, 4/23 Wilkin GAM.

Lark Sparrow
Early south 4/19 Anoka SC, GP, 4/24 Dakota JD, 4/28 Wabasha RJE; early north **4/13 Cook** EH, 5/10 Red Lake RG, RJ, 5/15 **Duluth** fide KE.

Lark Bunting
One report 5/15 **Blue Earth** MF.

Savannah Sparrow
Early south 3/26 Murray ND, 4/7 Olmsted RSE 4/14 Lyon HK; early north 4/17 Wilkin SC, 4/18 Duluth fide KE, 4/24 Aitkin KR.

Grasshopper Sparrow
Early south 4/20 Olmsted JB, 4/23 Isanti OJ, 4/24 Murray MD; one report north 5/13 Hubbard RG, RJ.

Henslow's Sparrow
One report 5/24 O.L. Kipp State Park, Winona TM.

LeConte's Sparrow
Early south **3/22** (earliest date on record) Blue Earth RG and RJ, 4/26 Lac Qui Parle KE, 5/1 Lac Qui Parle TT; early north **4/18** Wilkin SC, 5/5 Marshall ANWR, 5/6 Duluth KE.

Fox Sparrow
Early south 3/7 Mower RRK, 3/11 Olmsted PP, 3/16 Brown JS; early north **3/21** Aitkin WN and Duluth fide KE; late south 4/18 Murray RJ, 4/19 Hennepin SC, 4/29 Stearns NH; late north 4/12 Clay LCF, 4/14 Cook KMH and Hubbard HJF, 4/18 Aitkin WN.

Song Sparrow
Early north **3/22** Otter Tail SDM, 3/23 Mille Lacs AB, 3/24 Aitkin WN and Clay LCF.

Lincoln's Sparrow
Early south **3/29** Lyon HK, 4/22 Cottonwood LAF, 4/24 Mower JM and Olmsted RSE; early north 4/20 Clay LCF, 4/27 Otter Tail SDM, 5/1 Wilkin GAM.

Swamp Sparrow
Early south **3/22** Hennepin TT, 3/24 Hennepin RH, 3/27 Mower RRK; early north **3/22** Otter Tail SDM, **4/5** Wilkin GAM, **4/7** Marshall ANWR.

White-throated Sparrow
Early south 3/17 Blue Earth JCF, 3/21 Scott RH, 3/31 Hennepin DB; early north 4/10 St. Louis MH/JS, 4/13 Aitkin WN, 4/19 Lake SW/MS, St. Louis fide KE; late south 5/14 Brown JS, 5/15 Freeborn NHo and Houston EMF, 5/23 Hennepin ES.

GOLDEN-CROWNED SPARROW
4/24 Chippewa RGJ (**The Loon** 59:102).

White-crowned Sparrow
Early south **3/28** Hennepin SC, 3/29 Olmsted JB, 3/30 Blue Earth MR; early north 4/14 St. Louis MH/JS, 4/28 St. Louis KE, 5/1 Wilkin GAM; late south 5/17 Faribault KWB, 5/23 Hennepin ES, 5/26 Murray ND; late north 5/20 Clay LCF, 5/22 St. Louis SW/MS, 5/25 Duluth AB.

Harris' Sparrow
Early south 4/25 Lac Qui Parle AB, DB, FE, OJ, 5/2 Houston EMF, Lac Qui Parle TM, Murray ND, Pipestone JP, 5/6 LeSueur HJC; early north 5/1 Otter Tail SDM, 5/7 Duluth fide KE; late south 5/11 Hennepin KR, Mower RRK, 5/12 Brown JS, Freeborn NHo, Olmsted RSE, Mower JM, Waseca GS, 5/20 Hennepin ES; late north 5/16 Beltrami TK and Clay LCF.

Dark-eyed Junco
Late south 5/3 Fillmore AB, 5/4 Anoka GP, 5/9 Winona JB, RSE.,

Lapland Longspur
Early north 3/7 Aitkin SC, 4/18 Wilkin SC; late south 4/25 Lac Qui Parle AB, DB, RH, OJ, 4/26 Lac Qui Parle TBB, 4/27 Traverse GS; late north 5/17 Cook KMH and St. Louis MH/JS, KR, 5/22 Cass WP, 5/28 Lake SW/MS.

Chestnut-collared Longspur
All reports: 4/24 Felton Prairie, Clay Co. MF, 5/24 Miller Prairie West, **Traverse** KE, 5/30 Clay TK.

Snow Bunting
Late south 3/22 Watonwan RJ, 4/22 Blue Earth JCF; late north 4/26 Cook WP, 4/30 Cook KMH, Lake SW/MS, 5/3 Aitkin WN.

Bobolink
Early south 5/2 Mower JM, 5/3 Houston FL, 5/5 Freeborn RJE; early north 5/8 Duluth fide KE, 5/10 Aitkin WN, Clearwater RJ, Norman BK.

Red-winged Blackbird
Overwintered in Aitkin and Lake Counties. Early north 3/5 Wilkin GAM, 3/6 Marshall ANWR and Mille Lacs SC, 3/7 Otter Tail SDM, St. Louis fide KE.

Eastern Meadowlark
Early north 3/24 Aitkin WN, 4/3 Beltrami TK and Cook SOL, 4/9 St. Louis KE.

Western Meadowlark
Early north **3/1** Otter Tail SDM, 3/11 Marshall ANWR, 3/13 Norman BK.

Yellow-headed Blackbird
Early south 4/11 Lincoln AB and Stevens DO, 4/24 Jackson AP; early north, 4/18 Otter Tail SC, 4/19 Marshall ANWR.

Henslow's Sparrow
One report 5/24 O.L. Kipp State Park, Winona TM.

Rusty Blackbird
Early south **3/2** Dakota TT, **3/5** Wabasha KR, 3/6 Brown JS and Ramsey KB; early north **3/7** Otter Tail SDM, 3/24 Cook SOL, 3/27 Cook EH; late south 4/5 Anoka JH, Dakota DZ, 4/11 Anoka SC and Lincoln AB, 4/14 Ramsey KB; late north 4/11 Cook KMH and Douglas RJ, 4/13 Marshall ANWR, 5/1 Wilkin GAM.

Brewer's Blackbird
Early south **3/6** Olmsted JB, **3/8** Winona AP, 3/12 Washington DS; early north 4/3 St. Louis MH/JS, 4/12 Clay LCF.

Common Grackle
Overwintered in Aitkin and Lake Counties. Early north 3/7 Otter Tail SDM and Duluth fide KE, 3/8 Mille Lacs SC, 3/13 Norman BK.

Brown-headed Cowbird
Early south **3/6** Brown JS, **3/8** Cottonwood RJ and Yellow Medicine KE, 3/10 Houston AP, Murray ND; early north 4/7 Duluth KE, 4/11 Cook KMH, 4/17 Wadena AB.

Orchard Oriole
Early south 5/6 Houston EMF, 5/9 Brown JS, 5/10 Washington AB; early north **5/14** Wilkin GAM, 5/27 **Duluth** KE, 5/30 Grant RJ.

Northern Oriole
Early south 5/2 Hennepin TT, Houston EMF, Wabasha WDM, 5/3 Brown JS, Chippewa RGJ, Fillmore AB, Goodhue DZ, Houston FL, Mower RRK, 5/4 Olmsted JB, Washington WL, Winona AP; early north 5/6 Becker BK, Wadena DB, Wilkin GAM, 5/9 Aitkin WN, Itasca TS, St. Louis AE, 5/13 Marshall ANWR.

Pine Grosbeak
Late south 3/21 Washington WL; late north 3/12 St. Louis SS, 3/14 Cook KMH.

Purple Finch
Reported from 14 counties north and 22 counties south.

HOUSE FINCH
3/1 Hennepin SC, 4/22 **Olmsted** JB, RSE.

Red Crossbill
All reports 3/3-10 Anoka ES, 3/19 Lake SW/MS, 4/1 and 5/28 Dakota JD, 4/16 Anoka SC, 5/11 Beltrami DZ.

Common Redpoll
Two reports south 3/30 Ramsey KB, 4/20 Pipestone JP; late north 4/12 Aitkin WN, 4/22 Wilkin GAM, 5/3 St. Louis SS.

