

The **LOON**

SPRING 1975

VOLUME 47 — NUMBER 1



The LOON Minnesota's magazine of birds and nature, is published four times each year by the **Minnesota Ornithologists' Union**, the state-wide bird club. Permanent address: J. F. Bell Museum of Natural History, University of Minnesota, Minneapolis 55455. Anyone interested in birds and nature 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: Karol Gresser, 8850 Goodrich Ave., Bloomington, Minnesota 55437. To join the MOU and receive both MOU publications, send Mrs. Gresser \$5 for a regular yearly subscription. Or other classes of membership that you may choose are: Family \$6 yearly; Sustaining \$25 yearly. Life \$100. Also available from Mrs. Gresser: back issues of **The Loon** (\$1.50 each ppd.) and MOU checklists of Minnesota birds (minimum lots of 20 for \$1.50 postage paid). Gifts, bequests, and contributions to the MOU Endowment Fund should also be sent to Mrs. Gresser.

EDITOR OF THE LOON: Robert B. Janssen, 14321 Prince Place, Hopkins, Mn. 55343. (phone 938-7464). The editor solicits articles, short notes, and black/white illustrations about birds and nature. See back cover for details.

"The Season" section of **The Loon** publishes reports of bird sightings throughout Minnesota. We particularly desire 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," Mrs. Janet Green, 9773 North Shore Drive, Duluth, Mn. 55804.** (area 218, phone 525-5654).

EDITOR OF THE MOU NEWSLETTER: Mrs. Marlyn Mauritz, Route 4, Box 886, Excelsior, Minn. 55331. Publishes announcements and reports about activities of the MOU and its affiliated clubs. (Club officers should keep both MOU editors informed.)

MOU OFFICERS

PRESIDENT: Jack Mauritz, 6810 Tecumseh Lane, Excelsior, Minn. 55331

FIRST VICE PRESIDENT: Henry Kyllingstad, 205 6th St. S., Marshall, Minn. 56258

SECOND VICE PRESIDENT: Wally Jiracek, 5814 Portland Ave. S., Minneapolis, Minn. 55417

SECRETARY: Jo Blanich, Box 96, Crosby, Minn. 56441

TREASURER: Karol Gresser, 8850 Goodrich Ave., Bloomington, Minn. 55437 (phone 612-831-5714).

MOU COMMITTEE CHAIRMEN

RESEARCH AND RECORDS: Mrs. Janet C. Green, 9773 North Shore Drive, Duluth, 55804. **FIELD TRIPS:** John Telfer, 5717 Hawkes Drive, Minneapolis 55436. **MEMBERSHIPS:** Mrs. George Stanley, 213 Janalyn Circle, Minneapolis 55416. **NOMINATIONS:** Marvin Borell, 5808 Portland Ave., Minneapolis 55417. **UNIVERSITY COORDINATION:** Dr. Harrison Tordoff, Bell Museum of Natural History, Univ. of Minnesota, Minneapolis 55455. **NATIONAL AUDUBON COORDINATION:** Ed Bringham, Rt. 4, Red Wing 55066. **PUBLICITY:** Kathy Heidel, Rt. 5, Box 108, Excelsior 55331. **THOMAS S. ROBERTS AWARD:** Wally Jiracek, 5814 Portland Ave., Minneapolis 55417. **FINANCE AND ENDOWMENT:** Mrs. Mary Wyatt, 205 Oak Manor Ct., Fargo, North Dakota 58102. **HOT LINE:** Roy Zook, 5520 Warwick Place, Minneapolis 55436. **SLIDE FILE LIBRARY:** Wally Jiracek, 5814 Portland Ave., Minneapolis 55417. **HISTORIAN:** Mrs. Harvey Putnam, 1407 Woodland Ave., Duluth, 55803.

AFFILIATED CLUBS OF THE MINNESOTA ORNITHOLOGISTS UNION

AGASSIZ AUDUBON SOCIETY

President: Mr. Gladwin Lynne, 404 East Prairie Ave Warren, Minn. 56716

ALBERT LEA AUDUBON SOCIETY:

President: Mr. Donald Chryst, 2012 Capitol Lane, Albert Lea, Minn. 56007

AUDUBON SOCIETY OF FARGO-MOORHEAD

President: Mr. William Wyatt, 205 Oak Manor Ct., Fargo, No. Dak. 58102

AVIFAUNAL CLUB

President: Mr. Harding Huber, 2109 Squire Lane New Brighton, Minn. 55112

COTTONWOOD COUNTY BIRD CLUB

President: Lester Rupp, Mountoin Lake, Minn. 56159

DULUTH AUDUBON SOCIETY

President: Mrs. Janet C. Green, 9773 N. Shore Dr. Duluth, Minn. 55804

ECOWAY AUDUBON OF PINE RIVER

President: Mrs. Judy Petrich, Route 2, Box 93 Backus, Minn. 56435

GRINDSTONE LAKE AUDUBON SOCIETY

President: Michael Sommer, 100 Third Ave. N.E. Pine City, Minn. 55063

HIAWATHA VALLEY BIRD CLUB

President: Karl Lipsohn Stockton, Minn. 55988

MINNEAPOLIS AUDUBON SOCIETY

President: Mrs. Herbert Richardson, 5215 3rd Ave. S. Minneapolis, Minn. 55419

MINNEAPOLIS BIRD CLUB

President: Mr. Horvey Djerf, 217A Trenton Lane N., Minneapolis, Minn. 55427

MINNESOTA BIRD CLUB

President: Mr. Manley Olson, 1974 W. Summer St. St. Paul, Minn. 55113

MINNESOTA RIVER VALLEY AUDUBON CLUB

President: Mrs. John Eliason, 8851 River Ridge Rd., Bloomington, Minn. 55429

MISSISSIPPI HEADWATERS AUDUBON SOCIETY

President: John Mathisen, 1001 Miles St., Bemidji, Minn. 56601

ST. PAUL AUDUBON SOCIETY

President: Mrs. Isabel Goldberg 1915 Palace Ave. St. Paul, Minn. 55105

ZUMBRO VALLEY NATURE CLUB

President: Ervin Schmidt, 3920 Kohoun Ct. S. E. Rochester, Minn. 55901

THE PRESIDENT WRITES . . .

It's a new year and some new things are happening! If you were at the "paper session" meeting in December, you already know that some very exciting projects and programs are underway in this enormous and diverse area we Minnesotans refer to as "home!"

Salt Lake, in far western Minnesota, appears to be well on its way as a significant project area. The northwest has the excellent Prairie Chicken programs going and Minneapolis Audubon's shorebird project is nearly complete in Hennepin County's Carver Park Reserve.

Some other exciting things, not so positive, are also going on; Ex-president Bill Bryson is still fighting a road, Reserve Mining is still pumping silt into Lake Superior, wild areas, especially wetlands, are still being nibbled to death, and no one knows what impacts copper-nickel mining will have on our north.

In summary, as Dickens once said, "It was the best of times, it was the worst of times . . ., a time like any other." So what? Mostly, MOU should "hang in there!"

Have a favorite project? How about getting it to MOU's Board through your club representative? A new legislature is getting underway, many agencies about whom we should be concerned are planning their next year's work, what would we have them do? For example, MOU passed a resolution that the Department of Natural Resources should make an effort to add to its staff a biologist qualified in non-game management. Does this simply mean that DNR should look for a Dickey-bird specialist? Or, does it mean that we'd like their program to give overall consideration to non-game species as a major management target **and that funds should be diverted to that project?** If the latter — we've got to say it stronger.

I look forward to an interesting year, please help make it so!

. . . Jack Mauritz

EDITORIAL

In the Fall 1973 issue of "The Loon," I suggested that the M.O.U. start a "300 Club," for all those bird listers who had seen 300 or more species in the state. The "club" would be nothing more than one of recognition to these people, and a means of sharing lists and information.

There were a number of negative comments concerning such a club, but, there were also a few positive comments. There are many people in Minnesota who list species just for the fun of it, and many of us conduct friendly competition on year lists and life lists.

So far, I received lists from the following people. These lists have been screened to conform with the accepted list of Minnesota species.

Ron Huber	330
Harding Huber	329
Raymond Glassel	328
Bill Pieper	328
Bob Janssen	326
Janet Green	317
Elizabeth Campbell	314
Kim Eckert	314
Paul Egeland	309
Dick Ruhme	303

If you would like your name on this list, send me your complete list of Minnesota species. Again, I repeat, this is just for the fun of it and to share our birding experiences and records. BOB JANSSEN, Editor

THE BIOLOGY OF BALD EAGLES IN MINNESOTA

by *Thomas C. Dunstan,

**John E. Mathisen,

***James F. Harper

Introduction

The Bald Eagle (*Haliaeetus leucocephalus*) is a North American species that has been studied extensively in some geographic areas (Bent, 1937; Broley, 1947, Herrick, 1934), but until the last decade little was known about this species as a breeding and wintering bird in Minnesota although Roberts (1932) and several others have published occasional notes. Dunstan (1971) summarized Bald Eagle research in Minnesota from 1962 to 1971 and presented some information about various studies and research techniques. In this paper we present additional information about various aspects of the life history of Bald Eagles in Minnesota.

Chronology of Activities

Spring migration.—Spring migration begins during the last week of February and the first two weeks of March at the time of spring break-up and when open water is present along the Mississippi and other rivers and streams throughout the state. Birds that wintered along the Mississippi from Tennessee to Minnesota begin migration and by 1-10 March adults are seen close to nests used in previous years or are seen building new nests.

Courtship.—Adults begin courtship displays by the nests consisting of high soaring flights followed by swift stoops and swoops including chase sequences during early March. We have not seen copulation but Herrick (1934) states that copulation takes place before, during, and after nest building.

Nests.—Nests are composed of sticks picked up from the ground or broken from dead trees. New nests are from one-half to one meter in

depth and previously used nests are built up about 7 to 14 cm each year and may be 3 meters in depth. The diameter across these platform nests is from 1.3 to 2.1 meters and the top is composed of various sedges and mosses that are picked up and carried from melted, swampy areas. Later in the summer, aquatic vegetation such as bulrush (*Scirpus* sp.) and cattail (*Typha* sp.) is brought to the nest. Construction of new nests and repair of old ones was observed in both the fall and spring on the Chippewa National Forest. Mathisen (1968a) pointed out that the typical Bald Eagle nest in Minnesota is cone-shaped and is located below the crown of a live red or white pine (*Pinus resinosa* and *P. strobus*) in an upland area. This is in contrast to the nests of Ospreys (*Pandion haliaetus*) which are built on top of dead conifers in lowlands and are not usually cone-shaped (Dunstan 1973b; Mathisen, 1968a). The differences in nest site preference minimizes nest site competition between these two fish-eating species.

Egg laying and incubation.—Eggs are laid, usually one to three per clutch, about 16 March to 3 April when snow is still present and daily temperatures are below freezing. The female (distinguished by larger body size and more musical call) does most of the incubating, although, Herrick (1934), Charles Ellis (Pers. comm.) and others state that the male does participate in incubation. Our data on this aspect of the life cycle are limited. The incubation period is a moot point and appears to be about 34-35 days (Herrick, 1934). Eggs hatch about 22 April to 10 May and the young remain in the nest until fledging about 16 July to 12 August.

Behavior at the nest

The roles of both parents at the nest have been described in great detail (Broley, 1947; Herrick, 1924; 1934; and others). From our observations in Minnesota we feel the behavior of the adults is similar to that elsewhere and we will restrict our comments to feeding activities.

Food habits.—No detailed food habit studies have been published on Bald Eagles nesting in the interior although several studies have been done on eagles breeding on the coasts. Since 1967 we have made observations of feeding activities at nests and have also collected prey remains from in and below 19 nests. During the summer of 1972 one of us (JFH) made detailed observations at two nests and gathered both qualitative and quantitative data on food habits (Harper, 1974). From our combined efforts we determined that there are two peaks of activity during a day when food is brought to the nest, the major one just after sunrise and the other in late afternoon. The major food is fish and the average number of fish brought per day at one nest ranged from 3.8 to 4.5 during the pre-fledging, early fledging, and late-fledging periods. During the pre-fledging period, the adult female fed the nestlings and herself at the nest but by the last week of July both adults merely deposited fish on the nest platform and the young competed for possession and fed themselves. Most of the food fish are picked up dead although some are captured alive in shallow water during spawning. Fish were the primary prey and bullheads (*Ictalurus* sp.) ranked first in frequency of occurrence followed by suckers (*Catostomus* sp., *Moxostoma* sp.), northern pike (*Esox lucius*) and several species of centrarchids and other species. Birds and mammals were not common prey remains. A more detailed account of food habits is presented in another paper (Dunstan and Harper, in press).

Pectoral girdles were the most commonly found bones of bullheads and

suckers, and dentaries and crania were the most common remains of northern pike and largemouth bass.

The majority of the time spent at the nest was involved in maintenance activities or "loafing." Young birds preened during early morning and irregularly throughout the day and the rest of the time they layed down on the nest platform or perched near the nest, often in the shade and out of the wind.

Behavior away from the nest

Little information is known about the behavior of fledgling or adult Bald Eagles when they are away from the nest. In 1969, we (TCD and JEM) initiated color-marking studies with nestlings in order to study fledgling movements and to better understand the fledging and dispersal period (Dunstan, 1971). These color-marking studies were followed up with radio telemetric studies and because of these techniques we now know that fledglings spend up to 2½ months in the parental home range before dispersing in late September and October followed by the fall migration from October through November. The adults remain within the home range until the lakes and rivers freeze and then are absent until February and March.

Productivity and mortality

Productivity data have been accumulated for over a decade on the Chipewewa National Forest by Mathisen, primarily from aerial observation. The latest inventory shows a total of 156 known nesting sites, comprising about 107 breeding territories (Table 1).

Nesting success, or the number of eagle pairs successfully rearing at least one eaglet, has ranged from 40 percent in 1964 to 63 percent in 1968. Average nesting success from 1964-1974 was 56 percent.

Young per active nest, which takes into account brood size as well as success, has ranged from 0.50 in 1964 to 1.02 in 1973. The average for the period 1964-1974 was 0.84 young per active nest.

TABLE 1
COMPARISON OF BALD EAGLE NESTING DATA, 1964 - 1974
CHIPPEWA NATIONAL FOREST

Year	Known Nests	Observed Nests	Active Nests		Successful Nests		Average Brood Size at Fledging	Young/Active Nest
			No.	%	No.	%		
1964	55	46	30	65	12	40	1.2	0.50
1965	76	58	39	67	22	56	1.3	0.74
1966	107	70	52	74	19	61	1.5	0.90
1967	135	67	49	73	21	55	1.4	0.79
1968	142	105	52	49	33	63	1.5	0.96
1969	139	117	60	51	29	48	1.5	0.73
1970	141 (106)	125 (93)	65	52 (70)	35	54	1.8	0.95
1971	143 (107)	130 (99)	65	50 (66)	40	61	1.5	0.94
1972	142 (110)	137 (107)	73	54 (68)	40	55	1.6	0.96
1973	147 (109)	141 (108)	70	50 (65)	42	60	1.8	1.02
1974	156 (107)	149 (106)	68	46 (64)	40	59	1.3	0.79

Average 56%

Average 0.84

Numbers in () are territories

Little information is available to assess the magnitude of direct mortality among Bald Eagles on the Chippewa; however, various hazards have been identified through the years, such as shooting, accidental trapping and pesticides. A number of fledglings have been recovered on the ground and taken into captivity for later release.

Fall Migration

As of the 1974 breeding season a total of 188 nestling Bald Eagles have been banded on the Chippewa National Forest and another dozen banded adjacent to the forest. The recoveries to date including one other than ours from our research area are shown in Figure 1.

The general trend is for a more southern recovery ranging in longitude from Texas to Alabama. All but one of the recoveries were in the vicinity of water and near wintering waterfowl. Descriptions of three of these recoveries have been published (Dunstan, 1969; 1973a; Janssen, 1971), and a more detailed history of our studies on dispersal, migration, color-marking, and tagging with radio transmitters was described by Dunstan (1971). The major period of fall migration is in November (Reese, 1973).



Figure 1. Map of locations of 5 banding recoveries for Bald Eagles banded in the Chippewa National Forest area. Two of the 5 were released alive. For further discussion see Dunstan, 1969; 1973a; Janssen, 1971.

Environmental contaminants and human disturbance

Environmental contaminants.—Since 1969 we have attempted to determine the presence and influence of various

chlorinated hydrocarbons, polychlorinated biphenyls (PCB), and mercury on the Bald Eagle population in our study area. With the help of the Patuxent Wildlife Research Center, the Pesticide Lab of South Dakota State University, and the U.S. Fish Pesticide Laboratory at Columbia, Missouri we have documented the presence of DDT, DDD, DDE, PCB, dieldrin, and mercury in the tissues of adult and nestling eagles and in eggs (Dunstan, 1971; Wiemeyer, *et al.*, 1972). However, the amounts of these contaminants and the effects on the eagle population in our study area is a moot point and needs further study. The average residues from five Minnesota eggs were: 9.57 ppm DDE, 1.02 ppm DDD, 0.99 ppm dieldrin, and 7.7 ppm PCB's. Mercury averaged 0.3 ppm (Wiemeyer, *et al.*, 1972).

Favored prey species have been collected from lakes fished by eagles and were analyzed for pesticides, PCB's and mercury. The preliminary results indicated relatively low amounts of these residues. The results of whole fish analysis of two prey species from lakes fished by both Ospreys and Bald Eagles were relatively low in DDE, DDD, DDT, and PCB residues (Dunstan, 1973b). By intensively studying dispersal and migration of eagles from our study area we hope in the near future to have the data to support the first 365-day-a-year habitat management program for a migrating raptor.

Human disturbance. — It is generally agreed that the activities of man can cause detrimental affects to Bald Eagles. Mathisen (1968) investigated the potential of human disturbance on nesting eagles in the study area by classifying Bald Eagle nest locations by "wilderness factors" using criteria such as amount of human activity near nest, distance to and type of nearest road, modification of surrounding habitat, and general remoteness of the nest site (Mathisen, 1968b). It was concluded that human disturbance as it existed in the early and mid-1960's was within the tolerance limits of nest-

ing eagles. Since that time human activity in the form of outdoor recreation and timber harvesting during the breeding season from March through September has increased. However, most of the human activity is limited to the nestling or fledgling stage of development. Mathisen (1968b) elaborated on fishing and timber cutting seasons and concluded that human disturbance at that time was not a significant factor affecting nesting success or nest occupancy. However, Juennemann (1973) concluded that eagles nesting in areas relatively more distant from human activities had better productivity than those closer. Juennemann pointed out specific examples of disturbance to eagles caused by persons cutting timber and trapping beaver.

To date, about 350,000 snowmobiles are registered in Minnesota. These off-road vehicles have made fishing and trapping sites located in the more remote eagle breeding areas of north central Minnesota accessible to the average person who previously seldom ventured out in winter and early spring. Besides being used for fishing and trapping, snowmobiles are ridden over the landscape for fun. There is also an increase in cross country skiing in the last three years which provides another unmeasured disturbance to wildlife during the cold season. In mid-March of 1972 during the incubation period we made aerial or ground observations at 13 territories and found evidence of recent snowmobile activity present at 10 of these. Four of these nests were not active and one of these that we know was active earlier was deserted after snowmobile activity within 50 meters of it. Four of the remaining six nests had one young present at the time of the summer census, and two others had two young. The nest that was deserted has not been used since, and an alternate nest located ¼ kilometer away from the area of heavy snowmobile activity has been used in 1973 and 1974.

It can be assumed that if eagles in-

cubating eggs in freezing temperatures leave the nest because of disturbance, the eggs and/or embryos may freeze or the nest may be abandoned. Juennemann (1973) pointed out one case of a nest being abandoned after an adult was disturbed and left the nest for only five minutes. In March of 1974 the U.S. Fish and Wildlife Service took eggs from two nests on the Chippewa, one with two eggs and one with one, and placed plastic-filled goose eggs in each. One of the two nests had been abandoned when observed the next day and the other was abandoned a month later. Whether or not these two nests will be used again next year remains to be seen and even if they are we will not know if the original pair returned.

Overall productivity on the Chippewa has not decreased much since the advent of snowmobile activity and the overall young per active nest even in 1974, when there was April snowmobile activity, was within the average for the past 10 years (Table 1). The effect of increased winter activity by humans during the incubation period on nest desertion and territory abandonment, and productivity merits further study.

Wintering Bald Eagles

Immature (dark-plumaged) birds begin gathering along the Mississippi and St. Croix Rivers south of St. Paul and Stillwater in September. Juveniles, subadults, and adults remain along the open water areas in the vicinity of Pool 3 and Dams 2 through 8. The major wintering concentrations for the state are at Prescott and Reads Landing with smaller groups of birds located along the open water below the dams and among the many islands of the Upper Mississippi Wildlife and Fish Refuge (Table 2). About 30 to 50 eagles winter in the state annually. Several adult eagles and between 30 and 50 Common Goldeneyes (*Bucephala clangula*) and Common Mergansers (*Mergus merganser*) winter as far north as Cohasset, Minnesota (Itasca County) in an open water area caused by the Clay Boswell Steam Electric Station.

Between 1,000 and 1,200 Bald Eagles winter along the Mississippi River from Minnesota to Kentucky. Night roost sites are in secluded glens on both the Wisconsin and Minnesota shores. Eagles leave the night roosts about sunrise and fly to the open water where they watch for floating dead

TABLE 2
Sighting of wintering Bald Eagles along the
Mississippi River from Hastings to Winona, Minnesota.

Date	Location	Number of Immatures	Number of Adults	Total
28 March 1971	S. End Lake Pepin	2	1	3
2 April 1971	Chippewa River-Lake Pepin	1	0	1
3 April 1971	Chippewa River-Lake Pepin	0	1	1
9 April 1971	Wabasha	1	0	1
17 March 1972	Reads Landing	6	13	19
17 March 1972	Chippewa River-Lake Pepin	1	2	3
2 January 1972	Wabasha*	1	7	8
2 January 1972	Reads Landing*	1	2	3
2 January 1972	Alma*	1	2	3
21 December 1973	Prescott	0	4	4
28 December 1973	Reads Landing	1	7	8
29 December 1973	Reads Landing	3	12	15

*Aircraft census (all others roadside census)

fish from trees or ice perches or while flying. As many as 13 eagles have been seen perched in a single tree at Reads Landing while others soared or perched in other trees. Fish are picked up and either eaten while in flight or carried back to a feeding perch away from other eagles and eaten. Good food habit data for this wintering population is not yet available. At mid-day, eagles sunbathe out on the many islands and along sloughs and return to the river to feed again about one hour before sunset.

LITERATURE CITED

- Bent, A. C., 1937. Life histories of North American birds of prey, pt. 1 U.S. National Mus. Bull. 167:1-409.
- Broley, C. L., 1947. Migration and nesting of Florida Bald Eagles. *Wilson Bull.*, 59:3-30.
- Dunstan, T. C., 1969. First recovery of a Bald Eagle banded in Minnesota. *Loon*, 41:92.
- Dunstan, T. C., 1971. An ecosystem approach to the study of Minnesota's Bald Eagles. *Loon*, 43(4):109-113.
- Dunstan, T. C., 1973a. Bald Eagle from Minnesota recovered in Texas. *Loon*, 45(4):132.
- Dunstan, T. C., 1973b. The biology of Ospreys in Minnesota. *Loon*, 45(4):108-113.
- Dunstan, T. C., and J. F. Harper, (In press). Food habits of Bald Eagles in north-central Minnesota. *J. Wildl. Manage.*
- Harper, J. F., 1974. Activities of fledgling Bald Eagles in north-central Minnesota. M. S. Thesis, Biological Sciences, Western Illinois University, Macomb, Illinois 68p.
- Herrick, F. H., 1934. *The American Eagle*. D. Appleton-Century Co., New York, N.Y. 267p.
- Herrick, F. H., 1924. Daily life of the American eagle: late phase. *Auk*, 41:389-422, 517-541.
- Janssen, R. B., 1971. An eagle visits a feeder. *Loon*, 43(4):21-22.
- Junenemann, B. G., 1973. Habitat evaluations of selected Bald Eagle nest sites on the Chippewa National Forest. M. S. Thesis, Entomology, Fisheries, and Wildlife, University of Minnesota, St. Paul, Minnesota.
- Mathisen, J. E., 1968a. Identification of Bald Eagle and Osprey nests in Minnesota. *Loon*, 40(4):113-114.
- Mathisen, J. E., 1968b. Effects of human disturbance on nesting of Bald Eagles. *J. Wildl. Manage.* 32(1):1-6.
- Reese, J. G., 1973. Bald Eagle migration along the Mississippi River in Minnesota. *Loon*, 45(1):22-23.
- Roberts, T. S., 1932. *The birds of Minnesota*. University of Minnesota, Vol. 1, 335-340.
- Weimeyer, S. N., F. M. Mulhern, F. J. Ligas, R. J. Hensel, J. E. Mathisen, F. C. Robards, and S. Postupalsky, 1972. Residues of organochlorine pesticides, polychlorinated biphenyls, and mercury in Bald Eagle eggs, and changes in shell thickness—1969 and 1970. *Pesticides Monitoring Journal*, 6(1):50-55.

* **Biological Sciences, Western Illinois University, Macomb, Illinois**

** **Chippewa National Forest Headquarters, Cass Lake, Minnesota**

*** **601 45th Street, Moline, Illinois**

RARE SEA DUCKS AT GRAND MARAIS

by Janet C. Green

The harbor at Grand Marais is the goal of many North Shore field trips and the journey up the shore is often quickened by the hope that the harbor will contain some unusual arctic wanderer. On December 12, 1974 Bob Janssen and I decided to extend a birding trip, whose planned goal had been Two Harbors, all the way up the shore, beckoned on by a clear day and a calm lake as well as the unknown transients resting in the Grand Marais harbor.

There were very few birds on the lake in the Duluth-Silver Bay portion of the shore but when we got to Lutsen birding began to improve. Off the mouth of the Poplar River four Oldsquaw were joined by a single White-winged Scoter. Although they were quite far out, we could spot them easily on the calm lake — a condition unusual in early December. Good Harbor Bay, traditionally the surest place to see Oldsquaw on the whole shore, did not let us down. Flocks totalling about 100 were diving far off shore and a single White-winged Scoter was swimming near the beach. Upon arriving at Grand Marais our attention was immediately taken up by the 500 or more Herring Gulls that were standing all along the beach, docks and inner breakwater. Diligent searching with scope and binoculars at close range failed to find a single dark-eyed adult or light-primaried immature, and we thus had to discard our hopes of seeing a Thayer's or Iceland Gull. We could find in all those gulls nothing more exotic than a first year immature Glaucous Gull.

Giving up on the gulls we went to check the bay on the east side of town where we counted 25 Common Goldeneye which was more than we had seen all day. Feeling the wind starting to come up we decided to quickly drive up to Paradise Beach where the shoals around Marr Island sometimes contain

interesting ducks. We were disappointed in only being able to see there a few Common Goldeneyes plus a drake Common Merganser in the now gray chop which earlier had been a calm blue lake.

The rising wind plus the drive back to Duluth were beginning to make us think of ending our birding, but driving past the harbor at Grand Marais without at least a hasty scan for ducks is unthinkable so we drove to the Coast Guard station and looked the harbor over again. A flock of 25-30 ducks toward the west shore looked interesting and we drove around for a closer look, parking at the dock near the fishing shacks between the power plant and the breakwater.

We spent the next hour there, having one of the best birding experiences of our lives, as we found and identified in that flock of primarily female and immature Common Goldeneyes the following: a female (or immature) King Eider, a female Barrow's Goldeneye and a female (or immature) Harlequin Duck. The Harlequin we spotted first, swimming close to the rocks at the base of the breakwater. The female Barrow's Goldeneye was in the flock of goldeneye and stuck out immediately when I went over them with the spotting scope because of her bright orange-yellow bill. As Bob was watching the Barrow's Goldeneye trying to confirm the identification by looking for other features, the eider swam into the field of view of the spotting scope and I couldn't get him back to looking at goldeneyes for quite a while. Any eider for him was a life bird. When I looked at the eider my impression was that it was not a Common Eider, which I've seen by the hundreds on the Maine coast, because of its size which seemed small and the shape of the head. But we did not finalize the identification as a King Eider until we had studied it for some

time and until it had come much closer. In fact all the ducks worked their way close to shore and we had a chance to examine all the rare species as close as 50 feet off the dock. The Barrow's Goldeneye kept within the flock of Common Goldeneyes while the Harlequin Duck and the King Eider swam and dove around the edge or through the middle of the flock.

In that hour of observing we forgot the cold wind that was making whitecaps outside the harbor, although inside it was still almost calm. However, I had to get my fingers thawed out to make the following notes on the plumages of the ducks.

Harlequin Duck — A small diving duck, smaller than a goldeneye; all dark including wings which were slightly extended when diving; dull, diffuse white patch behind bill and bright, round white spot on cheek; while resting on water, tail cocked.

Barrow's Goldeneye — Very similar to female Common Goldeneye but head shape in the head-up position was different, i.e. more rounded and slightly larger with a more scraggly hind neck; bill slightly smaller than Common Goldeneye and was bright orange-yellow throughout except for a small black tip (nail).

King Eider — Brownish diving duck of the sea duck type (wings partially extended when diving) with obvious eider head shape; size was about that of female Mallard; wings and back — medium brown; breast — warmish brown (reddish cast); head — crown and nape were medium brown contrasting with face which was lighter brown; lighter, tan mark in semicircle over eye and lightest part of head was behind and under bill and was bisected by a dark line which seemed a posterior extension of commissure (mandible line); bill — dark brown with feathering extending down mid-line quite far below eye, side processes of upper mandible did not extend close to eye and were rounded at tip; profile — not straight, sloping profile from forehead to bill like Common Eider, but rather had a more rounded forehead with a break in slope at the bill.

On December 14, 1974 Bill Pieper and Don Bolduc made a trip up to Grand Marais and found the Harlequin Duck and King Eider but could not find the Barrow's Goldeneye in the lightly falling snow.

Janet C. Green
9773 North Shore Drive
Duluth, Minnesota 55804

POSSIBLE SAY'S PHOEBE NESTING AT BLUE MOUNDS STATE PARK

by Kim R. Eckert

Prior to 1974 there have been only two sightings of the Say's Phoebe in Minnesota: on September 3, 1963 near St. Charles in Winona Co. and on the same date in 1973 near Hills in Rock Co. A small colony had been breeding for years in Lyon Co., Iowa (adjacent to Rock Co. on the south), and it had been suspected that this species might spread into the southwest corner of Minnesota (like the Blue Grosbeak). During the spring and summer of 1974 two Say's Phoebes were present at Blue Mounds State Park in Rock Co. and may have nested.

It all began on April 13 when Bob Janssen, Bill Pieper and Ray Glassel were birding at Blue Mounds as a result of my luck the day before in finding a Mountain Bluebird and Prairie Falcon there. They found the bluebird, couldn't find the falcon, but made up for it by finding a Say's Phoebe along the park's hiking trail not far from the main park drive. Bob called me that evening to report on their find, and on the next day I returned to their spot but found nothing. The assumption was that the bird was merely a stray and was long gone. But on April 27 Bob Janssen, Paul Egeland and Dick Ruhme met me at Blue Mounds for some birding. We didn't see much until we reached the Sioux quartzite cliffs at the southeast part of the park just north of an old quartzite quarry. Sitting atop an oak at the edge of the cliffs was an adult male Say's Phoebe singing away. Its call was a slurred whistle "pee-ur," similar to a Red-tailed Hawk or Eastern Wood Pewee. None of us recognized the call until the bird was briefly spotted before it flew off below the cliffs. It is assumed that this was the same individual seen two weeks earlier along the hiking trail about 1½ miles north. The next

day, April 28, I returned alone to this same spot along the cliffs and again found the singing male on its singing perch. From that day on its call was usually a "pr-r-reet" with rising inflection and only occasionally would it give its "pee-ur" call. The bird was always quite shy and never allowed approaches of within about 50 feet. The phoebe would either sit in an oak at the edge of the cliffs, feed along the quartzite ledges just west of the cliffs, or fly to the pasture below the cliffs to the east. The bird would frequently disappear then seem to suddenly reappear from a different direction, so that I suspected that there might be two individuals. Sure enough, the singing male eventually chased up a second bird and they finally flew in view together briefly before disappearing. The obvious possibility then occurred to me that the second bird was a female and that they might become a nesting pair (I later learned that Bill and Lori Keitel of Worthington had seen what had to be the same pair on April 21 just south of here on the other side of the quarry).

The next day, April 29, I again returned to the area with Brent and Dayle Haglund of Sioux Falls and Jim Brandenburg, a birder-photographer from Worthington. Since the Say's Phoebe had only been on the Minnesota hypothetical list, we were hoping Jim could get a photo of the bird to substantiate it for the state's regular list. We quickly found the male at the usual spot but again it was quite shy and Jim could not get a picture. I next returned to the area on May 4 with Ron and Hap Huber and Karol and Jerry Gresser. The male was again singing away and easy to locate, but when Hap tried to approach with his telephoto lens, the bird shied away.



SAY'S PHOEBE AT BLUE MOUNDS

Photo by Steve Blanich

Hap took 13 long shots of the phoebe but unfortunately I'm told not one of them turned out. On May 11 I was back with Brent Haglund hiking below the cliffs and we again could hear the male but could not see him or the female.

The second (female?) bird had not been seen since April 28, but on May 19 Steve and Jo Blanich, Terry Savaloja and I managed to find both birds at the same spot. Steve had his telephoto along and though the day was overcast and though the phoebe was its usual uncooperative self, Steve took a few long shots, at least one of which I'm told barely came out and is recognizable. This sighting of both birds re-

newed nesting hopes, but when I next checked the area on May 23 and 27 neither bird could be found. But as I searched the cliffs on the 27th for signs of nesting (not a easy job since the cliffs average from 40 to 80 feet high, and the phoebe would put its nest on a ledge with protecting overhang above, thus making a nest hard to spot from above or below), I found an empty nest at the bottom of a large crevice or chasm at the edge of the cliffs. This was within the male's singing territory so I collected the nest and some bits of bluish egg shell fragments which lay nearby. I knew that the Say's Phoebe eggs were whitish and that these fragments were not the

phoebe's, but the nest fit the description and photograph for Say's Phoebe in Bent's Life Histories (also none of the shell fragments were in the nest and may have had no connection with it). This nest was eventually delivered to the Bell Museum of Natural History where Dr. Dwain Warner studied it and thought that while the eggshells were definitely not Say's Phoebe, the nest looked very much like a Say's Phoebe's — though it looked to him to be a year old nest! I have not talked to Dr. Warner about this yet, so whether or not this was Minnesota's first Say's Phoebe nest I don't know. It is possible that this was a year old nest from 1973 (Blue Mounds had been seldom birded), or it is possible that the 1974 pair was unsuccessful in raising young (with the female on the nest and thus not visible in early and mid May), abandoned the nest and moved on.

I met Jan Green, Marj Carr, Liz and Rex Campbell on June 4 at Blue Mounds and they also hoped to see the phoebe, but because of the abandoned nest and since I had failed to find the birds since May 19, I was not optimistic. However as we hiked along the cliffs toward the old Say's Phoebe spot, we found the male singing away in a new territory, about 200 yards north of the old one! It then seemed likely that the first nesting had failed and that the pair set up a new terri-

tory. The female was not seen that day, but on June 10 I found both birds together at this new spot, apparently investigating some dried grasses on a ledge about 30 feet up on a bare cliff face. The phoebes would fly up to the ledge several times as if looking for a nest site or as if gathering grasses for nesting material. But there was also a House Sparrow nearby who apparently wanted the same thing and kept chasing the phoebes away. Nothing came of this activity since I next returned on June 26 with Paul Egeland to this spot and neither birds nor nest were around. I checked this area again on July 14 and the singing male was again present, but for what was to be the last time. I looked later on July 25 and 30 and August 7 and 23 for adults, young or nest, but nothing was ever found after July 14.

In conclusion, a singing male Say's Phoebe was present at Blue Mounds from April 13 through July 14, a presumed mated female was also present (though not as much in evidence) from April 21 to June 10, two possible breeding territories were staked out, and one possible abandoned nest was found May 27. Whether nesting occurred or not, the quartzite cliffs at Blue Mounds would be a good place for this species to nest.

**Box 47
Garretson, South Dakota 57030**

MORE BIRD KILLS AT KROC-TV TOWER, OSTRANDER, MINNESOTA

by Forest V. Strnad

In the March 1962 issue of **The Flicker** I wrote about five separate bird kills during the Fall of 1961 at KROC-TV tower, located in the southwest corner of Fillmore County, Section 8 of Beaver Township, three miles south of Ostrander, Minnesota or 37 miles south of Rochester.