Hoary Redpoll
All reports: 3/2, 3/10 and 4/7 St. Louis KE, MH/JS, 3/7-17 Aitkin WN, 4/3 Clay LCF.

Pine Siskin
Reported from 15 counties north and 21 counties south.

American Goldfinch
Reported from 13 counties north and 28 counties south.

Evening Grosbeak

Three reports south: 3/1 Hennepin KR, 3/28 Anoka DZ, 3/31 Brown JS. Reported from 12 counties north.

House Sparrow

Reported from 37 counties through-out state.

Correction

Volume 59, Summer 1987, page 91 under White-crowned Sparrow should read as follows: Early south 9/6 Washington DS, 9/13 Anoka SC, 9/21 Dakota TT; late north same as printed.

CONTRIBUTORS

ANWR	Agassiz NWR
KB	Karl Bardon
TBB	Tom & Bette Bell
KWB	Ken & Wilma Bird
AB	Al Bolduc
DB	Don Bolduc
JB	Jerry Bonkoski
DBC	Betty & Doug Campbell
SC	Steve Carlson
HJC	Horace & John Chamberlain
MC	Matt Cole
ND	Nelvina DeKam
JD	Joanne Dempsey
KE	Kim Eckert
FE	Fred Eckhardt
RSE	Bob & Steve Ekblad
AE	Audrey Evers
LCF	Laurence & Carol Falk
LAF	Mrs. Loren Feil
JHF	Herbert & Jeanette Fisher
EMF	Eugene & Marilyn Ford
JCF	John C. Frentz
MF	Merrill Frydendall
RG	Ray Glassel
EH	Ellen Hawkins
KH	Katie Haws
MH/JS	Marshall Helmberger/Jodi Summit
NH	Nestor Hiemenz
KMN	Ken & Molly Hoffman
RH	Robert Holtz
NHo	Nancy Holway
JH	James L. Howitz
RJ	Robert Janssen
OJ	Oscar Johnson
RGJ	Roger & Gretchen Johnson
BK	Byron Kinkade
RRK	Ron & Rose Kneeskern
TK	Tom Kogut
EK	Erlys Krueger
HK	Henry Kyllingstad
JL	Jean Leckner
FL	Fred Lesher
BL	Bill Litkey
WL	William Longley
SOL	Sandy & Orvis Lunke
WDM	Wynn & Don Mahle
GM	Grace Marquardt
GAM	Gordon & Artis Martinson
MM	Monte Mason
JM	John Morrison
TM	Thomas McMullen
SDM	Steve & Diane Millard
MMM	Mark & Mary Moore
WN	Warren Nelson
CO	Carol Oleson
DO	Dan Orr
JP	Johanna Pals
PP	Paul Pedersen
GP	Greg Pietila
AP	Anne Marie Plunkett
WP	Walter Popp
DR	Don Rakstad
KR	Kim Risen
SS	Steven Schon
GS	Gary Simonson
TS	Thomas Sobolik
DS	Dave Sovereign
JS	Jack Sprenger
ES	Evelyn Stanley
FS	Forest Strnad
MT	Mark Tacke
TT	Thomas Tustison
SW/MS	Steve Wilson/Mary Shedd
DZ	Dave Zumeta

Many Observers (m.ob.)

BOOK REVIEWS

THE LOVELY AND THE WILD, by Louise De Kiriline Lawrence, with drawings by Glen Loates, Published by Natural Heritage/Natural History Inc., Toronto, Ontario, 1987, 242 pages, $12.95.

This soft cover edition is a re-release of the writings of a well-known nature writer that is enhanced by the lovely sketches of Glen Loates, one of the North America's premier wildlife artists. The writing, however, stands alone; Mrs. Lawrence's writing is not out of tune in the 1980's. (She is now in her nineties, and still resides in Northern Ontario - the setting for her observations of the many birds and animals whose behaviour she details in *The Lovely and the Wild.*). In that she kept accurate and daily logs of bird life on the Mattawa River, she contributes greatly to our knowledge of much that is the stuff of which daily life is comprised — finding shelter, feeding, handling enemies, courtship, nesting and raising a family. Her language is lovely to read; she integrates the telling of her life with the lives of all that surrounds her in evocative and picturesque prose, and offers her opinions about the role/relationship of man to his natural environment. The book is definitely worth a read, or a re-read for those who read it when it was first published. She is one of the authors included in *Birdwatching with American Women* reviewed in the Summer, 1987 volume of ***The Loon*** if you wish to learn more about this remarkable woman.

FROM THE WILD, Portfolios of North America's Finest Wildlife Artists, Edited by Christopher Hume, Introduction by David M. Lank, Published and Distributed in the United States by North Wood, Inc., Ashland, WI, 1987, 192 pages, $45.

This book contains some of the best work of twelve of the best wildlife artists working today: namely, Robert Bateman, Claudio D'Angelo, Owen Gromme, Bob Kuhn, Fenwick Lansdowne, Glen Loates, George McLean, Stanley Meltzoff, Lanford Monroe, Ron Parker, Roger Tory Peterson, and John Schoenherr.

It also contains a remarkable paragraph which should please Minnesota birders: "Perhaps the most fascinating book for students of bird art is *The Birds of Minnesota,* published in 1932 and containing a posthumous plate by Fuertes, elegant early examples by George Miksch Sutton, several by Walter A. Weber, and the first works of John (sic) Breckenridge. The principal artist was Brooks.... It was this book which confirmed the superior work of Francis Lee Jaques as well, who, Brooks remarked 'stands alone in America in making a bird picture.'... In his works, the brush paints less than the mind sees, and the result raises Jaques' compositions to levels that soar above mere illustrations of scientific accuracy. Jaques was perhaps the best practitioner of black-and-white,..." We have long recognized the importance of Dr. Thomas. S. Roberts' work as author of a definitive treatise on Minnesota birds; perhaps his contribution to the encouragement of fine wildlife artists deserves greater attention. This is a beautiful book containing 188 illustrations, mostly in color, many full-page; and one that has, as well, worthwhile comments on the development of wildlife art in North America.

Anne Marie Plunkett, 2918 S.W. 15th Avenue Rochester, MN 55902

ONE MAN'S OWL, by Bernd Heinrich, Princeton University Press, Princeton, NJ 1987. 209 pages. Hardbound $19.50.

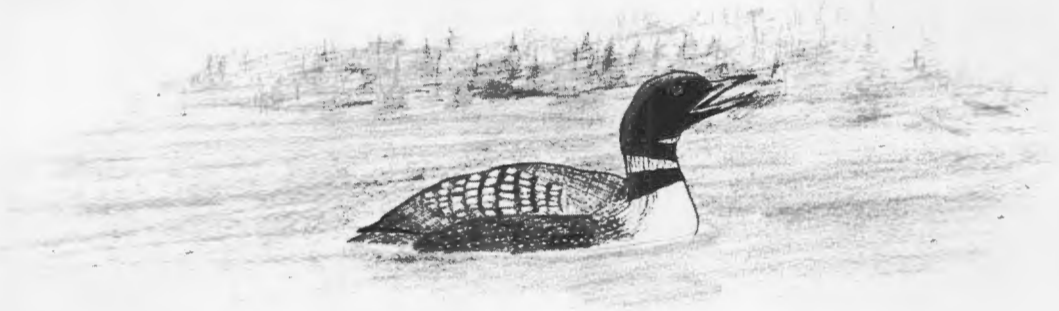
If you have ever wondered what it would be like to live with a wild bird, or simply wondered what other people have gone through while living with a wild bird, Bernd Heinrich's book is for you. It is an account, in the form of a three year diary, of the author's involvement with a Great Horned Owl (which he named Bubo) that he "rescued" as a wet and "abandoned" chick. Justifying his keeping of the bird at his cabin hideaway in the name of science, Professor Heinrich raised Bubo and lived with it for three summers in the wood of Maine.

The book is filled with cute and amusing incidents that result from the presence of Bubo, the author, and assorted other human and avian visitors. Complemented by the authors drawings and photographs we are presented with a well rounded picture of the trials and tribulations, as well as the pleasures, of a close relationship with a wild predator. Fortunately, this is more than just a cute recollection. Professor Heinrich attempts to integrate much that is known regarding the natural history of Great Horned Owls into his observations of Bubo. Well referenced, the author brings a sharp eye and curious mind to his task of watching the owl grow. There is also a sprinkling of conservation philosophy, and opinons, including the value of saving individual owls versus "statistical" owls.

This is not a book of original research nor are the observations, well written as they are, new or startling. There is very little in *One Man's Owl* that is not available from other sources. What is missing here, is a realization on the authors part that he has imprinted this bird on himself and that many of the observations he makes and incidents he relates are a direct result of this imprinting. Every raptor rehabilitator (including the ones he talks about in the book) can relate far too many stories about the trouble human imprinted owls cause, to unsuspecting people and ultimately themselves. It is left to the astute reader to ponder the consequences that would befall a tame (yet aggressive) owl when it visited less understanding neighbors. This does not diminish the insights and the pleasures this book provides regarding Bubo and the human who raised him.

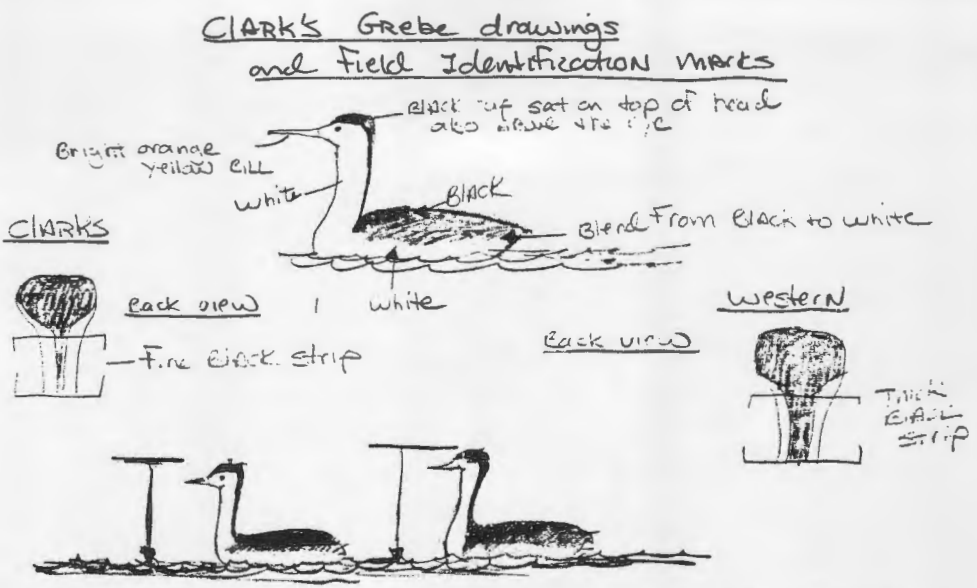
I would be remiss if I did not mention that it is illegal (and unethical) to keep any wild bird. Instead, read *One Man's Owl,* and leave the raising of owlets to mother nature.

Mark Martell, Raptor Research and Rehabilitation Program, 1988 Fitch St., University of Minnesota, St. Paul, MN 55108.



NOTES OF INTEREST

A CLARK'S GREBE IN DULUTH — On May 7, 1987 at 5:15 p.m., I received a call from Robbye Johnson of Superior who reported five Western Grebes in the St. Louis River off the 40th Avenue West Erie Pier area. Since I had never seen a Western Grebe in St. Louis County, I immediately drove down to look for them. I arrived at 5:40 and found them right away. Although I had seen lots of Western Grebes before in western Minnesota, I had never seen a Clark's anywhere, but I knew this was a possibility to watch for. I only had 10X binoculars and no spotting scope, however, so I was unable to tell if they were all Westerns because of the distance involved and some interfering heat waves. As I started to leave, Robbye Johnson returned with her scope. The grebes were now closer than before, about 250 yards away according to some nearby buoys later located on a navigation chart. While watching them for about 20 minutes with the sun at our backs, I could see that four of the grebes had a bone-yellow color on the bill and that the fifth had a brighter, more orange bill. I mentioned this to Robbye, but since her scope was not good enough to see if there was any difference in the face pattern, she still thought all five were Western Grebes and she left. However, based on the striking difference in the fifth grebe's bill, I knew it might still be a Clark's Grebe, although I didn't have any field guides along and could not remember what the bill color on a Clark's was. So I called Kim Eckert, told him of the grebes and that one had a striking orange bill, and he came down to look at them. With his 40X Nikon scope, which gave us a better view than Robbye's, he immediately saw the difference in bill color, and he also could see that the sides were paler and that the smaller black cap of this grebe stopped above the eye. As I looked through his scope to observe these differences, I could also see that as this grebe turned and faced away from us that the black line down the back of the neck was narrower than on the Western Grebes with it. Kim also noticed that the Clark's Grebe was slightly smaller or perhaps rode lower in the water. Although there was no doubt about the identification, we were unsure at the time how far out the grebes were and whether they were on the Minnesota or Wisconsin side of the river. While Kim went to call other birders, I drove over to the opposite shore and found that the grebes were barely visible from the Wisconsin side, leaving no doubt in our minds that the grebes were indeed well within Minnesota. When I got back to 40th Avenue West, Parker Backstorm, Doug Johnson, Don Kienholz, Bill Penning, Mark Stensaas and (for the third time) Robbye Johnson had arrived, and for the next hour or so until sunset everyone was able to see the diagnostic features of the Clark's Grebe, especially the bill color, in



direct comparison with the four Western Grebes. The next day several birders searched the river, harbor area and nearby Lake Superior for any grebes, but no one was able to relocate them. I would like to thank Kim Eckert for his help in preparing this account.

Mike Hendrickson, 1022 N. 11th Ave. E., Duluth, MN 55805

COMMON BLACK-HEADED GULL AT HERON LAKE, JACKSON COUNTY, APRIL 24, 1987 — Almost a year ago, I had driven over to Heron Lake on one of my very first "chases" and had been thwarted; first by Mr. Pohlman's reluctance to let me take out his motorboat; and secondly, by impending threatening weather, which turned out to be a very bad storm. So I had had a year to "study-up" and to hope before I made the treck again. I reached Pohlman's quite ahead of the appointed hour for meeting Kim Eckert, Parker Backstrom, and Bill Penning and almost as I drove into the farm-yard saw a dark-headed gull flying over a plowed field. I had an unobstructed view of it, for two or three minutes and felt confident that I had seen a Common Black-headed Gull for several reasons: I was familiar with the species. Its head was more brown than black; it had an eye ring; its hood was sharply delineated, and not sloping onto its nape; it had a white leading edge to the wing extending into a narrow triangle along the outer edge; its mantle was a light gray; its body and tail were white; its legs were deep red; also its bill; and when it circled, it appeared dark from below. As I drove in Mr. Pohlman (who remembered me from last year!), said, "Well did you see it?" For the next half-hour or so, I tried to walk out onto the dike. There were Western Grebes in the small bay near the "Gun-club" building, and I

tried to view them with a 40X Nikon scope (as Clark's Grebes had recently been seen in the area of Heron Lake) but the wind and the waves were too much for me to be sure of much of any field mark. So I gave up on that and watched instead as Bonaparte's Gulls passed overhead. About half-way out on the dike, with farm fields to my left (the sun as well), I saw gulls following a plow, as the farmer worked the field. Soon I was again seeing a Common Black-headed Gull, the same or another I couldn't say, but checked off the same field marks, consulting the references I had stuck in my coat pocket. Once sure of my identification, I watched the bird handle the wind and noted with some satisfaction that I was not alone in finding it a bother. Thirteen Double-crested Cormorants, and a flock of about 70 American White Pelicans, several Franklin's Gulls and a few Bonaparte's occupied the next half-hour. At this point, I had pretty much "had it" struggling with the wind, and decided to head back to Rochester, as it was then nearly ten o' clock, and I decided I could wait for the Duluth lads no longer. However, I met them out on the gravel road, and so headed back with them to Pohlman's. With them, I walked the dike again for about 45 minutes, but not seeing the Black-headed Gull again, I left them to their own devices and headed happily for I-90 and home.

Anne Marie Plunkett, 2918 S.W. 15th Avenue, Rochester, MN 55902.