This tower was put into service in December 1960. During the Fall of 1961 one of the transmitting engineers called Carl Johnson, Rochester, to tell him that birds had been killed during the night, which had been one of heavy fog. The weather forecast for Monday, September 4th, Labor Day, was for rain. Sunday it had been mostly cloudy, with showers threatening. The high was 70°. Carl and I drove down to the tower and picked up 1548 birds that had been killed which were not too badly damaged by ants, crickets or other of nature's clean-up patrol. At that time the lawn had been seeded but there was no grass and it made it easy to see the dead birds lying all around the tower, on the bare ground, on a hay rack or a trailer to the east of the transmitting building, or in the pasture to the south of the tower.

When 1200 feet of steel television tower projects up into a foggy September sky at night and 114 feet of antenna pierces the sky beyond the tower, so that you have a height equal to that of a 131 stories building, 2,642.2 feet above sea level you know that migrating birds are bound to collide with it on a rainy, foggy night.

There are five levels of guy cables, three per level. These fifteen cables are made up of a total of 14,150 feet of cable, nearly three miles of cable. The total length of individual wires is 445,919 feet or 84½ miles of wire.

This television tower weighs 250,000

pounds, the antenna another 17,500 pounds, the transmission line 9,000 pounds, the cable guys 37,500 pounds and the foundation 1,073,000 pounds. The latter represents 7,155 cubic feet or 265 yards of concrete. That is a combined weight of 1,387,000 pounds.

There are four flashing hazard beacons with two 620 watt bulbs each. Fifteen obstruction lights, with one 111 watt bulb each. Total power consumed by the lights is 6,625 watts. The beacons flash automatically and all lights are controlled by photo electric cells which cuts them on and off automatically depending upon the light intensity.

This structure is designed to withstand 97 miles per hour true wind velocity. The top of the tower will deflect 5½ feet with the wind load.

In the December 1963 issue of **The Flicker**, John Feehan, Rochester wrote about a bird kill at this tower on September 18, 1962. The temperature on the 18th was 70° with northwest winds 10-20 miles per hour, with a low of 45° predicted for the night. Wednesday, the 19th it was to be partly cloudy and windy with a high of 72°. There was a fog on Tuesday night and Wednesday morning. John write, "Jerry Saxton engineer on duty saw so many birds falling down that he called Carl Johnson at 1:30 a.m. to tell him about the incident."¹ John and Carl Johnson went down to investigate the situation the next morning, and John wrote, "The birds covered the ground like leaves."² They identified 28 species and estimated the kill between 1200 and 1500 birds. None were recovered.

After we moved from Wyoming, Minnesota to Stewartville, Minnesota

¹ **The Flicker**, John Feehan, p.111

² *Ibid.*

in June 1972 I made plans to resume my interest and study of bird kills at KROC-TV tower. I wrote to the personnel at the tower in August asking them to call me collect if they noted any bird kills at the tower.

The forecast for Tuesday, September 12, 1972 was for mostly cloudy and cooler with temperatures in the low 50s with a chance of showers. It was very foggy at 7:45 a.m. when Jim Hanson, transmitting engineer called to say there had been quite a kill at the tower. Carl Johnson, my wife, Kirsten and I drove down to the tower, which is 25 miles south of Stewartville. We picked up birds from 9:00-10:10 a.m. and had a total of 183 birds. We saw six piles of feathers, indicating that birds had been killed and eaten by some animal, perhaps a neighborhood house cat from the farm yard 200 yards to the northeast of the transmitting building and tower.

While walking in the pasture to the south of the tower Carl spotted a flock of 10-15 Black-bellied Plovers. The black spot under the wing was visible even though there was still a heavy fog. We saw them later after we finished picking up the birds. I mention these birds for it shows that they migrate through the area. We have found only one shorebird species killed at the tower, a Pectoral Sandpiper in 1961.

On Sunday, September 24th it was cloudy and the temperature was in the mid-60s. Showers were predicted that night with temperatures cooling. Carl, his brother, Ted, and I drove down to the tower arriving around 2:00 p.m. It was foggy and 55°. That day we could see more of the tower than on the 12th even though it was quite foggy.

We picked up three species of birds: a Northern Waterthrush, a Bay-breasted Warbler and a very decomposed bird which appeared to be a Chestnut-sided Warbler. The waterthrush was found 55 yards southwest of the tower and transmitting building, in the pasture, and the other two birds to the

northeast of and within twenty feet of the building.

Occasional showers and thunder-showers were predicted for Monday night and Tuesday, September 24th and 25th in 1973 with a low temperature overnight in the upper 50s and a high Tuesday in the low 60s. It was very foggy the morning of the 25th, the first heavy fog since Labor Day when the first fog often appears in this vicinity of the State. I checked the tower grounds and found evidence of only one kill, a pile of feathers. The bird might have been dead several days and run over by the power mower.

Buell Johnson, transmitting engineer on duty, called me at 8:00 a.m. on Friday, September 28th to say that there had been a light kill with some two dozen birds around the transmitting building and tower and on the driveway to the west of the building.

As I drove south toward the tower, from U.S. Highway #16, I kept looking for the tower in the fog. It wasn't until I got south of Ostrander and within 2½ miles of the tower, that I could see it at all. I was within a half-mile of the tower before I could even faintly see the top of the tower and the antenna on top. Normally you can see the tower from nine miles or more away, from U.S. Highway #16.

I arrived at the tower at 8:30 a.m. and began picking up birds on County Road #1, which runs in a north-south direction by the tower on the west. At least ten birds were not kept because they had been run over by traffic on the road. I collected 30 birds from the roadway and shoulders and ditches on either side. One Common Flicker, was found alive and flopping around with a broken wing in the ditch. I had to kill this bird.

As I moved from County Road #1 to the driveway, a 150 yard roadway, leading into the transmitting building and tower, I saw more birds had been killed than the engineer had realized and more than had been killed on September 4th, 1961. A number of birds

had been stunned and bruised by striking the tower or the cable guys and were found alive when I walked along the fence row to the north of the transmitting building or along the building itself. Many of these birds flew off as I approached them, though many were still a bit wobbly. The crippled ones I found in the grass and around the tower and transmitting building I had to kill with the use of a plastic bag. These birds were saved, as well as the dead ones I picked up and delivered to the James Ford Bell Museum of Natural History at the University of Minnesota.

I worked from 8:30-11:30 a.m. picking up the dead birds but was not able to get all that I found when I had to leave at 11:30 a.m.

I took these birds to Rochester where Carl Johnson and I sorted them as best we could before I took them home to put into our freezer before taking them to the Bell Museum. Thankfully I have an understanding wife. I put these birds in double plastic lawn bags to prevent any bugs from escaping into the freezer.

I received a call from Jim Hanson, transmitting engineer on duty on Sunday, the 30th that there had been another kill, but in as much as I was just about ready to begin Sunday worship services I could not go. A call to Carl Johnson to help and he and his brother Ted, and Ervin Schmidt, president of our Zumbro Valley Nature Club went down to look over the situation.

They estimated that in eight plots on the tower grounds, 60'x60' there were at least 860 dead birds. No count was made of the pasture to the south of the tower. Carl did report that many birds were lying in the driveway.

Among the birds noted in the kill was a Pied-billed Grebe, a first for this species for a tower kill here. There was a Northern Parula in full adult plumage and two Winter Wrens and two Scarlet Tanagers, one with red in the wings.

While no skunks or Common Crows were noted feeding on the dead birds Carl did see two neighborhood cats in

the area. He estimated that there were over 1200 birds killed.

On October 3rd I drove down to the tower again and I met Jim Hanson. He was digging a hole northeast of the transmitting building to bury some of the partially decomposed birds that he had cleaned up from around the building. Apparently there had been two additional kills on Sunday-Monday and Monday-Tuesday nights. Among the birds to be buried was an American Coot.

While looking over the pasture area I found a bird on one of the fence posts enclosing the tower cable anchor. No doubt a hawk had taken it there to eat. On the ground in the pasture I found two species of birds of interest. The Yellow Warbler had not been found this year and the Virginia Rail was a new species found killed at the tower. The first cable anchor in the pasture to the southwest of the tower is located some 150 yards out from the tower and the second an additional 140 yards away.

The anchors and cables to the northeast and northwest of the tower do not seem to be a factor in bird kills as we have not found dead birds under these cables.

It was clear on September 1st and 2nd this year, 1974, which was Labor Sunday and Labor Day. The first kill came ten days later on the 12th. The weather forecast said, variable cloudiness and colder with 30 percent chance of occasional rain or drizzle. The low Wednesday-Thursday night was in the mid-40s and the high Thursday in the upper 50s. I received a call at 7:45 a.m. from the personnel at the tower and I arrived at 8:50 a.m. to begin recovering dead birds.

This time I kept the birds separated according to the area where I recovered them. South of the tower, on the tower grounds, I recovered 330 birds. On the north side of the tower and driveway leading into the tower and transmitting building I recovered 154 birds. In the pasture to the south I recovered 274 birds. In addition I recov-

BIRDS KILLED AT KROC-TV TOWER, OSTRANDER, FILLMORE COUNTY, MN.,

1961, 1962, 1972-1974

	1961	1962	1972	1973	1974	TOTAL
Pied-billed Grebe				1		1
Virginia Rail				1		1
Sora	10		2	2	2	16
Yellow Rail	1					1
American Coot				1		1
Pectoral Sandpiper	1					1
Common Tern	1					1
Yellow-billed Cuckoo		2				2
Black-billed Cuckoo		2				2
Common Flicker				3		3
Yellow-bellied Sapsucker				10		10
Empidonax (Species?)					19	19
Great Crested Flycatcher	2			1		3
Eastern Phoebe	2					2
Yellow-bellied Flycatcher	3		1			4
Traill's Flycatcher	7		1			8
Least Flycatcher	1	1	1	1		4
Eastern Wood Pewee					1	1
Blue Jay	1					1
Red-breasted Nuthatch	6					6
Brown Creeper	9					9
House Wren	6		1	3		10
Winter Wren				2		2
Long-billed Marsh Wren	4		2	1		7
Short-billed Marsh Wren	11		1	1	1	14
Gray Catbird	81	12	3	40	16	152
Wood Thrush	1	1	1	2		5
Hermit Thrush		1		1		2
Swainson's Thrush	88	74	18	24	50	254
Gray-cheeked Thrush	21	9	1	11	28	70
Veery	25		6		38	69
Golden-crowned Kinglet	12			2		14
Ruby-crowned Kinglet	1			6		7
Cedar Waxwing				4		4
Yellow-throated Vireo	1			3	1	5
Solitary Vireo	1	4	2	23	10	40
Red-eyed Vireo	310	23	27	39	117	516
Philadelphia Vireo	1	2	1	10	4	18
Warbling Vireo	12					12
Black-and-white Warbler	109	8	12	16	27	172
Golden-winged Warbler	8					8
Tennessee Warbler	53	1	5	69	68	196
Orange-crowned Warbler	11			3		14
Nashville Warbler	12	3		43	12	70
Northern Parula	1		1	2		4
Yellow Warbler	12		1	1	9	23

BIRDS KILLED AT KROC-TV TOWER, OSTRANDER, FILLMORE COUNTY, MN.,

1961, 1962, 1972-1974

	1961	1962	1972	1973	1974	TOTAL
Magnolia Warbler	10	5		18	13	46
Cape May Warbler				1	1	2
Black-throated Blue Warbler	1	1	1		1	4
Yellow-rumped Warbler	10			47		57
Black-throated Green Warbler	5		1	5	4	15
Blackburnian Warbler	17	5	2	1	3	28
Chestnut-sided Warbler	55	8	12	19	29	123
Bay-breasted Warbler	14		10	41	11	76
Blackpoll Warbler	5			3	8	16
Palm Warbler	1	1		16	2	20
Ovenbird	195	56	48	131	189	619
Northern Waterthrush	65	5	8	4	24	106
Louisiana Waterthrush	1					1
Connecticut Warbler	1		1	3	14	19
Mourning Warbler	17	2			6	25
Common Yellowthroat	86	5	5	15	32	143
Wilson's Warbler	18	1		1	2	22
Canada Warbler	22	2		2	3	29
American Redstart	27	1	1	15	19	63
Bobolink	13		1		9	23
Northern Oriole	25				11	36
Scarlet Tanager	2	3	1	17		23
Rose-breasted Grosbeak	22	10	7	8	15	62
Indigo Bunting	2			17		19
Dickcissel					1	1
Savannah Sparrow	1			6		7
Grasshopper Sparrow				1		1
Le Conte's Sparrow	3					3
Sharp-tailed Sparrow	1			1		2
Vesper Sparrow	1			1		2
Chipping Sparrow	3					3
Clay-colored Sparrow				1		1
White-crowned Sparrow				1		1
White-throated Sparrow	3			6		9
Fox Sparrow	2					2
Lincoln's Sparrow	7			12	1	20
Swamp Sparrow	4			5		9
Song Sparrow	4			1		5
UNIDENTIFIED	79			1		80
TOTAL BIRDS PICKED UP	1547	248	185	726	801	3507
TOTAL SPECIES PICKED UP	67	28	32	59	38	84

This list of species and birds recovered indicates only what was collected, except for the Pied-billed Grebe, American Coot and the Common Tern which were not salvaged. Hundreds of other birds were not recovered because they were so badly mangled, those on the road, or decomposed, or partially destroyed by nature's clean-up patrol.

ered 22 birds as cripples and killed them with the aid of a plastic bag. Hundreds of birds were picked up in the pasture and placed in piles but were not kept because I judged them beyond use for museum specimens. The number I recovered was 780 birds. I counted more than 1500 birds that were dead in the area.

Most of the kills this time were located in the pasture to the south of the tower. I also noted that more than usual were in the pasture to the east of the transmitter building indicating that there was a west or northwest wind during the night and/or that the birds were migrating in a bit different direction. Likely the former for there were many birds to the south of the tower.

In 1961 the birds were found mostly around the transmitter building on the bare ground. In 1972 the birds were found mostly in the same area with one hooked on the barbed wire fence in the southeast corner of the tower grounds. In 1973 most of the dead birds were found in the same area around the tower and transmitter building, but many others were found in the pasture, on the driveway and on County Road #1 west of the tower.

Fifteen species or 18 percent, were recovered all five years; sixteen species or 19 percent were recovered four years; nine species or 11 percent were recovered three of the five years; seventeen species or 20 percent were recovered two of the five years and twenty-seven species or 32 percent were recovered only one of the five years.

In summary 84 species of birds totaling 3,507 individual birds were recovered at KROC-TV tower three miles south of Ostrander, Minnesota in Fillmore County. The smaller passerine birds were the hardest hit by these

tower kills. Many of these species have the largest kills year after year including the Northern Waterthrush — 619; Red-eyed Vireo — 516.

How many hundreds or thousands more birds will continue to be killed as the years go by, no one knows. It will take technical research into the why the birds strike the television towers during rain and fog before some remedy is suggested. We do know that some of the birds strike the tower during hours of transmission, while others strike the tower when the station is not on the air.

In the meantime I shall continue to watch this tower and record the kills and recover the dead birds so that students can prepare the skins and use them for different studies of color variation, size and other information they can gain from these dead birds.

Dr. Dwain W. Warner, Curator of birds at the James Ford Bell, Museum of Natural History at the University of Minnesota has stated that while the death of so many birds is unfortunate it does give professors and students an opportunity to have a large number of birds, of a given species, taken at the same time of the year so that they make comparisons as to size, and color variations. 300-2nd St. NW, Stewartville, Minnesota 55976.

BIBLIOGRAPHY of LITERATURE CITED

- Strnad, Rev. Forest V., 1962, "Birds Killed at the KROC-TV Tower, Ostrander, Minnesota," *The Flicker*, 34:7-9.
- Feehan, John, 1963, "Birds Killed at the Ostrander Television Tower," *The Flicker*, 35:111-112.

SCOTT'S ORIOLE BANDED IN DULUTH

by Koni Sundquist

Spring banding in Duluth is always exciting, but, May of '74 was something I will never forget. After six years of banding — I caught my first Southwest Accidental! It was a cool May. Temps running 2.8° below the normal of 49.4°. Nevertheless, by the 16th, the Rose-breasted Grosbeaks and orioles were arriving in all their gorgeous mating finery. Then, a few days later, a cold front poured down out of Canada and we had one grand and glorious reverse migration! Marj Carr, photographing birds along the North Shore, was caught in the midst of it and noted every other bird seemed to be an oriole. I believed her, because our yard was suddenly knee deep in orioles. They were so hungry, they seemed frenzied! I put out dozens of oranges and quarts of grape jam. The orioles were hanging upside-down, draining the hummingbird feeders, so I went to the feed store and bought two quart-sized chick founts (water container). Well, those orioles literally "lined up" for long drinks of that red-colored sugar water. I couldn't believe the number of orioles I was banding. Here's how it's built: May 19 — 1; May 20 — 20; May 22 — 22; May 31 — 23. Never had I banded more than 25 orioles in a Spring migration and one year, as few as 5. On May 23rd, my husband, Norm, was helping take birds out of the nets, when I heard him call, "Hey, here's a strange looking oriole — come and see how dark it is." I glanced over my shoulder and thought we had caught an Orchard Oriole. We put the "mystery bird" in a holding cage and quickly processed the other birds. Then got out all the bird books and manuals and began checking. It was evident it was a second year male something. But what? I needed advice, so called Jan Green. She came right over and, after looking it over, said it looked like it was an Orchard Oriole.