HOUSE FINCHES IN MINNEAPOLIS — On November 8, 1986, I put up bird feeders at my house in North Minneapolis which is adjacent to the Wirth Park Golf Course. On November 22, 1986 I noticed a bird somewhat smaller than a House Sparrow with heavily streaked flank and a plain head. After consulting a field guide, and without much confidence, I identified the bird as a female House Finch. Then on December 28, 1986 I saw a similar bird with a defined red crown, breast and rump. I knew that I had a pair of House Finches. On December 30, 1986 Janet Green and Bob Janssen confirmed that the female was indeed a House Finch. In January, 1987, the sighting was included on the Rare Bird Hotline and many people saw the House Finches. On January 18, 1987, I began seeing two males and two females. During January and February, the House Finches showed up thoughout the day at a south facing feeder filled with black sunflowers. On January 25, 1987 I observed a male feeding a female and on March 6, I heard the male singing. The feeding behavior continued until early June when I no longer saw the females. From mid-June through mid-August I didn't see any females and saw a male but twice. On August 29, 1987 I saw a male with just a few red feathers on his breast. I believe that this bird was a first fall male. During the fall of 1987 I saw this male with increasing frequency and on November 29, 1987, I observed three males and one female. Could the House Finches be here to stay in Minnesota?

David Richfield, 1235 Washburn Ave. N., Minneapolis, MN 55411.

BLUE-WINGED AND "LAWRENCE'S" WARBLERS AT ITASCA STATE PARK — In the course of my field research on the singing behavior of Golden-winged Warblers (*Vermivora chrysoptera*) at Itasca State Park, Clearwater County, I frequently make early morning observations of courtship and territorial behavior. On May 12, 1986, I was observing two color-banded male Golden-wings who were counter-singing intermittently at their common territorial boundary along No-Name Road in the park's northeastern corner. Just after 6:00 A.M., I noticed a female Blue-winged Warbler (*V. pinus*) in the company of one of the males (Dark Blue), uttering "zzt" notes very similar to the chips used by Golden-wing males and females. Dark Blue followed her closely as she foraged through the low shrubs of hazel and arrowwood, chasing her for short distances, and occasionally flying up to a small aspen to sing several buzzy songs (zee-bee-bee). The Blue-wing's plumage appeared completely normal through binoculars: black eyeline, two well separated white wingbars, and yellow face and underparts. I watched the two together for about 30 minutes before

leaving to make other observations.

The Blue-wing female spent two more days in the immediate area, but after the first day she spent her time exclusively on the territory of a neighboring Golden-wing male, Orange-Black (OB). OB actively courted the female, performing courtship in her presence, foraging with her in low vegetation, and responding to her chips by flying to her side. Over the course of both mornings, I sighted the female at locations throughout OB's territory, but particularly along a shrubby woods edge on his northern boundary. Here she seemed to inspect closely the bases of several weedy clumps, as if prospecting for a nest site. At one point, she carried a small piece of birch bark for several seconds along a branch, but then dropped it. She was last seen about 6:30 on the morning of the 14th. Within a day or two, OB had reverted to advertising for a new mate by singing almost constantly throughout the morning, and by May 22 he had attracted a normal Golden-wing female.

Since 1984, I have spent four field seasons in the Lake Itasca area and observed over 300 territorial male Golden-wings. The Blue-wing female was the first unusual *Vermivora* I had come across in that entire time. I was thus quite surprised, on May 17, just three days after the Blue-wing had disappeared, to discover a female "Lawrence's" hybrid apparently resident on a Golden-wing territory only 500 meters from the territory of OB. This female also associated closely with a male. She was still on the territory May 19 when, together with my field assistants Paul Rodewald and Tom Seabolt, I captured, color-banded (Light Blue), and photographed her. Her plumage appeared to be that of a normal Golden-wing female in all respects except for a narrow, bright yellow band across her white breast immediately below the gray throat patch, and more yellowish-green feathers on the back than I am used to seeing on female Golden-wings in this area. Her possible mate, who was also caught and banded (Mauve), was a normal Golden-wing male in both song and plumage.

Although there are two more northern reports of Blue-winged Warblers in Minnesota, Lake County June 11, 1977 (***The Loon*** 49:233) and Otter Tail County June 3, 1984 (***The Loon*** 56:198), I believe that his is the first report of this species, or of hybrids, in the Lake Itasca region, and the first evidence of attempted interspecific pairing in the northern part of the state.

R. Tod Highsmith, Dept. of Zoology, Morrill Science Center, University of Massachusetts, Amherst, MA 01003.

PACIFIC LOON IN KANDIYOHI COUNTY — On October 25, 1987, I was birding at Lake Lillian, Kandiyohi County. It was cloudy and heavily overcast when I spotted what, at first, I thought was a grebe because of the short bill. I then realized it was a loon by the long body. I watched it for 45 minutes as it dove and swam around the lake. I suspected it was a Pacific Loon by the short, slender bill, and by the clear demarcation between white and dark on the side of the neck. The dark on the side of the head ran through or below the eye. There was no eye-ring. The light gray on the back of the neck could be seen well. The bird had a sloping forehead, not acutely angled (although I guess this is not a distinctive characteristic). It held its bill level or horizontal to the water. Its dive was smooth, with no forward leap. It looked smaller than a Common Loon, but no actual size comparison could be made.

Raymond Glassel, 8219 Wentworth Ave., Bloomington, MN 55420.

UNUSUAL YELLOW-RUMPED WARBLER — On September 23, 1987 Bill Evans and I journeyed to Park Point, Duluth to look over the Lapland Longspurs, hoping to find a Smith's Longspur among them. Before heading out past the Sky Harbor airport, where most of the longspurs can be found, we walked around the recreation area checking over the warblers and sparrows. Bill said the he was looking at an unusual bird and, because I was closer to it than he was, tried to point it out to me so that I might be able to get an I.D. on

Unusual plumaged Yellow-rumped Warbler. Drawing by Parker Backstrom.

it. The bird flew before I could locate it. He said it looked as though it had a collar. Dismissing it as a Yellow-rumped Warbler in bad light, we continued on. Walking towards the boat-launching dock west of the ballfield, we pushed many birds along ahead of us until they were concentrated in a small area adjacent to the water. As I looked over the many Yellow-rumps and Dark-eyed Juncos, I saw one warbler that was very unusual. Calling Bill's attention to it, he told me that that was the bird that he'd seen about 100 yards back. It was clearly a Yellow-rumped Warbler but, against the dark rocks, we could see that it had rather extensive white feathers in areas that it should have been brown. The head was normal, but it had a broad white band extending from the upper breast on both sides across the nape. This gave the bird a "helmeted" appearance. The back was whitish with brown feathers scattered across it, giving the back a mottled appearance. As it hovered, it showed some white on the lower back and between the wings. There was a small brown band between the lower back and the normal yellow rump. The breast and sides appeared lighter than normal, with little brown wash and only light streaking. The right wing appeared normal but the left wing had some white on the median wing coverts and at least two of the greater wing covert feathers were all white. The tail was normal. Interestingly, Kim Risen and I relocated the same bird near the beach house on September 29 and Bill Evans found it again about two miles closer to town on October 6.

Parker Backstrom 1204 E. 3rd St., Duluth, MN 55805.

RECORD EARLY DATE FOR BOHEMIAN WAXWING — It was the morning of September 22, 1987. After four days of perpetual rain (making this year's M.O.U. Hawk Ridge weekend a cold and wet one), sunshine was the only thing pouring down from the heavens on this day. It certainly was welcome. I was stationed at my post at the Lakewood Pumping Station along scenic Highway 61 just north of Duluth, counting migrants as they flew south along the shoreline. I was being assisted by the capable eyes and ears of Bill Evans.

Many of the migrants are detected by call notes uttered as they pass overhead. As Bill and I scanned the skies for hawks, we both heard a low call — a kind of cross between a rattle and a trill. First thoughts were Lapland Longspur or perhaps starling, but the call didn't really seem to match either one. As the call approached closer, I looked up and located the source. When I identified it as a waxwing, it struck me — Bohemian Waxwing! By

now both Bill and I were trained on the bird as it circled above us. Very quickly it joined three other waxwings and the birds wheeled around although only one of them was calling. Having heard and counted thousands of Cedars this fall, the vocal distinction was very obvious. As we watched the four waxwings fly around, we could see that one of the birds was noticibly smaller and had an obvious yellowish cast to the underparts making it a Cedar Waxwing. Although I did not notice the grayish underparts of the three larger waxwings, as Bill did, I did see the diagnostic dark undertail coverts on two of the three.