We do see them on rare occasions, this far north and about five years back, we had several reported in May. So, the bird was banded with a 1A band (number 791-43077) and recorded as a second year male Orchard Oriole. I wrote a full page of notes on the coloration, measurements, and underlined the fact that the primaries and tail feathers were very worn. Early the next morning, there he was, back in the net again. He was really hooked on that grape jam. He was so big and so aggressive-dominate over the Baltimores. The only other Orchard I had ever seen was chased out of my yard by the Baltimores. And the total length of this bird was eight inches (Peterson listed the Orchard 6-7¼.) I found myself turning to the Western Peterson Guide again and again. That immature Scott's Oriole on page 267 — could it be or was it just wishful thinking on my part? The length was right, but, the bird was much duskier than the picture it seemed (no offense, Roger honey . . .) and the long bill. It was coal black around the eyes with a deep dark bib. A dusky avocado look. Gray-black wings with two white wing bars. Yellowy wing linings. Avocado rump. Yellow-green under tail coverts. Tail, yellow-green with blackish feathers in the center. Gray legs. It had a big look and feel to it (when you band a lot of birds, you get to feel the size and heft of a bird in your hand. The bird kept popping in the net (repeating six times in all) and I finally phoned Dr. Hofslund, ornithologist at the Duluth branch of the University of Minnesota. Over he came, took a long look at the bird and said, Well, Kon, I can't tell you what it is, but, I can tell you what it isn't, and it isn't an Orchard. I grew up in southern Minnesota where there were Orchards and that definitely is **not** an Orchard Oriole." He went on to say I should have



SCOTT'S ORIOLE AT DULUTH
Photos by Marj Carr

color slides made and send them along with all measurements and information gathered, to Dr. Harrison B. Tordoff, Director of the James Ford Bell Museum of Natural History, University of Minnesota, Minneapolis, Minnesota. It was done. Marj Carr kindly taking the pictures. A few weeks later Dr. Tordoff wrote, pronouncing it to be a second year male Scott's Oriole, never seen in Minnesota before. It winters in Mexico and breeds in the Southwest from western Texas to southeastern California. Building its' grassy pouch nest in yucca "forests." Dr. Tordoff commented at length on the unusual feather wear. He said it suggested the bird may have been caged for a time. He said orioles are often caught and caged in Latin America. Then he wondered if the bird could have found its way to Duluth, caged, on board a ship — then escaping or being turned loose when in port. Well, perhaps, but, it does seem to great a coincidence — arriving during the heaviest influx of orioles in reverse migration. The Scott's stayed in and around our yard for a full three weeks. It was seen by a number of MOU people. It never sang or called, to my knowledge (the song is said to be similar to the Western Meadowlark). It did, however, scold once and it sounded just like a Baltimore checkering. I banded a total of 153 Baltimores plus the Scott's within a 19 day period. With three Baltimore returns (banded in '71 and '73). My banding buddy, Richard Davids, of rural Bagley, Minnesota was deluged with orioles too. He said he banded 70 without trying hard. Peter Ryan of Little Falls, banded his usual number of 22. When the last oriole was banded, my dear husband cast a disapproving look at my white tennis shoes — now generously spattered with Scott's Oriole Poo, and

suggested they needed to be washed. I bronzed them. **2903 Jefferson Street, Duluth, Minnesota 55812.**

Dear Koni: I agree that the bird is a Scott's Oriole. It appears from plumage and measurements to be an immature male. I would further guess that it might well be an escapee from captivity. The wear on the tail feathers is suggestive of captivity. On the wings the primaries appear more worn than the secondaries, a condition often resulting from captivity.

Since no comment was made, I assume that the bill and claws showed no abnormality, particularly no signs of overgrowth. It might be significant if the bird showed evidence of unusual tolerance for people, but, this could also be caused by hunger. When all is said and done, no one can really know.

Orioles are frequently caged in Latin America. They are readily kept on fruit and scraps of meat. It is easy to speculate that such a bird might have found its way to Duluth on board ship, to escape or be turned loose when it became troublesome to keep.

I would like to know that rare birds of this sort are wild things that got where they are under their own power. This may be the case for the Scott's Oriole, but, I would not like to bet on it.

I should point out the severe feather wear does occur at times in wild birds. Sometimes it is associated with ill health, sometimes not. So wear by itself does not prove much, even though it is suggestive of captivity.

Editor's Note: The above letter was written by Dr. Harrison Tordoff, Director of the Bell Museum, University of Minnesota. Because of the question of wildness or origin of the Scott's Oriole it was added to the Hypothetical List of Minnesota birds.

THE SUMMER SEASON (June 1-July 31, 1974)

by Kim R. Eckert

Summer 1974 in Minnesota was hot and dry. Drought conditions in some areas, especially in southwestern counties, were among the worst in history. June's temperatures weren't too bad, with most regions close to norms. Exceptions were Winona at 5.1° below normal and a monthly high of 102° at Luverne and Worthington. But June was dry with all regions except the Southeast with below normal precipitation. The western third of the state was over two inches behind in rainfall. Elgin fared well with 10.15 inches of rain for June, but Elbow Lake managed only .68 inches. Dry conditions continued into July and it got hotter. All regions were between 2.5° and 4.4° above normal. Only Two Harbors and Grand Marais on cool Lake Superior averaged slightly cooler than normal, and on the 13th Redwood Falls recorded July's high of 105°. Also Bird Island and Cambridge suffered through temperatures that were 5.7° higher than the norm. All regions were behind in rainfall, with the Southwest no less than 2.47 inches below normal for July. Windom, for example, managed only .47 inches for the month.

But these weather extremes apparently had little effect on breeding birds. Potholes may have dried up in the heat, but at least waterbirds didn't get drowned out from their nests. A total of 237 species (plus 12 migrant shorebirds) were recorded by 47 observers. Nesting evidence was found for 147 species. These totals are probably close to average, but it is difficult to compare numbers from year to year. Some compilers count migrants (e.g. shorebirds) while others may not, and it is often difficult to be accurate and consistent when deciding what constitutes nesting evidence on the reports.

Coverage seemed pretty good dur-

ing Summer 1974. The numbers of observers was not any higher, but we seem to have reporters from more counties than ever before. Many species appear with a comment such as "more reports than usual," indicating not a greater abundance of birds perhaps, but rather better representation from more counties. Only two or three species were noted to have been less common than usual.

Several highlights for the season seem worth emphasizing here. Little Blue Herons and Cattle Egrets failed to nest at Lake Johanna but there were still sight records, and Yellow-crowned Night Herons appeared to have nested in Stearns Co. Three Mute Swans lingered into June at Duluth (first state record), as did Little Gulls and an Arctic Tern (second state records). Ring-billed Gulls set up a good sized colony at Duluth, having nested previously only on Mille Lacs. The now casual Burrowing Owl not only showed up but also bred and raised young in Cottonwood Co., and Great Gray Owls were almost common in northern Minnesota and may have bred. A Scissor-tailed Flycatcher with a fondness for concrete was spotted in a shopping center parking lot, a pair of Say's Phoebes tried to nest in Rock Co. (third state record), and Acadian Flycatchers seem to be expanding their numbers and range. Black-billed Magpies bred in St. Louis Co., far east of their "normal" range, and seven Sprague's Pipits at Felton may be an all-time high for the state. It is hard to figure what a Black-and-white Warbler was doing in Le Sueur Co. in late June or why a Blackpoll Warbler was still in Duluth on 6-21. Black-throated Blue Warblers showed up in unprecedented numbers, and the now casual Yellow-breasted Chat occurred twice. Finally, two species occurred east of their normal range of northwest Minnesota:

Sharp-tailed Sparrows followed the Yellow Rails from Waubun to Aitkin Co., and a male Chestnut-collared Longspur turned up in Duluth.

Common Loon

Nested in Lake of the Woods, St. Louis, Lake, Itasca, Aitkin, Stearns, Sherburne, Wright, Anoka, Ramsey; also reported from 17 other counties.

Red-necked Grebe

Nested in Marshall and Douglas; also reported from Clearwater, Todd, Stearns, Wright, Ramsey; more reports than usual.

Horned Grebe

Reported only from Lake Superior.

Eared Grebe

Nested in Marshall; also reported from Salt Lake, Lac Qui Parle Co. (EC, JG, KE, RJ) where a peak of 12 was noted on 7-11.

Western Grebe

Nested in Marshall, Kandiyohi, Nicollet; also reported from Big Stone, Pope, Swift, Lac Qui Parle, Sibley.

Pied-billed Grebe

Nested in Marshall, Lac Qui Parle, Pipestone, Rock, Hennepin; also reported from 21 other counties.

White Pelican

Nested at Marsh L., Big Stone Co.; non-breeding birds also reported from Marshall, Beltrami, Duluth, Lac Qui Parle, Chippewa, Nicollet; more reports than usual.

Double-crested Cormorant

Nested in Grant and Pope; also reported from Marshall, Beltrami, Duluth, Cook, Hennepin, Dakota, Big Stone, Lac Qui Parle, Chippewa, Lincoln, Lyon.

Great Blue Heron

Nested in Itasca, Mille Lacs, Morrison, Pope, Hennepin, Winona; also reported from 35 other counties.

Green Heron

Nested in Pope, Stearns, Hennepin; also reported from 27 other counties

The Loon

including Lac Qui Parle, Pipestone, Rock; much more widespread than usual especially in southwest Minnesota.

Little Blue Heron

Did not nest this year at L. Johanna as it has the past few years, but an adult was seen there twice in July (R. Glassel, KE); also one seen at Black Dog L., Dakota Co. on 6-25 (VL).

Cattle Egret

No nesting or sightings of this species at L. Johanna rookery, but up to three adults were seen at Pelican L., Grant Co. from 6-2 to 7-27 (T. Smith, RJ, KE).

Great Egret

Nested in Pope and Winona; also reported from 14 other counties north to Clearwater (all summer, RD) and Marshall (all July plus peak of 22 on 6-27, SV).

Black-crowned Night Heron

Nested in Pope, Murray, Hennepin; also reported from 16 other counties.

Yellow-crowned Night Heron

Nested at La Crescent, Houston Co. (three adults and one young on 7-26, FL); also an adult and immature were seen at St. John's Univ., Stearns Co. on 6-11 (NF).

Least Bittern

Nested in Stearns and Wright; also reported from Redwood, Pipestone, Nicollet, Dakota, Hennepin, Ramsey.

American Bittern

Reported from 21 counties.

Whistling Swan

Late migrants noted in Duluth from 6-2 to 6-17 (D. Olson, H. Roberts, JG) and in Cook Co. on 6-24 (H. Chamberlain).

MUTE SWAN

Three still present on 6-2 in the St. Louis R. in Duluth with Whistling Swans (D. Olson); if wild, these would represent a first state record; Mute Swans occur in good numbers in the wild in Michigan and strays have occurred several times on the Wisconsin

and Illinois side of L. Michigan; these same three swans apparently wandered during 1974 on L. Superior to Wisconsin and Ontario.

Canada Goose

Nested in Marshall, Itasca, Stearns, Chippewa, Hennepin, Olmsted; also reported from 13 other counties.

Snow Goose

Late migrant or cripple on 6-27 in Marshall Co. (SV).

Mallard

Nested in Marshall, Itasca, St. Louis, Lake, Clay, Kanabec, Benton, Stearns, Isanti, Wright, Swift, Chippewa, Pope, Rock, Hennepin, Ramsey, Wabasha; also reported from 19 other counties.

Black Duck

Nested in Ramsey (Bald Eagle L., 14 young on 7-6, EC); also reported from Marshall, St. Louis, Lake, Cook, and a late migrant 6-6 Lac Qui Parle (JG).

Gadwall

Nested in Marshall, Pope, Lac Qui Parle; also reported from St. Louis, Douglas, Big Stone, Swift, Lyon.

Pintail

Nested in Marshall and Clay; also reported from St. Louis, Becker, Douglas, Big Stone, Lac Qui Parle, Chippewa, Swift, Yellow Medicine, Jackson.

Green-winged Teal

Nested in Hennepin; also reported from Marshall, St. Louis, Pope, Lac Qui Parle, Chippewa, Meeker, Carver.

Blue-winged Teal

Nested in Marshall, Ottertail, Clay, Lac Qui Parle, Chippewa, Redwood, Lyon, Rock, Wabasha, Hennepin, Wright, Stearns, Lake; also reported from 21 other counties.

American Wigeon

Nested in Marshall and St. Louis; also reported from Dakota and Big Stone.

Northern Shoveler

Nested in Marshall and Hennepin; also reported from Clay, Douglas, Big

Stone, Lac Qui Parle, Lyon, Jackson.

Wood Duck

Nested in Itasca, Mille Lacs, Clay, Stearns, Hennepin, Ramsey, Wabasha, Houston, Isanti, Chippewa, Big Stone, Lyon, Lincoln, Rock; also reported from 15 other counties.

Redhead

Nested in Marshall and Meeker; also reported from 12 other counties.

Ring-necked Duck

Nested Marshall and Stearns; also reported from 12 other counties.

Canvasback

Nested in Marshall, Big Stone, Hennepin; also reported from Mahanomen, Douglas, Lac Qui Parle, Kandiyohi, Jackson.

Greater Scaup

Late migrants noted 6-8 Duluth (RJ).

Lesser Scaup

"Broods noted" at Agassiz N. W. R. in Marshall Co. (SV) (very few breeding records exist for this species); late migrants noted up to 6-20 in Mahanomen, Douglas, Big Stone, Lac Qui Parle, Pope, Swift, Kandiyohi, Lyon, Jackson, Hennepin, Dakota; early fall migrant 7-22 Rock (KE).

Common Goldeneye

Nested in Hubbard, Koochiching, Itasca, Lake, Cook; also reported from St. Louis.

Bufflehead

Late migrant noted 6-3 Douglas (RJ).

Ruddy Duck

Nested in Marshall, Lac Qui Parle, Ramsey; also reported from Douglas, Big Stone, Swift, Kandiyohi, Yellow Medicine, Lyon, Nicollet, Hennepin, Goodhue, Wright.

Hooded Merganser

Nested in Stearns, Wabasha, Houston; also reported from Marshall, Aitkin, St. Louis, Cook.

Common Merganser

Nested in St. Louis; also reported

from Lake and a late migrant seen on 6-6 in Big Stone Co. (EC, JG).

Red-breasted Merganser

Nested in St. Louis and Lake; also reported from Cook.

Turkey Vulture

Many more reports than usual, especially in southern and western Minnesota; reported from Beltrami, Itasca, St. Louis, Lake, Cook, Clearwater, Wabasha, Winona, Houston, Fillmore, Mille Lacs, Clay (6-26, PH), Chippewa (7-6, CH).

Goshawk

Only report was 6-1 in Clearwater Co. (KZ).

Sharp-shinned Hawk

Reported from Marshall, Lake of the Woods, Beltrami, Aitkin, Crow Wing, Mille Lacs, St. Louis, Lake, Cook.

Cooper's Hawk

Nested in Stearns and Hennepin; also reported from Clearwater and Mille Lacs.

Red-tailed Hawk

Nested in Benton and Wright; also reported from 33 other counties; more widespread than usual.

Red-shouldered Hawk

Nested in Crow Wing and Washington; also reported from Stearns, Anoka, Wabasha, Aitkin (8-8, NJ).

Broad-winged Hawk

Nested in St. Louis and Stearns; also reported from 17 other counties.

Swainson's Hawk

Nested in Mower (2 nests, DS) and Pipestone (near Holland, EC) (few nesting reports exist for this hawk); also reported from Chippewa (CH), Pipestone (near Ihlen, KE, JG), Rock (KE), Dakota and Goodhue (RJ).

Bald Eagle

Nested in St. Louis, Lake, Aitkin (also on 6-1, 27 of 43 nesting territories in the Superior National Forest reported active); also reported from Hubbard, Itasca, Mille Lacs.

The Loon

Marsh Hawk

Reported from 20 counties.

Osprey

Nested in Cass, Aitkin, Lake (also on 6-1, 25 of 33 nesting territories in the Superior National Forest reported active); also reported from Hubbard, Clearwater, Crow Wing, St. Louis, Winona (6-11, OJ, late migrant?).

Merlin

Reported from St. Louis (GN) and Cook (MMC).

American Kestrel

Nested in Lake, Stearns, Hennepin; also reported from 37 other counties.

Spruce Grouse

Nested in Lake of the Woods (7-3, Lost L., three young, PH); also seen on 6-19 in BWCA, St. Louis Co. (GN) and on 6-23 in Lake Co. near Whyte (JG) and on Co. Rd. 2 near Sand L. (R. Huber).

Ruffed Grouse

Nested in Itasca, St. Louis, Lake, Cook, Stearns, Washington, Wabasha, Hennepin; also reported from Clearwater, Aitkin, Mille Lacs, Morrison, Chisago, Goodhue, Olmsted, Houston.

Greater Prairie Chicken

6-26 Felton, Clay Co. (PH); only report.

Sharp-tailed Grouse

Nested in Marshall and Aitkin; no other reports.

Bobwhite

Continues to hang on in limited numbers; 6-19 Winona Co. (J. Gube); 6-20 Chatfield, Winona Co. (WDM); 6-27 Rochester, Olmsted Co. (WDM); and an unusual report from White Bear L., Ramsey Co. on 6-18 (details?, G. Casper).

Ring-necked Pheasant

Nested in Chippewa, Lac Qui Parle, Stearns, Cottonwood, Rock, Hennepin, Washington; also reported from 19 other counties.

Chukar

Reported once from Ely on 6-18 (BDC); in recent years the birds at Ely have become difficult to locate and may be dying out.

Gray Partridge

Nested in Kandiyohi, Lyon, Cottonwood, Martin; also reported from Pennington, Wilkin, Pope, Lac Qui Parle, Chippewa, Lincoln, Murray, Rock, Dakota.

Turkey

No reports from the wild birds at Whitewater W. M. A., but CH reports that birds have been introduced locally near Correll, Big Stone Co.; he says they inhabit farm groves and that young have been seen.

Sandhill Crane

Nested again in Aitkin Co. (TS); also 6-15 Mille Lacs (MI) and 7-29 Marshall (SV).

Virginia Rail

Only reported from Clay, Douglas, Mille Lacs, Hennepin.

Sora

Nested in St. Louis; also reported from 16 other counties.

Yellow Rail

Again reported from Aitkin Co. where 20-30 were heard calling in 8-10 marshes (TS); no reports from the Waubun marsh.

Common Gallinule

Nested at the La Crescent marshes, Houston Co.; no other reports.

American Coot

Nested in Marshall, Clay, Morrison, Wright, Lac Qui Parle; also reported from 18 other counties.

Piping Plover

Nested as usual at Duluth's harbor area; no other reports.

Killdeer

Nested in Marshall, Clay, St. Louis, Stearns, Yellow Medicine, Sherburne, Ramsey, Le Sueur, Lac Qui Parle; also reported from 32 other counties.

American Woodcock

Nested in Beltrami, Stearns, Benton, Wabasha, Hennepin; also reported from 16 other counties including Clay (6-26, PH), Chippewa (7-4, CH), Lac Qui Parle (6-20, CH), Pipestone (6-11, KE); more common than usual, especially in western counties where summer reports are virtually nil.

Common Snipe

Nested in St. Louis and Stearns; also reported from 19 other counties.

Upland Sandpiper

Nested in Clay, Swift, Chippewa; also reported from 14 other counties.

Spotted Sandpiper

Nested in St. Louis and Lake; also reported from 25 other counties.

Marbled Godwit

Reported from Marshall, Polk, Clay, Duluth (7-2, MMC), Big Stone, Swift, Lac Qui Parle, Yellow Medicine.

Wilson's Phalarope

Reported from Marshall, Clay, Douglas, Morrison, St. Louis, Becker, Wright, Dakota, Lac Qui Parle, Lyon, Rock.