Bill and I discussed this unexpected find and knew that this was a record early appearance for this winter visitor in the state. As it turned our, our September 22 sighting eclipsed the early north record, set last year in Duluth, by eight days, and is only the second sighting ever for September.

Parker Backstrom, 1204 E. 3rd St., Duluth, MN 55805

ROSS' GOOSE ON SILVER LAKE, ROCHESTER — On October 29, 1987 about noon, I was checking the geese on Silver Lake when I noticed a small white goose about 75 yards out in the lake. I noted the small size, and the short bill. I did not have a spotting scope with me and so I was unable to see if the bird had a "grin" or not while observing with 7x35 binoculars. I informed Bob Ekblad of my suspicions about a possible Ross' Goose. On Oct. 31, Bob and Steve Ekblad stopped at Silver Lake to check the geese before going on a field trip to see migrating swans. They found the Ross' Goose on shore and were able to approach to within about 10 feet. They were able to note all of the field marks including comparing the size to a Mallard that stood next to the goose. They noted the short, stubby bill with rough texture around the base of the bill. Bob was able to get several excellent photographs of the goose. Bob and Steve proceeded to the meeting place for the field trip and six other people also got a chance to see the Ross' Goose. On November 9, I had the opportunity to appraoch to within about ten yards of the goose and watch it for several minutes. At this time I was able to checkout all of the field marks of a Ross' Goose. The goose has been seen clearly through January 3, 1988, on Silver Lake.

Jerry Bonkoski, R.R. 1 Box 24, Byron, MN 55920

Ross' Goose, October 31, 1987, Silver Lake Rocester, Olmsted County. Photo by Steve Ekblad.

BLUE-GRAY GNATCATCHERS IN HUBBARD COUNTY — According to Janssen's *Birds in Minnesota* (1987), the normal Minnesota breeding distribution of the Blue-gray Gnatcatcher (*Polioptila caerulea*) is nearly confined to 14 southeastern counties. However, northern Hubbard County (T145N, R34W, sec. 14) became home to a family of Blue-gray Gnatcatchers this summer, well away from its normal southeastern Minnesota haunts. Located eleven miles southwest of Bemidji is a long, narrow lake, Spearhead Lake, that is surrounded by transitional pine-hardwood forests and swamps. On July 20, 1987, I was out on Spearhead Lake observing a feeding family of loons when the sounds of young birds begging for food caught my ear and drew my attention shoreward. Twenty feet from my anchored boat, I saw a female Blue-gray Gnatcatcher feeding two fledglings which eagerly begged for food with flapping wings and open gapes. I watched the birds for 15 minutes: their long, white-edged tails were held wren-like at times on their dull-gray bodies that hosted a white eye ring. The adult's body was slender in comparison to the stout bodies of the young. She displayed a litte blue in her plumage, but lacked the V-shaped mark on the forehead common to a male in alternate plumage. In between feeding flurries, the young went through the motions of foraging on their own as they pecked at spider's webs that hung on the dead, flooded trees and shrubs at the lake's edge. The young moved about by perch-hopping and I never saw them in sustained flight. The female alternated feeding the young until all activity ceased with the call of a Broad-winged Hawk directly overhead. The adult went to the top of the small tree she was gleaning and gave a mew-like call as the fledglings remained inactive for the next four to five minutes, occasionally closing their eyes as they clutched their perches. When the female resumed the feeding activity, they all moved northward along the west shore and out of sight. I did not see an adult male during the observation period.

A second sighting of a single gnatcatcher occurred on August 31. I watched the bird in a flock of feeding Yellow-rumped Warblers as they worked the same dead brushline along the west shore of the lake, a quarter of a mile south of the first sighting. The bird had the duller plumage of an immature bird and was slender in appearance. I left the site to pick up a camera, but could not locate the bird upon my return.

Bonnie M. Porter, Neilson Spearhead Center, Route 2, Box 295AA, Bemidji, MN 56601

HENSLOW'S SPARROW OBSERVATION — On September 7, 1987, my sister, Susanna, and I were taking a walk in the countryside near our parents' home in Scandia Township, northern Washington County. As we came to the end of a farm road that ended in a field, we noticed a sparrow perched on top of a fence post. I trained my binoculars on the bird, and observed that it was a small sparrow with a very short tail and an olive green cast to the face. The time of day was about ten o' clock with excellent viewing conditions. The sky overhead was blue and we were watching the bird with the sun to our backs. We were about twenty feet away from the bird, and had an unobstructed view. At times the bird was facing us directly and at other times we had a view from the side and the back. Susanna shared my pair of Leitz 8x40 Trinovids; the duration of our observation was about six minutes. I initially viewed the bird through the binoculars and recited my observations out loud. Susanna then took her turn with the binoculars and checked each of my observations against the bird as it was in view. My observations were as follows: Size: the bird was clearly a small sparrow, smaller than a Vesper Sparrow and Song Sparrow that we saw later in the day. Structure: I particularly noticed the short tail. I did not note a flat head. Head: there was a light colored central crown stripe and two dark colored lateral crown stripes. There was a narrow moustachial stripe and a malar stripe. There was a whitish chin. The rest of the head was realtively unmarked and had an olive green cast that extended from the side of the face down to the side and front of the neck. I specifically looked for and did not see any yellow lores. Body: the upper parts of the body were reddish-brown with dark streaking. The olive-green color described on the head extended down from the foreneck onto the breast and sides. There was a fairly sharp demarcation between the "greenish" breast and the lighter abdomen and vent. Overlying the olive-green hue of the breast were

dark streaks which extended to the sides and down on the flanks as well. Wings: I looked for a rusty color at the bend of the wing but did not see any. I did not make any note of wing bars. Tail: I was mainly struck by the shortness of the tail. I did not notice whether the tail was notched or not. Soft Parts: the beak was gray on both the upper and lower mandible. The legs were bright pink. Voice: the bird did not make any vocalizations. Behavior: after several minutes of perching on the fence post, the bird flew at about waist level to the next fence post, where we were able to watch it for a while longer. Then it flew into a bean field where we were not able to relocate it.

Renner Anderson, 1929 Oakland Road, Minnetonka, MN 55343.

A RUFF IN CHISAGO COUNTY — On August 1, 1987 at 9:30 A.M., Anne Marie Plunkett and I were birding just east of Stacy, Chisago County in the Sunrise Addition to Carlos Avery Refuge. We were watching a mixed flock of Pectoral and Semipalmated Sandpipers and Lesser Yellowlegs when a large shorebird flew in from the east. At first glance, I thought it was a Black-bellied Plover. It settled down on a mud flat only 35-40 yards from us and we had a near-perfect view of the bird. The following is a description written while the bird was in view and before any field guides were consulted: one and one-half times the size of the Lesser Yellowlegs which were nearby for comparison; thick puffy neck; orange legs; thick, heavy bill, slightly shorter than Lesser Yellowlegs; throat white ot light gray; lower breast and belly and along flanks black to dark brown splotches; under tail coverts were white. The head from crown to nape was a mottled gray; wing coverts were brown, less dark than splotches on breast and belly — they had a "scaly" appearance; back was brown. After we had observed the bird at rest for three to four minutes, it took wing and flew south. As it flew away from us, we only got a glimpse of the tail; but it appeared to have white near the edges and was barred in the center. This is the first record for a Ruff in August in Minnesota and a first ever for Chisago County.

Robert B. Janssen, 10521 S. Cedar Lake Road, #212, Minnetonka, MN 55343.

SCISSOR-TAILED FLYCATCHER IN GOODHUE COUNTY — A Scissor-tailed Flycatcher was observed on October 16, 1987 at Prairie Island in Goodhue County. The bird was initially seen on a powerline overlooking a railroad crossing; it was spotted again four hours later in trees lining a meadow ¼ mile to the east. The flycatcher's silhouette was obvious from a great distance; under closer observation, the peach-colored wing linings were very bright. The bird put on an impressive aerial display of fluttering tail feathers before disappearing toward the south with a flock of blackbirds.

Kristi Hanson, Field Biologist, Northern States Power Company, 406 West Ave. Red Wing, MN 55066.

BLACK-BELLIED WHISTLING-DUCKS IN MEEKER COUNTY — On August 7, 1987, Bradley Koenen and two other employees of the Department of Natural Resources found two Black-bellied Whistling-Ducks on Thompson Lake which is along State Highway 7, one mile west of Cosmos, Meeker County. Over the next eight weeks, the two birds were seen on the lake by numerous observers. The birds were not seen after the duck hunting season opened on October 3, 1987. It appeared that Thompson Lake provided an excellent feeding area for these two whistling-ducks and hundreds of other ducks, especially Blue-winged Teal. A draw-down of the lake was started in mid-summer and the low water levels provided excellent feeding areas for the puddle ducks and the whistling-ducks. There were numerous exposed tree stumps bordering the lake which provided perches for the whistling-ducks. The birds were usually easy to find on the lake. I saw them on August 23, 1987.

Black-bellied Whistling-Ducks, September 5, 1987, Thompson Lake, Meeker County. Photo by Steve Zehner.

Their long pink legs, large pinkish orange bill with white tip, rusty body with a black belly as well as a very large white patch along the forewing (seen easily when the birds were in flight), made these two ducks stand out among the other waterfowl present on the lake. The birds were often seen standing on logs floating in the lake or perched in the larger trees on the north end of the lake. Because Black-bellied Whistling-Ducks are often kept in captivity, the Minnesota Ornithologists Union classified these birds as A_c on the Minnesota Checklist, which means there is a question as to the origin or wildness of the birds. The two birds appeared to be wild as no bands or markings of any kind, nor unusual feather wear were noted on either individual. There are two other records for Black-bellied Whistling-Ducks in Minnesota; one was shot on October 19, 1984 at Rice Lake, Faribault County (***The Loon*** 58:97-98) and another unpublished record of an individual seen at Wall Lake Otter Tail County on May 19, 1980.

Robert B. Janssen, 10521 S. Cedar Lake Road, #212, Minnetonka, MN 55343.

FALL KENTUCKY WARBLER IN MINNEAPOLIS — October 6th is generally too late for good warbler watching in the Twin Cities, but in 1987 it was my best day of the season. On that day I saw eight species of warblers at Roberts' Bird Sanctuary and the Lake Harriet trolley tracks, including a Black-throated Green, a female Black-throated Blue and, incredibly, an adult Kentucky. I found the Kentucky Warbler shortly after noon just north of William Berry Parkway along the trolley tracks. A yellow, warbler-sized bird rose from the ground, flew about forty feet, and landed on the ground again. I made the following notes over the next five minutes as I watched this bird with 7x35 binoculars from as close as 25 feet: upperparts greenish-brown; underparts rich yellow from throat to undertail coverts; no wingbars or tail spots; pink legs; black crown; black facial patch extending down neck; bold, yellow spectacles or a hook from bill around top of eye; undertail coverts long, to within about one-half inch of end of tail. About three hours later, I returned to the area and, with two other birders, tried to relocate the Kentucky Warbler. I saw it again briefly as it perched on a low branch not far from where I'd originally discovered it, but the others weren't as lucky. It disappeared into the brush on the west side of the tracks and was never seen again. According to Robert Janssen's *Birds in Minnesota* there is only one other fall record for this species in the state: August 19, 1963 in Anoka County.

Steve Carlson, 2705 Dupont Ave. S., Minnepolis, MN 55408

RECORD EARLY DATE FOR THE CAPE MAY WARBLER — On April 26, 1987, I was birding at Theodore Wirth Park in Minneapolis. I am not an overly ambitious birder, but I still enjoy birding (ever since a high school science teacher loaned me a pair of binoculars 25 years ago). I especially enjoy the spring warbler migration. The spring of 1987 had been pretty slow for me; lots of Yellow-rumps, of course, a few Palms, Yellows and Nashvilles. I was near the north side of Wirth Lake in a mixed lightly wooded area at mid-morning when I first noticed a warbler darting about in a young aspen. I caught a flash of yellow in the bright sunlight just before I sighted him in my binoculars. He was in profile, in good light and the chestnut colored cheek jumped right out at me. My first thought was of a Chestnut-sided (always one of my favorite warblers), but it was on the cheek not on the side and the bright yellow breast streaked with black confirmed him as a male Cape May. He hopped about the branches of the aspen, not singing, but staying in clear view and giving me and my companion several minutes to enjoy him as well as time to confirm my identification in my Peterson's before he flew away, disappearing high in a grove of conifers.

Bob Stachowiak, 2532 Portland Ave., Minneapolis, MN 55404.

Editor's Note: The previous early spring arrival date for the Cape May Warbler in southern Minnesota was May 3.

A HOUSE FINCH AT HASTINGS — The House Finch was first seen on October 13, 1987 at 7:20 A.M., sitting on my feeder at the kitchen window. It was seen several times each day through October 16. I could always tell when the bird was near the feeder because of the rapid "cheet-cheet-cheet" sound that it made. In no way did it sound anything like the squeaky notes of a Purple Finch. This bird acted very aggressively towards House Sparrows, chasing them away from the feeder. The photo of the bird was taken on October 14, 1987. This photo shows the one odd white feather in the wing of the bird.

Joanne Dempsey, 1017 W. 17th ST., Hastings, MN 55033.

Female House Finch, October 14, 1987, Hastings, Dakota County. Photo by Joanne Dempsey.

A COMMON MERGANSER HANGS ITSELF — My wife and I arrived at our summer cottage on Lake Vermillion, St. Louis County, in early May, 1987. After moving our gear into the cabin, we generally examine the other family facilities in the summer compound to assure ourselves that no damage has occurred during the winter. My sister and her husband, in the past, had put up a Wood Duck box, and when we looked at it, we were surprised to see a female Common Merganser hanging from the box. In all probability the bird had picked up a fish line while feeding on Lake Vermillion. The bird was either leaving or trying to enter the box when the end of the line got tangled around a nailhead on the face of the box. In trying to break loose she either broke her neck or was strangled. The photograph tells the story of what can occur when fishermen discard a fish line into a lake.

Robert O. Ferguson, 111 Cottage Grove Ave. S.E., Cedar Rapids, Iowa 52403.

WHITE-EYED VIREO IN STEELE COUNTY — On May 8, 1987, I was birding at the Bixby WMA in Steele County. I first heard the bird sing and recognized the song which sounded like "chick-pur-whee" with mewing and scolding notes interspersed. It took me 20 minutes to get a view of the bird in the thick low brush, but when I did finally see it, I first noted the bright yellow flank and under-belly. Then I saw the yellow spectacles, white wing bars and brownish back and crown. I was close enough to see the white iris. After watching it for approximately ten minutes, I went off birding. When I came back to the area an hour and a half later, the bird was still singing from the same tangled brush area.

Raymond Glassel, 8219 Wentworth Ave., Bloomington, MN 55420.

A PACIFIC LOON IN DULUTH — On the afternoon of October 17, 1987, a group of us were trying to relocate the Yellow-billed Loon which had been seen earlier in the day, when we found a Pacific Loon on Lake Superior near Leif Erickson Park near downtown Duluth. The bird remained in this vicinity through November 3 in the company of two to five Common Loons, and it was eventually seen be several birders. This loon's bill and overall body size were smaller than the Common Loons swimming with it, but any size difference was not all that obvious and would not have been noticeable without direct size comparison. More diagnostic were the Pacific Loon's pale gray nape and hindneck which were paler than the dark back. The white chin, throat and foreneck were sharply demarcated from the gray crown, nape and hindneck by a straight dark gray or blackish line down the sides of the neck, another diagnostic difference from the Common Loon (on this species the white foreneck and dark hindneck are not as sharply delineated and meet in an irregular pattern on the sides of the neck). The head profile was smoothly rounded, unlike the nearby Common Loons, and the neck appeared thinner, proportionally longer and more "snake-like". The back feathers had pale edges which were not especially obvious, but this pattern was more noticeable on the scapulars. Although no "chin strap" was ever seen for sure, not all Pacific Loons exhibit this, and this individual was easily identifiable by other features mentioned above.

Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804

A LARK SPARROW IN COOK COUNTY — In the midst of the excitement of all the sping arrivals came a bird to our feeder that is accidental in northeastern Minnesota; a Lark Sparrow. When I returned home on April 13, 1987, after being away for four days, I saw the Lark Sparrow under our feeder. Its arrival may have been as early as April 10. The Lark Sparrow remained in our area for five days, coming several times a day to the feeder area. Among all the bird activity, the Lark Sparrow was especially showy with its flashy black, white and chestnut face pattern, clear breast with conspicuous black spot and white corners on the tail that showed cleary anytime it flew. I last saw this bird on April 17. This is the second Lark Sparrow we have had in our area. The first was seen at our feeder on May 14, 1983.