Herring Gull

Nested in St. Louis and Lake; also reported from Cook, and non-breeding birds and migrants seen in Aitkin, Mille Lacs, Pope, Washington, Dakota, Goodhue.

Ring-billed Gull

First successful nesting away from Mille Lacs L. discovered at Duluth; two eggs on 6-23 at Port Terminal (RJ) and on 7-18, 545 adults with 790 young counted at MP&L Hibbard Plant Fill (S. Mattison, J. Harris); non-breeding birds also reported from Marshall, Clay, Mille Lacs, Pope, Chippewa, Lyon, Lincoln, Murray, Le Sueur, Hennepin.

Franklin's Gull

Nested in Marshall; also reported from 17 other counties.

Bonaparte's Gull

Migrants seen at Duluth from 6-8 to

6-21 (JG, RJ) and on 7-7 (MMC); early fall migrant seen 7-28 Marshall (SV).

LITTLE GULL

For the second year in a row showed up at Duluth in late spring; four seen on 6-17 at Park Point (JG); this species has been increasing in recent years on the Great Lakes and may become regular on L. Superior.

Forster's Tern

Nested in Pipestone; also reported from 15 other counties.

Common Tern

Nested at Duluth (173 nests); also reported from Itasca, Mille Lacs, Ottertail, Stearns, Big Stone, Washington.

ARCTIC TERN

Also for second year in a row with Little Gulls at Duluth (one on 6-17, JG); this hard-to-identify tern may have been overlooked in past years and may be regular in migration.

Caspian Tern

Late migrants reported from 6-8 to 6-21 at Duluth (JG, RJ); 6-2 Washington (G. Casper); 6-8 Lake (RJ); 6-17 Cook (MMC); 6-30 Wright (BH).

Black Tern

Nested in Stearns, Wright, Lincoln, Pipestone; also reported from 27 other counties.

Mourning Dove

Nested in Clay, Stearns, Cottonwood, Rock, Ramsey, Wabasha; also reported from 36 other counties.

Yellow-billed Cuckoo

Reported from 13 counties north to Duluth (J. Lyons and J. Swain).

Black-billed Cuckoo

Reported from 21 counties.

Screech Owl

Nested in Washington; also reported from Chippewa, Le Sueur, Olmsted, Houston.

Great Horned Owl

Nested in Morrison, Chippewa, Rock, Mower; also reported from 15

other counties; more common than usual.

BURROWING OWL

This now casual species nested in Cottonwood Co. (one mi. west of Indian Petroglyphs Monument), four young raised (J. Brandenburg); this owl is very rare now in the state and last nested regularly in the early 1960's.

Barred Owl

Nested in Olmsted; also reported from Lake of the Woods, Itasca, Aitkin, St. Louis, Washington, Le Sueur, Goodhue, Wabasha, Winona, Houston.

GREAT GRAY OWL

No less than seven reports; third nesting record for the state north of Roseau (Roseau Co.) in artificial nest; one young on 6-6 (R. Nero); 6-5 near Little Fork, Koochiching Co. (R. Bilder); 7-5 near Meadowlands, St. Louis Co. (MMC); 6-1 at Island L., St. Louis Co. (GN); "June" at Brimson, St. Louis Co. (I. Sublette); 6-16 near Whyte, Lake Co. (B. Bergstedt); 6-23 on Lake Co. 2 near Murphy (RJ); this owl is supposedly only a rare winter visitant to Minnesota, but this flood of reports suggests that the Great Gray may now be a regular breeder here, especially in the bogs of northern Roseau Co.

Short-eared Owl

Nested in Aitkin; also reported from Clearwater and Duluth.

Saw-whet Owl

Singing in June at two spots in Clearwater Co. (RD); 6-4 and 7-29 in Duluth (S. Beverly, MMC); also in St. Louis Co. (no date, JG).

Whip-poor-will

Reported from Lake of the Woods, Clearwater, St. Louis, Cook, Aitkin, Ramsey, Wabasha, Houston.

Common Nighthawk

Nested in St. Louis; also reported from 26 other counties.

Chimney Swift

Reported from 31 counties.

The Loon

Ruby-throated Hummingbird

Nested in Wright and Olmsted; also reported from 25 other counties.

Belted Kingfisher

Nested in Rock; also reported from 35 other counties.

Common Flicker

Nested in St. Louis, Ottertail, Stearns, Big Stone, Cottonwood, Rock, Wabasha; also reported from 29 other counties.

Pileated Woodpecker

Nested in Wright; also reported from 20 other counties; more common than usual.

Red-bellied Woodpecker

Nested in Houston; also reported from Aitkin (6-7, NJ), Stearns, Ramsey, Washington, Wabasha, Nicollet, Le Sueur, Olmsted, Mower, Goodhue.

Red-headed Woodpecker

Nested in Stearns, Wright, Hennepin, Le Sueur; also reported from 35 other counties.

Yellow-bellied Sapsucker

Nested in Lake and Rice; also reported from 14 other counties including Lac Qui Parle (JG).

Hairy Woodpecker

Nested in St. Louis, Lake, Ottertail, Todd, Stearns, Hennepin, Le Sueur; also reported from 27 other counties.

Downy Woodpecker

Nested in Stearns, Sherburne, Goodhue, Le Sueur; also reported from 35 other counties; more widespread than usual.

Black-backed Three-toed Woodpecker

Three nesting reports: Little Sioux Burn, St. Louis Co. (no date, GN); two nests at Isabella, Lake Co. seen on the June MOU trip; S. Kawishiwi campground, Lake Co. (PH).

Eastern Kingbird

Nested in St. Louis, Lake, Stearns, Wright; also reported from 39 other counties.

Western Kingbird

Nested in Big Stone, Chippewa, Pipestone; also reported from 18 other counties including Duluth (6-1, MMC).

SCISSOR-TAILED FLYCATCHER

One spotted in typical habitat, flying over a shopping center parking lot in Edina, Hennepin Co. on 6-27 (RJ).

Great Crested Flycatcher

Nested in Hennepin, Le Sueur, Olmsted; also reported from 36 other counties; more reports than usual.

Eastern Phoebe

Nested in Becker, Clay, St. Louis, Stearns, Hennepin, Wabasha; also reported from 26 other counties.

SAY'S PHOEBE

Same pair seen in spring at Blue Mounds State Park, Rock Co. lingered there until July; singing male seen on 6-4 and 7-14 and both birds seen on 6-10 only (KE); nesting evidence was never found; third state record.

Yellow-bellied Flycatcher

Reported from Aitkin, St. Louis, Lake, Cook; late migrants noted 6-1 and 6-2 in Hennepin (ES, VL) and Cottonwood (LF).

Acadian Flycatcher

Apparently increasing and spreading its range northward; nested at Vasa, Goodhue Co. (observed 6-1 to 6-8, RJ, KG, JG); also seen 6-23 at Nerstrand Woods St. Pk., Rice Co. (PH); in its old area at Beaver Creek Valley St. Pk., Houston Co. a peak of seven singing males counted on 6-2 (KE).

Willow Flycatcher

Reported from Lyon, Goodhue, Winona, Washington, Dakota, Hennepin, Olmsted, Mower, Clay, Pipestone, Murray, Chippewa, Aitkin; also see below.

Alder Flycatcher

Reported from Marshall (Willow?), St. Louis, Lake, Cook, Crow Wing (Willow?), Morrison (Willow?), Itasca, Mille Lacs (Willow?), Lake of the Woods; migrants reported 6-2 Houston (KE) and 6-5 Stearns (NH); the ranges of this and the preceding species in

the state are still uncertain, and we may have to ask for call-note data in the future as we do now for the dowitchers.

Least Flycatcher

Reported from 29 counties.

Eastern Wood Pewee

Nested in Stearns, Le Sueur, Olmsted, Murray, Rock; also reported from 32 other counties.

Olive-sided Flycatcher

Reported from St. Louis, Lake, Cook, Aitkin, Itasca, Lake of the Woods, Clearwater, Carlton, Mille Lacs, Todd, Morrison; late migrants seen 6-1 to 6-7 in Cottonwood, Hennepin, Ramsey, Stearns, Carver (LF, OJ, BS, NH, E. Joul).

Horned Lark

Nested in Chippewa, Rock, Hennepin; also reported from 28 other counties.

Tree Swallow

Nested in St. Louis, Stearns, Wright, Hennepin, Wabasha, Cottonwood; also reported from 30 other counties.

Bank Swallow

Nested in St. Louis, Washington, Winona, Le Sueur, Swift, Chippewa, Rock; also reported from 21 other counties.

Rough-winged Swallow

Nested in Washington; also reported from 21 other counties.

Barn Swallow

Nested in Marshall, Lake of the Woods, Clay, Ottertail, Sherburne, Wright, Le Sueur, Hennepin, Murray, Rock; also reported from 30 other counties.

Cliff Swallow

Nested in Marshall, Hubbard, Mille Lacs, Kanabec, Isanti, Sherburne, Winona, Chippewa, Rock; also reported from 18 other counties.

The Loon

Purple Martin

Nested in Stearns, Hennepin, Le Sueur, Cottonwood, Chippewa, Murray; also reported from 35 other counties.

Gray Jay

Nested in Cass, St. Louis, Cook; also reported from Lake of the Woods, Clearwater, Itasca, Lake.

Blue Jay

Nested in Clay, Sherburne, Wright, Hennepin, Wabasha, Pipestone; also reported from 35 other counties; more reports than usual.

Black-billed Magpie

Continues to be reported in summer; two again at Agassiz N. W. R., Marshall Co. probably nested (SV); another nesting two mi. north of Meadowlands, St. Louis Co. (young seen along roadsides, M. Holets); one seen 7-2 Polk (DE).

Common Raven

Nested in St. Louis; also reported from Lake and Cook.

Common Crow

Nested in Stearns and Chippewa; also reported from 41 other counties.

Black-capped Chickadee

Nested in St. Louis, Stearns, Hennepin, Ramsey, Le Sueur, Winona, Cottonwood, Pipestone; also reported from 29 other counties.

Boreal Chickadee

Four reported; 7-7 to 7-10 in Lake Co. (ME, JG), Cook Co. (no date, MMC), and 7-19 on the Echo Trail, St. Louis Co. (JG).

Tufted Titmouse

Only two reports; 6-2 Houston (KE) and 6-4 Nicollet (EC).

White-breasted Nuthatch

Nested in St. Louis, Stearns, Le Sueur; also reported from 30 other counties.

Red-breasted Nuthatch

Reported from Lake of the Woods, Clearwater, Hubbard, St. Louis, Lake, Cook, Stearns (6-11 to 6-19, NF).

Brown Creeper

Reported from St. Louis, and a late migrant seen 6-9 Lac Qui Parle (OFE).

House Wren

Nested in Marshall, Carlton, Stearns, Wright, Hennepin, Wabasha, Winona, Le Sueur, Cottonwood, Swift, Pipestone, Murray, Rock; also reported from 32 other counties.

Winter Wren

Reported from Marshall, Lake of the Woods, Clearwater, Itasca, St. Louis, Lake, Cook.

Long-billed Marsh Wren

Nested in Stearns; also reported from 22 other counties.

Short-billed Marsh Wren

Reported from 39 counties; more reports than usual.

Mockingbird

One reported 6-8 at Stoney Point, St. Louis Co. (RJ).

Gray Catbird

Nested in Ottertail, Morrison, Stearns, Washington, Houston, Rock; also reported from 37 other counties.

Brown Thrasher

Nested in St. Louis, Stearns, Hennepin, Ramsey, Wabasha, Cottonwood; also reported from 28 other counties.

American Robin

Nested in St. Louis, Stearns, Wright, Hennepin, Ramsey, Wabasha, Chippewa, Swift, Cottonwood, Pipestone, Rock; also reported from 34 other counties.

Wood Thrush

Reported from Aitkin, St. Louis, Lake, Cook, Mille Lacs, Stearns, Goodhue, Houston, Fillmore, Hennepin, Renville (Minnesota River Valley), Lac Qui Parle (6-7, JG), Rock (6-5 to 6-10, KE); after spreading north in recent summers, this thrush now may be spreading west.

Hermit Thrush

Reported from Lake of the Woods, Itasca, Aitkin, St. Louis, Lake, Cook, Carlton.

Swainson's Thrush

Reported from Todd, St. Louis, Lake, Cook; late migrant 6-1 Ramsey (BS).

Veery

Reported from 25 counties including Clay (6-26, PH).

Eastern Bluebird

Nested in Cass, Wright, Hennepin, Wabasha, Cottonwood, Rock; also reported from 25 other counties.

Blue-gray Gnatcatcher

Nested in Washington, Goodhue, Nicollet; also reported from Olmsted, Winona, Houston, Fillmore, Stearns (6-19, NF).

Golden-crowned Kinglet

Nested in St. Louis and Lake; also reported from Cook.

Ruby-crowned Kinglet

Nested in St. Louis; also reported from Clearwater, Lake, Cook.

Sprague's Pipit

A peak of seven singing males heard at the Felton prairie, Clay Co. on 7-28 (KE).

Cedar Waxwing

Nested in Wright; also reported from 34 other counties; more widespread than usual, especially in southwest Minnesota.

Loggerhead Shrike

Reported from Clay, Ottertail, Stearns, Benton, Chippewa; fewer reports than usual.

Starling

Nested in Stearns, Hennepin, Ramsey, Rock; also reported from 23 other counties.

Bell's Vireo

Present until 6-30 near Rochester, Olmsted Co. (JF); no reports from Winona.

Yellow-throated Vireo

Nested in Wright; also reported from 17 other counties, including St. Louis (6-13, JG) and Yellow Medicine (7-3, VL).

Solitary Vireo

Reported from Lake of the Woods,

Aitkin, St. Louis, Lake, Cook.

Red-eyed Vireo

Nested in Stearns and Le Sueur; also reported from 33 other counties.

Philadelphia Vireo

Only report from Cook Co. (no date, MMC).

Warbling Vireo

Nested in Stearns; also reported from 37 other counties; more reports than usual.

Black-and-white Warbler

Reported from Marshall, Lake of the Woods, Clearwater, Aitkin, Itasca, Carlton, Cass, St. Louis, Lake, Cook; also seen on 6-22 in **Le Sueur Co.** (good details, GR).

Prothonotary Warbler

Three reports; 6-1 Whitman, Winona Co., three (JF); 6-1 and 7-13 Houston (KE, RJ).

Golden-winged Warbler

Reported from Clearwater, Itasca, Crow Wing, St. Louis, Kanabec, Morrison, Chisago, Washington.

Blue-winged Warbler

Reported from Washington, Goodhue, Winona, Houston, Fillmore.

Tennessee Warbler

Reported from Marshall, Clearwater, Lake, Cook; also late migrants seen 6-1 to 6-3 in Ottertail, Stearns, Hennepin, Washington, Dakota, Goodhue, Cottonwood.

Nashville Warbler

Nested in St. Louis and Lake; also reported from Lake of the Woods, Clearwater, Aitkin, Crow Wing, Itasca, Carlton, Cook.

Northern Parula

Nested in Clearwater; also reported from Itasca, St. Louis, Lake, Cook.

Yellow Warbler

Nested in St. Louis, Stearns, Sherburne, Wright, Goodhue; also reported from 32 other counties.

The Loon**Magnolia Warbler**

Reported from Itasca, St. Louis,

Lake, Cook; late migrant seen 6-1 Cottonwood (LF).

Cape May Warbler

Reported from St. Louis, Lake, Cook.

Black-throated Blue Warbler

No less than five reports of what used to be a very rare warbler; 6-17 Cook (five singing males, MMC); 6-22 Cook (two, RJ), 6-22 and 6-23 Isabella, Lake Co. (KG, JG); 7-4 Ely, St. Louis Co. (JG); 7-6 Garden L., St. Louis Co. (JG).

Yellow-rumped Warbler

Nested in St. Louis and Lake; also reported from Lake of the Woods, Itasca, Cook.

Black-throated Green Warbler

Reported from Clearwater, Itasca, Carlton, St. Louis, Lake, Cook.

Cerulean Warbler

Reported from Stearns, Goodhue, Rice, Nicollet, Winona, Houston, Fillmore; also 6-3 Todd (RJ).

Blackburnian Warbler

Nested in Crow Wing and Lake; also reported from Lake of the Woods, Clearwater, Itasca, St. Louis, Cook.

Chestnut-sided Warbler

Reported from 14 counties south to Cottonwood and Washington.

Bay-breasted Warbler

Only reported from Lake of the Woods (PH) and Lake (JG, RJ).

Blackpoll Warbler

Late migrants seen 6-1 Clay (KZ) and 6-20 and 6-21 St. Louis (JG, EC).

Pine Warbler

Reported from Lake of the Woods, Itasca, Crow Wing, St. Louis, Chisago (6-2 and 7-6, DB, KG).

Palm Warbler

Reported only from St. Louis (6-15, DM).

Ovenbird

Nested in Aitkin and St. Louis; also reported from 18 other counties.

Northern Waterthrush

Reported from St. Louis, Lake, Cook; migrants seen 6-1 and 6-2 in Clearwater, Ottertail, Hennepin (KZ, NJ, ES).

Louisiana Waterthrush

Reported only from Franconia, Chisago Co. (7-6, KG), the only regular spot known for this species in summer.

Connecticut Warbler

Reported from Lake of the Woods, Clearwater, Aitkin, Itasca, St. Louis, Lake, Cook; more reports than usual.

Mourning Warbler

Nested in Washington (7-11 and 7-13, young being fed, EC); also reported from Lake of the Woods, Clearwater, Cass, Marshall, Itasca, Aitkin, Kanabec, St. Louis, Lake, Cook, Chisago (7-6, KG); apparent late migrants seen 6-2 and 6-7 Hennepin (CLH, DB) and "June" in Stearns Co. (NF).

Common Yellowthroat

Nested in Hennepin, Le Sueur, Pipestone, Rock; also reported from 39 other counties.

YELLOW-BREASTED CHAT

This now almost casual species was seen twice; 6-17 Dakota (banded, RC) and mid-June at Blue Mounds State Park, Rock Co. (M. Olson).

Wilson's Warbler

Migrants noted 6-1 Clearwater (KZ) and 6-2 St. Louis (JG).

Canada Warbler

Reported from St. Louis, Lake, Cook.

American Redstart

Nested in Aitkin, Lake, Le Sueur; also reported from 20 other counties.

House Sparrow

Nested in St. Louis, Stearns, Hennepin, Rock; also reported from 22 other counties.

Bobolink

Nested in Clay and Rock; also reported from 38 other counties.

Eastern Meadowlark

Reported from 15 counties.

Western Meadowlark

Nested in Clay, Stearns, Rock; also reported from 36 other counties; more reports than usual.

Yellow-headed Blackbird

Nested in Marshall, Stearns, Hennepin, Ramsey, Jackson; also reported from 31 other counties.

Red-winged Blackbird

Nested in Clearwater, Clay, St. Louis, Lake, Stearns, Hennepin, Ramsey, Winona, Rock; also reported from 35 other counties.

Orchard Oriole

Nested in Rock; also reported from Big Stone, Chippewa, Lac Qui Parle, Yellow Medicine, Kandiyohi, Lincoln, Pipestone, Murray, Nicollet, Le Sueur; also 6-2 to 6-5 Duluth (Mrs. Clapper).

Northern Oriole

Nested in Clay, Ottertail, Stearns, Wright, Hennepin, Ramsey, Winona, Houston; also reported from 37 other counties; more reports than usual.

Brewer's Blackbird

Nested in Marshall and St. Louis; also reported from Becker, Aitkin, Itasca, Mille Lacs, Lake, Cook, Stearns, Hennepin, Washington, Sibley, Nicollet.

Common Grackle

Nested in Itasca, St. Louis, Stearns, Pope, Big Stone, Hennepin, Ramsey, Cottonwood, Pipestone, Rock; also reported from 31 other counties; more reports than usual.

Brown-headed Cowbird

Nested in Aitkin (parasitized Tennessee Warbler), St. Louis (Chipping Sparrow), Lake (Black-throated Green Warbler), Stearns (Eastern Phoebe, Yellow Warbler, Western Meadowlark, Chipping Sparrow), Sherburne (Cardinal), Hennepin (Cardinal), Washington (Mourning Warbler), Cottonwood (Common Grackle), Rock (Orchard Oriole); also reported from 31 other counties.

Scarlet Tanager

Reported from 22 counties.

Cardinal

Nested in St. Louis, Sherburne, Hennepin, Ramsey, Houston; also reported from 16 other counties north to Aitkin (6-8, NJ) and St. Louis (MMC).

Rose-breasted Grosbeak

Nested in St. Louis, Hennepin, Ramsey, Le Sueur, Winona, Houston; also reported from 35 other counties; more reports than usual.

Blue Grosbeak

Pair seen at Blue Mounds St. Pk., Rock Co. on 6-12 (KE) and 7-3 (B. Litkey); in August up to three pairs were seen here plus a female carrying nesting material and one or two juveniles; another male seen near Jasper, Rock Co. on 7-23 (KE).

Indigo Bunting

Nested in Itasca and Stearns; also reported from 31 other counties.

Dickcissel

Nested in Wabasha and Rock; also reported from 21 other counties north to Clay, Todd, Stearns.

Evening Grosbeak

Nested in St. Louis; also reported from Itasca, Lake, Cook.

Purple Finch

Nested in Ottertail, Aitkin, St. Louis; also reported from 12 other counties.

Pine Siskin

Nested in St. Louis and Stearns; also reported from Ottertail, Itasca, Mille Lacs, Lake, Cook, Stearns (6-1 to 7-9, NH), Hennepin (6-15, P. Fuller; all summer, VL; 6-1 and 7-3, WKE), Ramsey (7-20, EC).

American Goldfinch

Reported from 44 counties; more widespread than usual.

Red Crossbill

Reported from Lake of the Woods (PH); St. Louis (MMC; 6-4 to 6-16, GN); Stearns (6-1 to 6-10, NH; 6-28, NF).

The Loon**White-winged Crossbill**

Two reports; 6-2 and 6-3 St. Louis (JG); 6-23 Isabella, Lake Co. (JG); late spring migrants?

Rufous-sided Towhee

Reported from Clearwater, Hubbard, Pine, St. Louis, Anoka, Dakota, Olmsted, Winona, Houston.

Savannah Sparrow

Reported from 30 counties; more reports than usual.

Grasshopper Sparrow

Nested in Clay and Rock; also reported from 24 other counties.

Le Conte's Sparrow

Reported from Mahnomen, Wilkin, Aitkin, St. Louis (Duluth and Ely; GN, JG, MMC); fewer reports than usual from northwest Minnesota.

Henslow's Sparrow

6-2 and 7-13 Winona Co. (KE, RJ); only reports.

Sharp-tailed Sparrow

Summered in two marshes in Aitkin Co. (3-5 birds, TS); also seen 7-28 Waubun marsh, Mahnomen Co. (KE).

Vesper Sparrow

Nested in Pope, Mille Lacs, Rock; also reported from 31 other counties.

Lark Sparrow

Nested in Anoka and Polk; also reported from Stearns, Hennepin, Scott, Nicollet.

Dark-eyed Junco

Reported from Lake of the Woods, Clearwater, St. Louis, Lake, Cook.

Chipping Sparrow

Nested in Morrison, Aitkin, Lake, Stearns, Wright, Hennepin, Swift, Cottonwood; also reported from 38 other counties; more reports than usual.

Clay-colored Sparrow

Nested in Polk; also reported from 25 other counties.

Field Sparrow

Nested in Winona; also reported from 20 other counties north to Big

Stone and Stearns; more reports than usual.

White-throated Sparrow

Nested in Lake; also reported from Lake of the Woods, Clearwater, Aitkin, Itasca, Carlton, St. Louis, Cook, Marshall.

Lincoln's Sparrow

Reported from Aitkin and Lake.

Swamp Sparrow

Nested in Mahnomen and Wright; also reported from 30 other counties.

Song Sparrow

Nested in St. Louis, Murray, Rock, Winona; also reported from 35 other counties.

Chestnut-collared Longspur

Nested at Felton prairie, Clay Co. (6-27, two eggs, PH); 30 still present there on 7-28 (KE); also 6-15 and 6-18 at Duluth (D. Scheer, MMC).

SPRING MIGRANT SHOREBIRDS

Semipalmated Plover

6-3 Clay (EA); 6-6 Lac Qui Parle (JG).

Ruddy Turnstone

6-6 Lyon (JG).

Lesser Yellowlegs

6-1 Clearwater (KZ); 6-4 Yellow Medicine (VL); 6-6 Lyon and Lac Qui Parle (JG).

Pectoral Sandpiper

6-10 Clay (EA).

White-rumped Sandpiper

Eight reports in June up to 6-22 in Clay, Carver, Yellow Medicine, Lyon, Lac Qui Parle, Duluth, Chippewa, Swift (6-22, CH).

Baird's Sandpiper

6-12 Lyon (VL).

Least Sandpiper

6-1 Carver (ES); 6-2 Wright (ES).

Dunlin

6-1 Clay (KZ); 6-1 Carver (ES); 6-2 Henepin (OJ).

Stilt Sandpiper

6-1 Clay (KZ).

Semipalmated Sandpiper

Eight reports in June up to 6-21 in Carver, Goodhue, Yellow Medicine, Stearns, Wright, Lyon, Duluth (6-21, RJ).

Western Sandpiper

6-1 Carver (ES).

Sanderling

6-1 Goodhue (RJ).

CONTRIBUTORS

Don Bolduc, DB

Betty and Doug Campbell, BDC

Elizabeth Campbell, EC

Marjorie M. Carr, MMC

R. J. Christman, RC

Mable Coyne, MC

Richard C. Davids, RD

Mrs. Arnold DeKam, AD

Whitney and Karen Eastman, WKE

K. R. Eckert, KE

Mrs. O. L. & Frederick Eckhardt, OFE

Mardene Eide, ME

D. L. Evans, DE

L. and C. Falk, LCF

Mrs. L. A. Feil, LF

Herbert J. Fisher, HF

Norman L. Ford, NF

Joan K. Fowler, JF

Janet C. Green, JG

Karol Gresser, KG

Carrol Henderson, CH

N. M. Hiemenz, NH

Bruce A. Hitman, BH

P. B. Hofslund, PH

Charles L. Horn, Jr., CLH

M. Ivanovs, MI

Nancy A. Jackson, NJ

Robert B. Janssen, RJ

Oscar L. Johnson, OJ

Maria Krogseng, MK

Violet Lender, VL

F. Z. Leshner, FL

Wm. H. Longley, WL

Wynn and Don Mahle, WDM

Dennis Meyer, DM

Gerald J. Niemi, GN

Fran Nubel, FN

Gary Ritchison, GR

Dean G. Schneider, DS

Madeline Schuller, MSc

C. K. Sherck, CS

Beatrice A. Smith, BS

Mary Sommers, MSo

Evelyn T. Stanley, ES

Sarah Vasse, SV

Mark Wright, MW

Kevin J. Zimmer, KZ

**Box 47,
Garretson, South Dakota 57030**

COLOR-MARKED COWBIRDS

Over 7,100 Brown-headed Cowbirds were banded and color-marked in west-central Kansas during 1974 as an aid in studying their movements and hopefully to determine their place of origin. Birds were marked with red, yellow, or green plastic leg streamers. Fall and winter observations revealed 27 individuals from ten locations in Kansas, Oklahoma, Texas, and Mexico. However, data from spring and summer movements are needed. Observers should report location and date of sighting, sex of bird, and color of leg streamer to Richard A. Hill, Department of Biology, Fort Hays Kansas State College, Hays, Kansas 67601.

1974 completes the final year of banding for this study. The number of observations has been very encouraging. With your assistance I am very optimistic about reports of spring and summer movements of color-marked cowbirds. **Richard A. Hill.**

notes of interest

MINNESOTA'S FIRST RECORDED LEWIS' WOODPECKER — “. . . and what to my wondering eyes should appear,” not St. Nick and not on the night before Christmas, but rather a Lewis' Woodpecker on the fourth day of Christmas.

On December 28, 1974 while participating in the Sherburne National Wildlife Refuge Christmas Bird Count Bruce Moore, Frank Swendsen and myself observed and identified a Lewis' Woodpecker. Our first sighting of the bird was on a utility pole near the home of the Gilyard family located at the junction of Sherburne County Roads 3 and 23. By its posture on the pole we were immediately aware that it was a woodpecker but its color was not that of a woodpecker normally seen in Minnesota. The back, tail and wings appeared



LEWIS' WOODPECKER, SHERBURNE CO.
Photos by Lloyd Paynter

to be black in color. When the reflected sunlight on this bright day was viewed at the proper angle the black color was highlighted by an iridescent green. The breast and belly were strawberry red in color. A light grey collar with feathers tipped in black extended around both the throat and nape. A deep red color on the forehead, face and chin completed the color pattern. During our first observation the bird made several flights, some of these being up to about fifty yards in length. The flight was very level and steady, not the typical undulating flight of most woodpeckers.

Shortly before noon, after about twenty minutes of observation and pictures taken for verification of identification this sighting was placed on the Hot-Line. By two-thirty p.m. a number of observers had arrived from the Twin City Area to share in the sighting of the 366th species of bird identified in Minnesota. During the next several days this bird was viewed by many observers. On January 26, 1975 I and my sons Brad and Mark returned to Sherburne County to attempt to determine if the Lewis' Woodpecker had survived the blizzard of January 11 and 12. Much to our delight we found the bird alive and well still residing in the same area. **Oscar L. Johnson, 7733 Florida Circle, Brooklyn Park, Minnesota 55445.**

HYPOTHETICAL BREWER'S SPARROW SIGHTING — On the morning of September 28, 1974 I was birding at Blue Mounds State Park in Rock Co., hiking along the ridge of the Sioux quartzite cliffs that form the eastern boundary of the park's virgin prairie. This 1½ mile ridge forms a natural north-south flyway for migrants that follow the oaks lining the cliffs. The day before a strong cold front from the northwest had passed through the area, and on the 28th it was overcast, cold, with moderate winds from the northwest. As I hiked south from the main park drive along the cliffs, a wave of mostly kinglets, Yellow-rumped Warblers and sparrows was passing through. After about ½ mile I spotted a medium-sized sparrow in an oak which I glanced at briefly and identified as a Clay-colored Sparrow because of its familiar face-pattern. I was about to move on when an unusual long warbling song which I had never heard before came from this same oak (the top of the tree was about at my eye-level since it grew from below the cliffs about 40 feet below). This song was a hard-to-describe jumble of notes that lasted about 10 seconds at a time. The nearest thing I could think of at the time was a House Wren or Ruby-crowned Kinglet, but still not quite like those familiar songs. As the bird sang again, I scanned the tree (about 30 feet away) with my binoculars and picked out a small flock of Ruby-crowned Kinglets feeding among the leaves. I then assumed that I was hearing a kinglet giving an odd song and started to move on. But just then the song came again, and again sounded so unusual that it just didn't sound like a Ruby-crowned Kinglet. I scanned the tree again to pick up the singing bird and after a few seconds the "Clay-colored Sparrow" reappeared, but to my surprise it opened its beak and began singing the song in question. Since the Clay-colored's song is no more than a few unmusical buzzes, I knew this was something else. What came to mind then was a Brewer's Sparrow which I knew looked a lot like a Clay-colored and had a long, warbling song such as this. But since I had never heard one sing (I had seen Brewer's twice before in Wyoming), the best I could do was study the bird's plumage and try to remember the song until I could get home and compare it to Peterson's "A Field Guide to Western Bird Songs." The bird was about 30 feet away and slightly below eye-level. It was of average sparrow size, had an unstreaked breast, and had the dark cheek patch and black whisker mark like the Clay-colored. But this bird lacked the grey "collar" that I have noted on

the nape of Clay-colored. Also this bird had an all brown cap with no median stripe as the Clay-colored has. I knew that this was the distinguishing field mark between these two species, and I clearly saw this twice when the bird would come into view among the leaves. Since I was slightly above the bird I could see this mark clearly. I watched this bird for about 10 minutes, again making sure that this sparrow was indeed doing the singing. It sang about 10 times in all, but when I tried to move down the cliffs to get another angle, the sparrow and kinglets had moved on and were not seen again. I returned home about an hour later and listened to Peterson's record which includes three songs for the Brewer's. The first two songs were short and somewhat musical series of buzzes that were nothing like the bird I had heard. But the third recording was very much like what I had heard, long and musical and rambling. The only difference is that on the record there were a few brief buzzy passages in the song, while the bird I heard gave no buzzy notes. Since the Brewer's song varies considerably, I would assume that one could sing without any buzzes, but this is only a guess. One more familiar with Brewer's Sparrows would have to answer that. I will not attempt to describe the song in question any farther here, but I would refer the reader to Peterson's record and listen to song #3.

In conclusion, I believe that the bird was a Brewer's Sparrow, though two reservations come to mind. First, can a Brewer's sing with no buzziness as my bird did, or is it true that no matter how much the song varies there must always be some buzzy passages? And second, is it possible for an immature Song Sparrow or Chipping Sparrow or something else which might look like a Clay-colored or Brewer's to sing an unusual song like what I heard? It seems impossible that a young sparrow of any kind could sing like my bird, but there is nothing about the field marks I observed that would preclude an odd-plumaged immature or juvenal sparrow of another species. All I know is that what I saw looked just like a Brewer's Sparrow and that what I heard sounded more like a Brewer's than anything else I can think of. If correct, this would be the first sight record for Minnesota, earning a place on the state's unsubstantiated hypothetical list. Brewer's Sparrows occur regularly in western South Dakota, and the strong winds of the preceding cold front may have blown this bird to Blue Mounds. Even though Brewer's Sparrows do not normally hang around in oak trees, migrating birds can show up in most any habitat and my observation was on the edge of an extensive virgin prairie complete with rock outcroppings and prickly pear cactus — a lot like the Brewer's normal habitat. **Kim Eckert, Box 47, Garretson, South Dakota 57030.**

A MUTE SWAN OBSERVATION — On October 29, 1974, I saw one swan on the pond behind Normandale College, along France Ave. So. in Bloomington, Hennepin County. It was raining and quite dark for 4:30 p.m. but the bird was clearly a large, white, mature swan with some dark shading on the head and upper neck. From viewing the bird that night and the next morning, I concluded it was a Mute Swan. The bill was a dark rose color with black at the base and tip and a black mark on each side of the center, but the knob at the base was not particularly large. The best illustration of the type of bill is on page 99 of **The Family Life of Birds** by Dossentach and Buhner. This shows the color and markings as they appeared to me. The bird flew around the pond two different times, one time it stayed up quite a while, rose high almost as if it were going to leave and then circled more and finally settled down again. There did not appear to be any feathers missing in the wings during flight, nor did it show any difficulty in flying —

it was truly graceful as a swan! At one point a Great Blue Heron flew low over the swimming bird and the threat posture of arched neck and raised wings was quickly presented to the heron. In repose the neck did not appear arched all the time. At times the feet were brought out of the water for grooming purposes and they appeared to be a dark, charcoal gray, not as black as the base of the bill. I checked the Minneapolis Park Board and a local apartment complex for escapes but they had none. An employee of the college is reported to have seen the bird over the weekend, but I know of no other reports after that time. Perhaps next spring will bring us more Mute Swans for observation. The question of wild or escape still stands for this bird, I believe. Binoculars — 7x35 — and Balscope 20 and 30 power were used. **Karol Gresser, 8850 Goodrich Ave. S., Bloomington, Minnesota 55437.**

MUTE SWANS IN WESTERN LAKE SUPERIOR — On May 27, 1974 Henry Roberts, who writes a nature column for the Duluth newspaper, received a call that there were three Mute Swans accompanied by one Whistling Swan on Lake Superior near 30th Ave. East, Duluth. Henry notified Marj Carr and me, and we all met at the lakeshore to view these beautiful birds and to record the event on film since this was the first time Mute Swans had been seen in a wild context in Minnesota. About a week later Dennis Olson, the park naturalist at Jay Cooke State Park, reported to me that he had seen three large swans followed by a smaller swan fly down the St. Louis River near the park. I also learned from another Duluth Audubon member, Burnett Hojnacki, that she had seen three Mute Swans at Ashland, Wisconsin on May 9, 1974 and that she had also seen one in a small bit of open water in the Ashland harbor on February 25, 1973.

Later in the summer I received the following letter from Keith Denis of the Thunder Bay Field Naturalists Club:

“July 17, 1974 — three Mute Swans were reported at Eldorado Beach, which is about twenty miles North-east from Thunder Bay City along the shore of Thunder Bay. It is almost at the NE end of the bay.

Black and white photographs, one of which was reproduced in the local paper, were not satisfactory for identification. Neither were the descriptions obtained from residents along the beach; i.e. the bill was reported as yellow, orange, pink, and with no black, black spectacles, half-black; and the necks were both held straight and held curved. It did appear that the birds had been in the area about two weeks prior to the published report.