Ellen Hawkins, Tofte, MN 55615.

Editor's Note: The above date of April 13 represents the second earliest date on record for northern Minnesota. The earliest date on file is April 5. Interesting is the fact that this record is also from Tofte, Cook County in 1967.

THE M.O.U. 300 CLUB

The 300 Club expanded to 55 members during 1987. That is an increase of 12 in just one year.The new members are marked with an * in the listing below.

The good news is that just about everyone added birds to their Minnesota Life List. The bad news is that most of the "old-timers" (including myself) lost one bird this year when the Chukar was dropped from the Minnesota List. If your birding days go back to the 1960's and early 70's and your list is one less than you expect, the reason is the Chukar.

The best candidate for outstanding bird of the year might well be the Garganey found by Ray Glassel in Waseca County (***The Loon*** 59:111-112). "Best" because it was seen by so many birders in what may have been a once-in-a-lifetime opportunity. The Magnificent Hummingbird found by Fred Eckhardt in his yard in Boyd, Lac Qui Parle County eluded most birders who tried to see it, but it is the most amazing record for the state. (***The Loon*** 59:145-146). The same may be said of the Golden-crowned Sparrow seen and photographed during its brief stay at Watson, Chippewa County by Gretchen and Roger Johnson (***The Loon*** 59:101-102), unfortunately no 300 Club Member got to see it.

The honors for those adding most species to their list in 1987 go to Anne Marie Plunkett (319) and Bob Ekblad (315) who weren't even in the 300 Club last year, to Mike Mulligan (321) who added 18 species to his list, and special honors to Steve Ekblad (309), who is the youngest (age 13) member of the 300 Club. I keep wondering if 400 will ever be possible in my lifetime or any one else's? If I add three species per year as I have been doing for the past few years, it will only take 11 more years to reach that magic number. If only two per year, it will take 16 years! I would then be 71. I hope I make it! "Birding" will be the answer.

The totals below are as of December 1, 1987.

Ray Glassel	368	Frances Nubel	322
Bob Janssen	368	Mike Mulligan	321
Kim Eckert	366	Ruth Andberg	320
Dick Ruhme	360	*Anne Marie Plunkett	319
Terry Savaloja	360	Parker Backstrom	318
Bill Pieper	359	Ken LaFond	318
Jo Blanich	354	Byron Bratlie	317
Paul Egeland	354	Doug Campbell	316
Bill Litkey	353	*Bob Ekblad	315
Don Bolduc	352	Wally Jiracek	315
Liz Campbell	351	Betty Campbell	314
Karol Gresser	345	Henry Kyllingstad	314
Jan Green	343	*Don Kienholz	313
Harding Huber	341	*Phyllis Basford	312
Steve Millard	341	Jerry Bonkoski	311
Oscar Johnson	340	*Mike Hendrickson	311
Jerry Gresser	338	Nestor Hiemenz	311
Ron Huber	337	*Leata Pearson	311
Al Bolduc	336	*Steve Ekblad	309
Warren Nelson	335	*Tammy Field	309
Gloria Wachtler	335	*Judith Sparrow	305
Dick Wachtler	335	Ilene Haner	304
Jon Peterson	334	Vi Lender	303
Ann McKenzie	333	*Elaine McKenzie	303
Evelyn Stanley	331	*Joanne Dempsey	301
Gary Swanson	331	Jo Herz	301
Keith Camburn	326	*Mark Stensaas	300
Diane Millard	324		

The MINNESOTA 200 COUNTY CLUB

Birding is alive and very well; in fact, it is thriving in Minnesota. As can be seen from the lists below, there are now 84 of the 87 counties in which someone has recorded 200 species. The only counties with less than 200 are Nobles, Lincoln and Red Lake. Ray Glassel and Ken LaFond, the state's most active county listers, topped 200 species in Faribault, Murray, Stevens, Mahnomen, Norman, Watonwan and Wilkin Counties during 1987.

With these county totals and the number of people involved, it is quite obvious that the state is being well covered. However, there are always new things to be learned about bird distribution in the state. County listing is a good way to increase our knowledge of Minnesota birds.

The total after the county name is the total number of species recorded in the county by all observers. The totals given below are those reported to the Editor through December 15, 1987.

County	Total	Observer	No. of Species
Aitkin	291	Warren Nelson	257
		Terry Savaloja	255
		Jo Blanich	255
		Ray Glassel	222
		Bob Janssen	220
		Ken LaFond	214
		Bill Pieper	212
		Kim Eckert	201
Anoka	294	Ken LaFond	275
		Ray Glassel	243
		Steve Carlson	231
		Ruth Andberg	224
		Bill Pieper	221
		Bob Janssen	219
		Dick Rengstorf	200
Becker	266	Ken LaFond	205
		Ray Glassel	202
		Bob Janssen	200
Beltrami	273	Jeffrey Palmer	226
		Ken LaFond	211
		Ray Glassel	207
Benton	240	Ken LaFond	211
		Bob Janssen	207
		Ray Glassel	207
Big Stone	257	Micki Buer	231
		Ken LaFond	206
		Ray Glassel	205
Blue Earth	265	Merrill Frydendall	229
		Ray Glassel	210
		John Frentz	205
Brown	250	Ray Glassel	221
		Bob Janssen	201
		Ken LaFond	201
Carlton	246	Ken LaFond	226
		Ray Glassel	203
Carver	256	Kathy Heidel	218
		Ray Glassel	217
		Bob Janssen	205
		Ken LaFond	201
Cass	267	Ken LaFond	203
		Ray Glassel	202
Chippewa	238	Micki Buer	212
		Ray Glassel	204
		Ken LaFond	202
Chisago	253	Ray Glassel	226
		Ken LaFond	218
Clay	281	Carol Falk	239
		Laurence Falk	238
		Ray Glassel	214
		Ken LaFond	211
		Bob Janssen	202
Clearwater	267	Al Bolduc	242
		Ray Glassel	212
		Ken LaFond	210
Cook	293	Molly Hoffman	258
		Ken Hoffman	258
		Kim Eckert	223
		Bob Janssen	215
		Ray Glassel	207
		Ken LaFond	203
Cottonwood	260	Buddy Feil	230
		Ray Glassel	206
Crow Wing	270	Jo Blanich	241
		Terry Savaloja	233
		Ken LaFond	211
		Ray Glassel	211
		Warren Nelson	210
		Bob Janssen	202
Dakota	284	Ray Glassel	265
		Joanne Dempsey	251
		Bob Janssen	244
		Karol Gresser	242
		Jon Peterson	213
		Ken LaFond	212
		Ann McKenzie	211
		Al Bolduc	210
Dodge	227	Ray Glassel	213
		Ken LaFond	200
Douglas	237	Ken LaFond	203
Faribault	227	Ray Glassel	200
Fillmore	251	Anne Marie Plunkett	224
		Ray Glassel	209
		Ken LaFond	202
Freeborn	260	Ray Glassel	217
		Charles Flugum	213
		Ken LaFond	201
Goodhue	282	Bill Litkey	243
		Ray Glassel	242

Ray Glassel 219
Mike Link 209
Bob Janssen 206

Pipestone 248
Kim Eckert 201

Polk 265
David Lambeth 225
Al Bolduc 216
Shelly Steva 211
Ray Glassel 208
Sharon Lambeth 206
Bob Janssen 206
Ken LaFond 203

Pope 258
Bob Janssen 207
Ray Glassel 205
Ken LaFond 200

Ramsey 291
Ray Glassel 250
Liz Campbell 248
Bill Litkey 248
Bob Janssen 231
Tom Soulen 231
Bill Pieper 224
Ken LaFond 217
Bob Holtz 211
John Fitzpatrick 209
Dick Rengstorf 207
Ann McKenzie 201

Redwood 233
Ray Glassel 206
Bob Janssen 201
Ken LaFond 200

Renville 247
Ray Glassel 220
Paul Egeland 212
Ken LaFond 207

Rice 273
Orwin Rustad 239
Ray Glassel 229
Kirk Jeffrey 225
Paul Egeland 200
Bob Janssen 200
Ken LaFond 200