Mr. Douglas Asquith, our president, and I made several trips to the area and finally saw the birds July 30, 1974. Mrs. Harold Tamblin, whose summer home is at Land's End, just east of the Eldorado Beach, took several photographs in color at close range, and there is no doubt that the three birds are Mute Swans.

The birds were quite unafraid of humans compared to Whistling Swans. They came to local docks to pick up food. None of the birds were banded. Later it was mentioned that the birds did not fly after the week of August 9 until about August 27. We obtained two molt feathers which were examined by Dr. John Ryder. We are trying to obtain further information on the date they leave the area.

Previous local records for Mute Swans are October 30, 1940 by Dr. A. E. Allin; and three at a lake near Caramat (north of Marathon about 30 miles) where they were photographed in the Spring of 1963 and were present in 1965 from May to August, as reported by Mrs. H. Plunkett.”

No other information about these birds came my way until January 1975 when I went back to Grand Marais the week after the M.O.U. — Thun-

der Bay Naturalists field trip on the North Shore and found three Mute Swans in the Grand Marais harbor. I was greatly surprised since they obviously had not been around the week-end before when all the bird-watchers had been there. According to residents of the town, the three swans arrived on Monday, January 27th. They were very tame and fed with the flock of about 100 Mallards and Black Ducks that winter there.

There are several questions that one wishes these three swans could answer. Do all the observations from Ashland, Duluth, Thunder Bay and Grand Marais refer to the same three birds? If they are the same birds, where were they all fall and early winter? And, most importantly, where did they come from? Mute Swans are an Old World species, widely introduced in this country in parks and zoos. There are populations that have become established in the wild in the Long Island-New Jersey area, and in the Traverse Bay area of Michigan. It is possible that the Lake Superior birds are wanderers from the Lake Michigan area. If anyone has any other observations of these birds or clues as to their origin, I would appreciate hearing from them. **Janet C. Green, 9773 North Shore Drive, Duluth, Minnesota 55804.**

PEREGRINE FALCONS IN CLAY COUNTY — On November 6, 1974 we went to Crookston to see the Greater Prairie Chickens on the Pembina Trail. We took Interstate 75 north from Moorhead. Shortly before coming to Georgetown, my younger brother Barry spotted a fast-flying hawk about to cross the highway in front of us. The hawk was about the size of a Marsh Hawk, both in length and wingspan. The wings were narrow and pointed; and the tail was long and somewhat rounded at the end. It lacked the white rump of the Marsh Hawk however, and its flight was faster and choppier. All of these things meant it had to be a falcon. It was much too large to be either an American Kestrel or Merlin, so that narrowed the possibilities even further. By the time we had noted these field marks, the bird was across the highway and angling away from us. This kept us from seeing the head or facial pattern. However, the slate-blue back and wings (darker at the tips), and lack of black axillars confirmed it as a Peregrine Falcon. I was surprised to see a Peregrine that late in the year. There was a lot of snow on the ground, and the wind chill factor was well below freezing. When we got back I checked Bent's "Life Histories of North American Birds of Prey," and it was at least two weeks later than the late dates given for Minnesota. Georgetown is just a little ways west of Felton where we saw a Peregrine on September 28. Bill and Mary Wyatt had found and photographed it as it sat on a telephone pole. (See front cover) They alerted others, and we made it out there at sundown. The bird sat quite tamely as we approached to within about 40 feet. It was still there when we left 20 minutes later. Although it's not probable, it is conceivable that this was the same bird we saw on the trip to Crookston. **Kevin Zimmer, 701 19th Ave. So., Fargo, North Dakota 58102.**

AN ESCAPED AMERICAN FLAMINGO? —

Species: American Flamingo.

Location: Agassiz National Wildlife Refuge

Date: September 25, 1974.

Distance: About a mile out on Lake Agassiz.

Optical equipment: Balscope with turret, 20x and 30x zoom scope.

Light: Sun was out and light was good but distance and heat waves created serious problems; wind gusting to 25 or 30 mph shook the tripod mounted

balscope badly. The zoom scope was used on a window mount from one of the refuge trucks.

Circumstances of the sighting: The bird was first found by a group of students from Northland College under the direction of Orren Bendickson. They reported during the morning that there was a large pink wading type bird out on the lake. I heard the report about noon and went out to the south side of the lake in the afternoon. I could see a large pink blob about a mile away; it appeared to be swimming. I then went around to the west side to see if I could do any better from that direction. I found a spot where the trees protected the scope from the wind and watched for about an hour. The bird appeared so large that at first I concluded that it was a color marked White Pelican — it was very near a small group of pelicans which were also on the lake. The head and neck didn't look quite right but the pelicans weren't actually identifiable either except when one occasionally got off the water and flew around a bit. Finally the pink bird and several pelicans flew simultaneously and I was startled to see that the wing spread of the pink bird was not nearly as large as that of the pelicans and that it had a long neck stretched out ahead as it flew. I failed to notice the legs and was unable to see the shape of the head clearly. I then checked the book to find out the size of a Flamingo and concluded that, in spite of the obvious stupidity of an observation made under circumstances in which it is difficult to tell a Flamingo from a pelican, it was unquestionably a Flamingo. I then went by the office and found that Bendickson and Ass't. Refuge Manager Howard Hill had in the meantime also identified the bird as a Flamingo. Hill tells me that they observed the bird from the south side of the lake using the window mounted zoom scope. He says he could see the long legs clearly and during a period when the heat waves weren't too bad he clearly saw the distinctive head and beak of the bird. I believe his observation was made at least half an hour before I went out. Heat waves got progressively worse as the afternoon went on and no better sightings were obtained. I would rather it had been a color marked pelican — we could probably find out where that came from but zoos don't like to admit they let their animals escape and it doesn't seem likely that a truly wild Flamingo would show up here. **Sarah Vasse, Agassiz National Wildlife Refuge, Middle River, Minnesota 56737.**

A LATE CAPE MAY WARBLER IN LAKE COUNTY — While birding at Encampment Forest in Lake County on November 2, 1974 with Bill Pieper, Paul Egeland, and Dick Ruhme, I was fortunate to get a fast look at an immature female Cape May Warbler. There was much bird activity around the feeders near the caretakers house about mid-day. Black-capped Chickadees, White and Red-breasted Nuthatches, Blue Jays, and a single Evening Grosbeak were coming to the feeders. White-winged Crossbills and Pine Siskins were seen and heard around the area. While I was watching the feeder a small warbler-sized bird sat on the feeder, it was very greenish looking to the naked eye. I just had time to focus the binoculars on the bird and note the warbler bill, striped breast, and light yellow rump. The bird flitted away after a few seconds and in spite of intensive search over the next half hour we could not locate the bird again. The previous late date north for a Cape May Warbler in Minnesota is the exceptional date of October 26, 1970 at Duluth, seen by Janet C. Green. In the south a single bird was seen at a feeder in St. Cloud from November 28 to December 4, 1961, a most exceptional record. (**The Flicker** 34:62). **Robert B. Janssen, 14321 Prince Place, Minnetonka, Minnesota 55343.**

A GYRFALCON AT HAWK RIDGE—

On November 20, 1974, several assistants and I were manning the banding station on the Hawk Ridge Nature Reserve, Duluth. At about 3:30 in the afternoon a bird appeared and responded to the bait (pigeon) very similar to a Goshawk. As it hovered briefly over the bait it looked similar to an immature Goshawk but strangely different. On approaching the trapped bird I identified it as a Gyrfalcon which upon closer inspection proved to be an immature gray female which weighed 1550 g (55.4 oz.) and appeared to be in good condition. It was banded with a USF&WS lock-on type band, photographed, (See three photos) and released. **David L. Evans, Dept. of Zoology, North Dakota State University, Fargo, North Dakota 58102.**



Photo by Marj Carr



GYRFALCON
Photo by Marj Carr



GYRFALCON
Photo by Marj Carr

A LATE BARN SWALLOW — On November 2, 1974 while birding along the North Shore of Lake Superior with Bill Pieper, Paul Egeland, and Dick Rhume, we had the opportunity to observe a late Barn Swallow. The location where we saw the bird was Paradise Beach, Cook County a few miles west of the Village of Hovland. The bird, first spotted by Dick Ruhme, was seen out over the lake flying in a northeastward direction. We soon lost sight of the bird in the dim late afternoon light. This is a record late date for the state and exceptionally far north in the state for this late in the season. The previous late date north was October 25, 1955 at Duluth (J. G. Hale), and in the south, November 1, 1970 in Lyon County (Paul Egeland) and October 29, 1944, Hennepin County (E. D. Swedenborg) and October 29, 1973, Pope County (R. B. Janssen). **Robert B. Janssen, 14321 Prince Place, Minnetonka, Minnesota 55343.**

A LATE NESTING RECORD OF THE BLACK-BILLED CUCKOO — On September 8, 1974, a nesting Black-billed Cuckoo was discovered near the southeast shore of Pickerel Lake, Sherburne County, Minnesota. The nest, constructed entirely of twigs, was approximately fifty inches above the ground in a clump of hazel shrubs. The adult bird permitted close observation for a short time but upon flushing revealed the presence of a partially feathered juvenile and an intact egg. On the following day the adult bird was once again on the nest, the juvenile was little changed, and the egg was still intact. Six days later, on September 15, a return to the site found the nest no longer occupied and no evidence of the previously unhatched egg. This nesting record is of particular interest as this region of the state was sub-

jected to unusually cold temperatures on several occasions in early September. A previous September observation of Black-billed Cuckoo nesting in Minnesota was by D. W. Meeker in 1907 as reported in Thomas S. Roberts, **Birds of Minnesota. David C. Kramer, St. Cloud State College, St. Cloud, Minnesota 56301.**

POSSIBLE BLUE GROSBEAK NESTING AT BLUE MOUNDS STATE PARK

— For the past several years the Blue Grosbeak has been known to be a rare, local, but regular summer resident in southwestern Rock Co. In nearby northwest Iowa and southeast South Dakota this species is also present in small numbers. In Rock Co. it has been seen mostly on roadside powerlines in the vicinity of the towns of Beaver Creek, Manley and Hills, and in the past few summers there have also been reports from rural Edgerton in southwest Murray Co. But in spite of all these reports there have been no nesting Blue Grosbeak reports other than a sighting of juvenal birds with adults on one occasion along the South Dakota line. This lack of nesting data is due primarily to the lack of resident birders in the area, but since moving to nearby Sioux Falls, South Dakota I had several opportunities in summer 1974 to look for Blue Grosbeak in Rock Co. From mid-May on the southwest corner of the county was frequently checked for grosbeaks, but to my knowledge none were found in 1974 in this their old area. I did find stray birds in late May and early August in northwest Rock Co., but these were non-residents appearing only once. Blue Mounds State Park, near the center of the county, proved to be the only reliable spot for grosbeaks in 1974. On June 12 a pair was seen along the main park drive for the first time. Though I visited the park several times later in June and July, I never saw another grosbeak until August 5. A few days earlier I had heard that Bill Litkey had found a pair in the park on July 3 in a brushy area near the swimming beach. Since I had not been birding that particular spot previously, I checked this out on August 5. Sure enough, a pair of Blue Grosbeaks was there, the male singing away and the female carrying apparent nesting material to an impenetrable wild plum thicket. While watching this pair I heard another male singing across the lake to the north, another area that I had not been birding. I spotted the male singing from atop a wild plum tree, so I hiked over to check for a possible nest. As I neared the singing perch, the male flew off, but I could see what appeared to be a large sparrow in the tree. Suddenly this "sparrow," which I then realized was a juvenal, and a female Blue Grosbeak flew out. I found a nest in the plum thicket, thought to be a Blue Grosbeak nest but it could not be positively identified.

I returned to Blue Mounds two days later and again heard and saw the same two singing males, but could find no females, nests or young. The Blue Grosbeak's song is a loud sustained warble like a Purple Finch or Orchard Oriole. It can be heard at least $\frac{1}{4}$ mile away, but previously I undoubtedly overlooked the song by thinking it to be one of the many Orchard Orioles that summer in the park. And again, the birds were singing from a part of the park which I had not been birding. On August 17, Bob Janssen, Paul Egeland and Ray Glassel met me at Blue Mounds, and with the help of Paul's exceptional hearing we located three singing males and two females. The third male was along a wooded stream between the park's two lakes, about $\frac{1}{4}$ mile west of the first two pairs. Again no nests or young were seen, but on August 23 I found another possible empty Blue Grosbeak nest about three feet up in a plum tree near the park's swimming beach. The same two paired adults were nearby but since no young were around I decided to leave this nest alone. This same pair was again seen on September 2 and 7, and

also on the 2nd another female was seen along the stream where the third male had been found on August 17. Two female Blue Grosbeaks were still present at the plum thicket near the swimming beach on September 15, and what I assume to be an immature male was at this same spot on the very late dates of September 29 and October 5 (this bird had the typically huge Blue Grosbeak bill, and in poor light appeared to be slate gray all over with no other distinguishing marks). Anyway, all this ends on October 13 when I found another possible empty nest about six feet up in a plum tree near the swimming beach. This and the other nearby nest (found August 23) were collected and are now at the Augustana College Biology Department in Sioux Falls. I would guess that this last nest if it was a Blue Grosbeak's, was used to raise young while the other nest was either a decoy or an unsuccessful nesting attempt.

In conclusion, at least three pairs of Blue Grosbeaks summered at Blue Mounds in 1974, and at least two pairs raised young (assuming that the late-lingering slaty immature was fledged here). This species seems to have a fondness for wild plum thickets, seems to be a very late migrant and breeder, and the male has a song that I find easy to confuse with some Orchard Oriole songs. It will be interesting to see if Blue Mounds State Park in future years continues to be the favored spot in Rock Co. for the Blue Grosbeak. — **Kim Eckert, Box 47, Garretson, South Dakota 57030.**

POSSIBLE AMERICAN WOODCOCK NESTING IN SOUTHWEST MINNESOTA — Although the Woodcock is occasionally found in migration in southwest Minnesota, it is very rare or almost unknown in that part of the state in summer. But in late spring and summer of 1974 in Pipestone Co., I found Woodcock in two locations that may have been nesting. The first was in Pipestone National Monument on May 27. A bird flushed up from almost underfoot as I hiked along the Monument's heavily wooded stream. It flew off out of sight and was not seen again. I saw that it was a Woodcock and then searched the immediate area for a nest which seemed possible because of the appropriate habitat and the bird's sudden flight. But nothing was found that day nor on several subsequent hikes in the same area later that summer. But it is possible that there was a nesting that I overlooked since the Woodcock and its nest are well-camouflaged. The second location was at nearby Split Rock Creek State Park. On June 11 I was out with my dog birding near some willows and heavy brush along the edge of the park's lake. My dog (who has experience flushing Yellow Rails in Aitkin Co.) was wandering through the swampy area and suddenly flushed two Woodcock that flew up briefly before landing again in the thick weeds. The brush was too tall and thick for me to investigate further, but the presence of a pair in June in such appropriate habitat indicated probable nesting. Also when I returned with my dog to this same spot on August 5, she again chased something through the brush that may have been Woodcock, but unfortunately nothing flew out into the open, and again the swamp was too thick to penetrate. Nesting Woodcock should be watched for in wet, thickly wooded areas in southwest Minnesota such as at Pipestone Nat. Mon. and Split Rock Creek St. Pk. They are local breeders in nearby southeast South Dakota near Brookings (Oakwood Lakes State Park) and Canton (Newton Hills State Park). The easiest way to locate them is by listening for their display calls after dusk and before dawn. **Kim Eckert, Box 47, Garretson, South Dakota 57030.**

COMMENTS ON THE NOVEMBER "YELLOW-BELLIED FLYCATCHER." — After reading the report by Doug Campbell (*Loon* 46(1):39-40, Spring 1974)

of a Thanksgiving Day (November 24, 1973, in Minneapolis) Yellow-bellied Flycatcher, I recalled an earlier Fall record for South Dakota that had prompted my inquiry (**South Dakota Bird Notes** 19(1):18, March 1967). As with the Campbell's observation, above, the description of the South Dakota Yellow-bellied Flycatcher, although seemingly adequate, did not preclude a first fall/winter Acadian Flycatcher. The readers' attention is invited to an excellent paper by Robert M. Mengel (**Auk** 69(3):273-283, July 1952) entitled, "Certain Molts and Plumages of Acadian and Yellow-bellied Flycatchers." Mengel carefully reviewed the past literature, especially where certain specimens had been designated that could be consulted again for re-evaluation. He demonstrated that the older literature was replete with misinformation about plumages of these two species. Regarding the first winter plumage of the Acadian Flycatcher, Mengel notes two important points (italics his): "(1) The color of the **entire underparts may be clear uniform lemon-yellow** (or sulphur-yellow), approaching the extreme in **flaviventris** (Yellow-bellied) in this coloring and yellower than many of that species; (2) **The throat may be suffused with pale yellow**, invalidating a character that has frequently been used to separate this species from the Yellow-bellied Flycatcher." Because of the vast numerical difference in number of reports for these two species in Minnesota, it might be argued that the Thanksgiving Day bird was, based on "probability," a Yellow-bellied Flycatcher. However, if we reduce ornithology to "probabilities," I think we also reduce its viability as a science. I could also counter-argue that the grossly disproportionate number of records for the two species in Minnesota, as a function of observer density/placement/timing/awareness, is an unreliable artifact that defies probability. But then, any **Empidonax** foolish enough to appear in Minnesota near the first of December would defy probability anyway. At that very late date, unless it chanced to vocalize (or the specimen were collected), I would be inclined to call it a toss-up between the two species. **Ronald L. Huber, 2896 Simpson St., Roseville, Minnesota 55113.**

SECOND HIGH YEAR LIST TOTAL FOR MINNESOTA — In 1963, Ron Huber saw a record 290 species of birds in one year in Minnesota. I thought it might be of interest to readers of "The Loon" that during 1974, I saw 289 species of birds in the state. This total is based on the same counting of species as Ron used in 1963. If the lumped and split species as defined by the A.O.U. revisions in 1973, are subtracted and added respectively my total was 288. Ron's total for his 1963 list using the new way of counting, I believe, would also have been 288.

In seeing 289 species in Minnesota there were some very eventful observations. 1974 was an exceptional year for rarities in the state. I added no less than nine species to my Minnesota Life List. These were: Say's Phoebe, Mountain Bluebird, Scissor-tailed Flycatcher, Black-throated Sparrow, King Eider and Lewis' Woodpecker. The latter two species were new for my U.S. Life List also. Plus these birds, the two new split species were added, the Thayer's Gull and Willow Flycatcher. Plus all of this two Hypothetical species were seen, the Scotts' Oriole and Black-hooded Parakeet. Both of these birds were counted on my year list, but, were not added to my state list as their wildness and origin remain in doubt.