Rock 252
Kim Eckert 241
Ray Glassel 203

Roseau 265
Art Johnston 210
Bob Janssen 206
Ray Glassel 201
Ken LaFond 200

St. Louis 343
Kim Eckert 308
Jan Green 294
Mike Hendrickson . . . 281
Paul Egeland 277
Keith Camburn 276
Bob Janssen 271
Leata Pearson 266
Ray Glassel 265
Parker Backstrom . . . 264
Doug Johnson 264
Laura Erickson 263
Don Kienholz 256
Ken LaFond 250
Mark Stensaas 248
Bill Penning 246
Bill Pieper 242
Bill Litkey 241
Al Bolduc 228
Gary Swanson 217
Steve Schon 216
Henry Kyllingstad . . . 211
Ann McKenzie 210
Jon Peterson 208
Oscar Johnson 206
Don Bolduc 204
Anne Marie Plunkett . 204

Scott 265
Ray Glassel 246
Bob Janssen 218
Karol Gresser 208
Ken LaFond 204

Sherburne 276
Ken LaFond 231
Ray Glassel 214
Bob Janssen 210
Sharon Sarappo 208

Sibley 242
Ray Glassel 222
Bob Janssen 213
Ken LaFond 200

Stearns 290
Nestor Hiemenz 273
Kim Eckert 238
Ray Glassel 223
Ken LaFond 218
Bob Janssen 207

Steele 239
Ray Glassel 226

Stevens 238
Ray Glassel 202
Ken LaFond 201

Swift 248
Micki Buer 218
Ray Glassel 208
Bob Janssen 202
Ken LaFond 200

Todd 249
Ken LaFond 230
Ray Glassel 207

Traverse 241
Ray Glassel 210

Wabasha 269
Ray Glassel 232
Don Mahle 224
Bob Janssen 207
Ken LaFond 206

Wadena 252
Dick Oehlenschlager . 242
Ken LaFond 201

Waseca 222
Ray Glassel 211

Washington 280
Ray Glassel 254
Bill Litkey 250
Bob Janssen 225
Joanne Dempsey 224
Liz Campbell 222
Tom Bell 210
Ken LaFond 208
Dick Rengstorf 205

Watonwan 232
Ray Glassel 201

Wilkin 242
Ray Glassel 203
Ken LaFond 202

Winona 259
Ray Glassel 217
Bob Janssen 212
Anne Marie Plunkett . 208
Ken LaFond 201

Wright 257
Gary Swanson 231
Ray Glassel 219
Ken LaFond 214
Bob Janssen 205

Yellow Medicine . . . 256
Paul Egeland 227
Micki Buer 215
Ray Glassel 208
Ken LaFond 200

Birding is the Answer
Part III

Robert B. Janssen

It is an accepted 20th Century statistic that most employed people do not love their jobs and only do the work because they have to. The current bumper sticker, "I owe, I owe, so off to work I go" seems very appropriate in this day and age.

Of the small percentage of those who really enjoy their work, a number of these become workaholics and thus can be quite dull company.

I am afraid I have to admit that after 30 years of employment, working for a large corporation, I fall into the category of one of those who really doesn't find total fullfillment in his profession. I have thought many times, in the privacy of my own mind, that there isn't a job known to a man that I would be completely happy and satisfied doing, but I was caught up in the materialism trap and so I too fit the "I owe, I owe" category very nicely.

Being of somewhat sound mind and body, I spent a good portion of my early years trying to overcome this problem. If only I could paint birds I thought then I could become another Roger Tory Peterson or Robert Bateman. As you can see, I did not have conservative dreams. But since I could hardly write my name legibly, I gave up on that idea very quickly. Then in my early 30's, due to a very traumatic experience in my life, I confronted the fact that I was finite; what a revelation! This led me to think of the religious life as the profession for me. How I would get the education, what I would tell my wife and two children didn't seem to occur to me at the time. The celibate life of contemplation was my true destiny as I saw it then. But that impulse faded and instead I stuck to the daily routine in the envelope business, advancing moneywise and jobwise as the years passed.

All through these years it gradually became clear to me that I really was pursuing the ultimate "job" for me: that job was the study of the distribution of Minnesota birdlife. It didn't matter that I wasn't getting paid for this job; in fact, it was costing me lots of money mainly in gas and automobiles, not to mention binoculars, scopes and books. A slight digression: birding can really be a most inexpensive hobby, but that is the subject of another column.

As I got older I realized that the job at the envelope factory was really providing the means (i.e. money) for me to do something that a vast majority of the population wasn't doing - finding meaning in their work.

When my son was struggling to find his niche in the business world, (something he is still grappling with; like father - like son) he paid me one of the greatest compliments a son could give a father. He told me, "Dad - you are a very successful person, you have found a balance in your life." What he was saying as he explained to me later, was that he felt I had found at least a partial solution to the job problem. I had found a balance between my vocation (the envelope business) and my avocation (birding) and as a result I could enjoy both.

Thus I have found that Birding is the Answer to my business life and my non-business life. When I first read Henry David Thoreau and his statement that "most men lead lives of quiet desperation" I vowed I wouldn't fit into this category.

If your job, your day, isn't all you want it to be, go birding and see if Birding isn't the Answer. At the very least, it will be a big help. If you are one of those who is really devoted to his job and really don't have time to "get out", go birding immediately, you need it. It will make your job all the better.

Birding is the Answer - to the Hectic Holidays

Anne Marie Plunkett

Last night I went to a Christmas party - the kind where they park your car for you. I hadn't planned to stay long, just to pay my respects and have a Christmas cookie or two. As it turned out, I stayed for about two and a half hours - for several reasons. First of all, I was flattered to be included in a crowd of mostly young people. Secondly, the food was fantastic. And thirdly, I couldn't get away because everyone seemed to want to talk to me about birds. This amazed me somewhat. It wasn't that way when I was the age of most of the party-goers last night. There was a degree of knowledge which also surprised me; they discussed the Peregrine release of last summer; many had been over to see the Tundra Swans on the Mississippi; some even knew there was a rare Ross' Goose at Silver Lake downtown. Many wondered about their winter birds' feeding habits, and whether this or that feeder or seed mixture was better than some other. The hunters talked about habitat, and game management. Not one of the sharply dressed young women sported a feather anywhere! Could it be that the young people are that much more aware of the need to conserve their earth than people of my generation?

When I did get home, I wasn't slightly tired so I wrapped Christmas presents - the beautiful Walter Breckenridge prints of "The Loon Family" which he has so generously made available for sale at a marvelous price to help celebrate the Minnesota Ornithologists' Union's 50th anniversary year. One would be going to a daughter living in Germany to remind her of her homeland. Two would be going to daughters living in and near Anchorage, Alaska that they could point to with pride - their home-state bird shown with splendor. One would go to a son about to be married, and the last to a just-married daughter; what better gift for their new homes than fine art.

That done, I set about wrapping five volumes, for the same son and daughters, of Bob Janssen's new book, *Birds in Minnesota,* a book they know has extra meaning for me, as I had proofed it while nursing a broken wrist last summer.

And before turning in, I wrote up my list of persons who will get gift memberships in MOU — and thought how easy the Holidays can be when they revolve around birding.

Index to Volume 59

PURPOSE OF THE MOU

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 promote the preservation of birdlife and its natural habitat.

We carry out these aims through the publishing of a magazine, ***The Loon***; sponsoring and encouraging the preservation of natural areas; conducting field trips; and holding seminars where research reports, unusual observations and conservation discussions are presented. We are supported by dues from individual members and affiliated clubs and by special gifts. The MOU officers wish to point out to those interested in bird conservation 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*** invite you to submit articles, shorter "Notes of Interest" and color and black/white photos. Photos should be preferably 5x7 in size. Manuscripts should be typewritten, double-spaced and on one side of sheet with generous margins. Notes of Interest should be generally less than two typewritten pages double-spaced. If reprints are desired the author should so specify indicating the number required. A price quotation on reprints will be sent upon receipt of information.

Club information and announcements of general interest should be sent to the Newsletter editor. See inside front cover. Bird-sighting reports for "The Season" should be sent promptly at the end of February, May, July and November to Kim Eckert. See inside front cover.

TABLE OF CONTENTS