The highlights of the year included an April 13 trip to Blue Mounds State Park in Rock County where both the Say's Phoebe and Mountain Bluebird were added to my state list. Probably the greatest experience of the year and of all by birding experiences in Minnesota was the discovery, with the help of Jan Green, of the Black-throated Sparrow at Stoney Point along

the North Shore of Lake Superior on September 20. This was the first time the bird had ever been seen in the state. On December 12, Jan Green and I had the exciting experience of seeing a King Eider, Harlequin Duck, and Barrow's Goldeneye at the same time in the harbor at Grand Marais. To finish off the year the observation of the Lewis' Woodpecker, discovered by Oscar Johnson, in Sherburne County on December 28, was a fitting climax to an amazing year.

Since 1963, there have been many species added to the Minnesota list which can be seen on an almost yearly basis. Such species are Turkey, Little Blue Heron, Cattle Egret and Acadian Flycatcher, which make it easier to get a high year list total. However, with the lumping of at least five Minnesota regular species, the task of attaining a big year list becomes more difficult. An added difficulty is the scarcity of owls in recent years. In 1974, I only recorded six species of owls, Ron Huber in 1963 had 11 species! This latter situation makes it extremely difficult to reach the 290's on a yearly basis. **Robert B. Janssen, 14321 Prince Place, Minnetonka, Minnesota 55343.**

HUNTING FOR RED-NECKED GREBES ON LAKE MARY — The southernmost part of Lake Mary (including the smaller lake called Little Mary) offers an excellent habitat for Red-necked Grebes to breed. Lake Mary, one of the largest lakes in the area, is located in Douglas County southwest of Alexandria, Minnesota. In order to see the grebes, you must scan their habitat by boat. The best location to rent a boat or launch your own, is on the west side of the lake as it is closer to the area of the nesting grebes. To reach any of the resorts with the accommodating facilities, situated on the west side of the lake, drive 7 miles west of Alexandria on Highway 27 and turn south on Highway 114. All of the resorts branch off from Highway 114. In the summer, the grebes are most readily seen in early morning or evening just before the sun goes down. They are found distributed throughout the dense reeds that follow the shoreline and that make up the divider that separates Lake Mary from Little Mary. This year (1974) I've seen as many as 15 individuals at a time scattered over a large area. At times they cluster in pairs or with their young, but never in a large group. I have seen these elusive waterbirds now for three straight summers during the months of June and July. I have also recorded such breeding birds as the Yellow-headed Blackbirds, Great Blue Herons, Franklin's Gulls, and Forster's Terns (reed divider mentioned above) in the same area. Lake Mary is an excellent place to both watch and study the breeding habits of the Red-necked Grebes, and it offers a sure count for the lister during the summer months. But it also opens unlimited possibilities for intense birding in this part of Douglas County. **Jim Zimmer, 306 7th Ave., Charles City, Iowa 50616.**

AN UNUSUAL SUMMER VISITOR — On June 17, 1974 while attending a mist net in Inver Grove Township, I removed an unexpected bird, which became the wearer of Band No. 1161-81455. It was a Yellow-breasted Chat, the first I have seen in Minnesota. While it would not be unusual to encounter this bespectacled, yellow-vested warbler further south, its presence in Dakota County was something else. The particular specimen was a fully-developed and robust male and it was my thought that he might well be paired to a nesting mate. However, although the nearby habitat was quite suitable for such nesting, I neither found the nest, the mate, nor any further sign of this particular fellow. Owing to their usually quiet, almost clandestine behavior it may be that there was, indeed, a viable nest in the vicinity. The prospect for the latter part of the summer is heightened in interest by the

lookout for the appearance of young chats. **R. J. Christman, Macalester College Biology Station, Inver Grove Heights, Minnesota 55075.**

Editor's Note: The Yellow-breasted Chat was never a common bird in Minnesota and in recent years has become very casual in the state. It has disappeared from most of its former range in southeastern Minnesota. The species occurs in southeastern South Dakota and northwestern Iowa and should be looked for in the southwest corner of Minnesota.

BOOK REVIEWS

Birds of Australia by Michael Morcombe, 62 pages of color photographs by the author, 80 pp. Charles Scribner's Sons, 597 Fifth Avenue, New York, New York 10017. 1974. \$7.95.

Australia has always been a fascinating far-away place that I wanted to visit someday, but, with little hope of doing so. This book rekindles my desire to find some way to get there.

From the quality of the color photographs, the author must be classed with the top bird photographers. The emphasis is on action photography—birds in flight, landing, feeding young, and nest building.

The 80 pages of the book are divided into sections describing birds of various regions of the country and sections on several families of Australian birds.

The last section of the book divides Australia into five regions and then lists the names of birds found in the region and habitat type where the birds are found. The confusing point here is how complete these lists are, are they just the more common birds or a total list — this is not explained.

If you have any plans of visiting Australia, you should look at this book before you go, at \$7.95 it is not a bad bargain when one considers the quality and quantity of color contained in the book.

Bob Janssen

Ducks, Geese and Swans by Oscar J. Merne, color illustrations, 160 pp. St. Martin's Press Inc., 175 Fifth Avenue, New York, N.Y. 10010. 1974.

I like this kind of book — a compact field guide size book with all of the species of ducks, (there are 151 of them) of the world illustrated in color and range's described.

The color illustrations by Helen Haywood are not of outstanding quality, but, in how many books can you find pictures of Torrent Ducks, including all the races, sandwiched between the Northern Shoveler and eiders. Really the illustrations aren't that bad, but, are not up to the quality of many recent bird books. It must be remembered that at a price of \$6.95 this is a real bargain to get 151 illustrated species of waterfowl. The only other complaint I would have is that the binding in my copy was not too good and the paper was too stiff.

In the forward the author states that "in dealing with the different species the conventional systematic order has been strictly adhered to, however, the Pintail and Green-winged Teal are discussed before the Mallard and Black Duck. This does not appear to be "conventional" order. As the author explains the book has two purposes, "the first is to describe the appearance and lives of the world's ducks, geese, and swans. The second, is to touch briefly on the activities of man in so far as they affect these birds —."

Go out and get yourself a copy of this book, you can spend many enjoyable hours looking and studying pictures of Magpie Goose, Red-crested Pochard, Australian Shelduck, Comb Duck, etc., plus all the familiar species.

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** need articles, shorter 'Notes of Interest' and black/white photos. Photos should be preferably 5x7 in size. Manuscripts should be typewritten, double-spaced and on one side of the 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 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, August and November to Mrs. Janet Green. See inside front cover.



TABLE OF CONTENTS

PEREGRINE FALCON — FELTON, CLAY CO. — 9-28-74
 Photo by William H. Wyatt Front Cover

THE PRESIDENT WRITES 3

EDITORIAL 4

THE BIOLOGY OF BALD EAGLES IN MINNESOTA
 by Thomas C. Dunstan, John E. Mathisen and James F. Harper 5

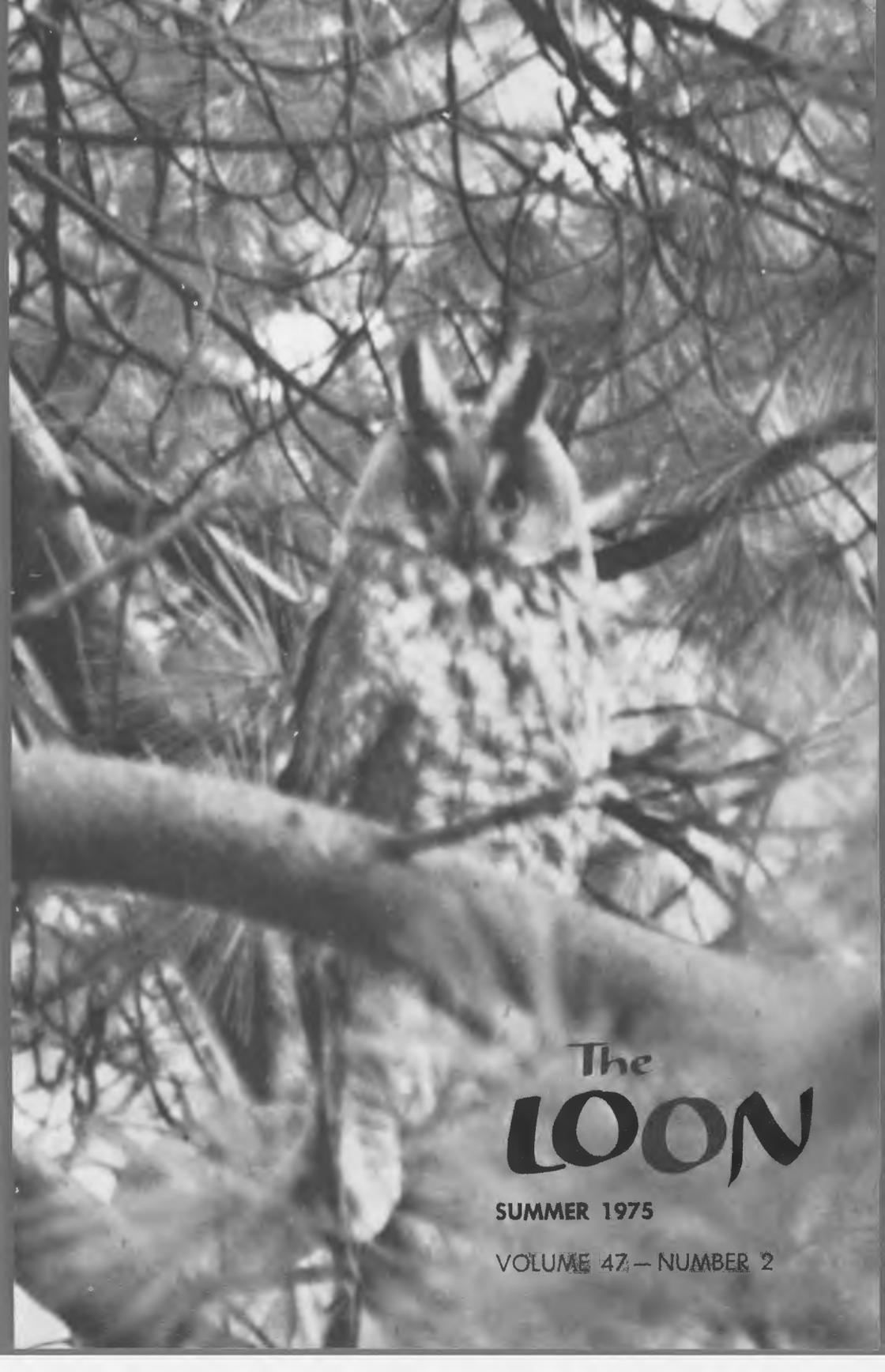
RARE SEA DUCKS AT GRAND MARAIS
 by Janet C. Green 11

POSSIBLE SAY'S PHOEBE NESTING AT BLUE MOUNDS STATE PARK
 by Kim R. Eckert 13

MORE BIRD KILLS AT KROC-TV TOWER, OSTRANDER, MINNESOTA
 by Forest V. Strnad 16

SCOTT'S ORIOLE BANDED IN DULUTH
 by Koni Sundquist 22

THE SUMMER SEASON (June 1 - July 31, 1974)
 by Kim R. Eckert 25



The
LOON

SUMMER 1975

VOLUME 47 — NUMBER 2

The LOON Minnesota's magazine of birds and nature, is published four times each year by the **Minnesota Ornithologists' Union**, the state-wide bird club. Permanent address: J. F. Bell Museum of Natural History, University of Minnesota, Minneapolis 55455. Anyone interested in birds and nature 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: Karol Gresser, 8850 Goodrich Ave., Bloomington, Minnesota 55437. To join the MOU and receive both MOU publications, send Mrs. Gresser \$5 for a regular yearly subscription. Or other classes of membership that you may choose are: Family \$6 yearly; Sustaining \$25 yearly. Life \$100. Also available from Mrs. Gresser: back issues of **The Loon** (\$1.50 each ppd.) and MOU checklists of Minnesota birds (minimum lots of 20 for \$1.50 postage paid). Gifts, bequests, and contributions to the MOU Endowment Fund should also be sent to Mrs. Gresser.

EDITOR OF THE LOON: Robert B. Janssen, 14321 Prince Place, Hopkins, Mn. 55343. (phone 938-7464). The editor solicits articles, short notes, and black/white illustrations about birds and nature. See back cover for details.

"The Season" section of **The Loon** publishes reports of bird sightings throughout Minnesota. We particularly desire 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," Mrs. Janet Green, 9773 North Shore Drive, Duluth, Mn. 55804.** (area 218, phone 525-5654).

EDITOR OF THE MOU NEWSLETTER: Mrs. Marlyn Mauritz, Route 4, Box 886, Excelsior, Minn. 55331. Publishes announcements and reports about activities of the MOU and its affiliated clubs. (Club officers should keep both MOU editors informed.)

MOU OFFICERS

PRESIDENT: Jack Mauritz, 6810 Tecumseh Lane, Excelsior, Minn. 55331

FIRST VICE PRESIDENT: Henry Kyllingstad, 205 6th St. S., Marshall, Minn. 56258

SECOND VICE PRESIDENT: Wally Jiracek, 5814 Portland Ave. S., Minneapolis, Minn. 55417

SECRETARY: Jo Blanich, Box 96, Crosby, Minn. 56441

TREASURER: Karol Gresser, 8850 Goodrich Ave., Bloomington, Minn. 55437 (phone 612-831-5714).

MOU COMMITTEE CHAIRMEN

RESEARCH AND RECORDS: Mrs. Janet C. Green, 9773 North Shore Drive, Duluth, 55804. **FIELD TRIPS:** John Telfer, 5717 Hcwkes Drive, Minneapolis 55436. **MEMBERSHIPS:** Mrs. George Stanley, 213 Janalyn Circle, Minneapolis 55416. **NOMINATIONS:** Marvin Borell, 5808 Portland Ave., Minneapolis 55417. **UNIVERSITY COORDINATION:** Dr. Harrison Tardoff, Bell Museum of Natural History, Univ. of Minnesota, Minneapolis 55455. **NATIONAL AUDUBON COORDINATION:** Ed Bringham, Rt. 4, Red Wing 55066. **PUBLICITY:** Kathy Heidel, Rt. 5, Box 108, Excelsior 55331. **THOMAS S. ROBERTS AWARD:** Oscar Johnson, 7733 Florida Circle, Minneapolis 55428. **FINANCE AND ENDOWMENT:** Mrs. Mary Wyatt, 205 Oak Manor Ct., Fargo, North Dakota 58102. **HOT LINE:** Roy Zook, 5520 Warwick Place, Minneapolis 55436. **SLIDE FILE LIBRARY:** Wally Jiracek, 5814 Portland Ave., Minneapolis 55417. **HISTORIAN:** Mrs. Betty Campbell, 4917 Russell Ave. S., Minneapolis, 55410.

AFFILIATED CLUBS OF THE

MINNESOTA ORNITHOLOGISTS UNION

AGASSIZ AUDUBON SOCIETY

President: Mr. Gladwin Lynne, 404 East Prairie Ave Warren, Minn. 56716

ALBERT LEA AUDUBON SOCIETY:

President: Mr. Donald Chryst, 2012 Capitol Lane, Albert Lea, Minn. 56007

AUDUBON CHAPTER OF MINNEAPOLIS

President: Mr. Harvey Djerf, 217A Trenton Lane N., Minneapolis, Minn. 55427

AUDUBON SOCIETY OF FARGO-MOORHEAD

President: Mr. William Wyatt, 205 Oak Manor Ct., Fargo, No. Dak. 58102

AUSTIN AUDUBON SOCIETY

President: Jerry Darsie, Box 8, Austin, Minn. 55912

AVIFAUNAL CLUB

President: Mr. Harding Huber, 2109 Squire Lane New Brighton, Minn. 55112

COTTONWOOD COUNTY BIRD CLUB

President: Lester Rupp, Mountain Lake, Minn. 56159

DULUTH AUDUBON SOCIETY

President: Mrs. Janet C. Green, 9773 N. Shore Dr. Duluth, Minn. 55804

ECOWAY AUDUBON OF PINE RIVER

President: Terry McGaughy, Route 1, Pine River, Minn. 56474

GRINDSTONE LAKE AUDUBON SOCIETY

President: Ted Lundberg Hinckley, Minn. 55037

HIAWATHA VALLEY BIRD CLUB

President: Karl Lipsohn Stockton, Minn. 55988

MINNEAPOLIS AUDUBON SOCIETY

President: Mrs. Ross Garrett, 6600 Southcrest Dr., Minneapolis, Minn. 55435

MINNESOTA BIRD CLUB

President: Mr. Manley Olson, 1974 W. Summer St. St. Paul, Minn. 55113

MINNESOTA RIVER VALLEY AUDUBON CLUB

President: Mrs. John Eliason, 8851 River Ridge Rd., Bloomington, Minn. 55429

MISSISSIPPI HEADWATERS AUDUBON SOCIETY

President: John Mathisen, 1001 Miles St., Bemidji, Minn. 56601

ST. PAUL AUDUBON SOCIETY

President: Mrs. Isabel Goldberg 1915 Palace Ave. St. Paul, Minn. 55105

ZUMBRO VALLEY NATURE CLUB

President: Ervin Schmidt, 3920 Kahoun Ct. S. E. Rochester, Minn. 55901

THE PRESIDENT WRITES . . .

I was paging through National Wildlife Federation's "Conservation News." Within it, an article by Chuck Griffith, of the Federation, discussed a new project of the Corps of Engineers. Most of you are probably aware that a new national wildlife refuge in South Dakota, the Karl Mundt Refuge, has been created to provide a safe wintering area for Bald Eagles in the Upper Midwest. Guess what the Corps of Engineers is proposing for the area? You guessed it! A "small dam," 13 miles downstream from the Fort Randall Dam which, as it turns out, would also be downstream from the new eagle refuge on the west bank of the Missouri River. It also turns out that this small dam will create water level changes of from 4 to 4½ feet between the small dam and the major power-generating facility upstream. The raised water levels will almost surely flood the cottonwood stands along that pool, thereby eliminating the roosting site. The refuge will still be there, but it will be under water and without trees. Not much use to the eagles, is it?

I think the real 'kicker' in this particular project is the fact that the Corps of Engineers currently plans to go ahead without filing an Environmental Impact Statement on the project. They believe they have a congressional mandate for new hydroelectric power sources that permits the Corps to go around the environmental impact process. It would appear that the major benefit of this project is the group of people on the salary rolls of Corps of Engineers. They will be kept busy. I guess I have to wonder whether the time that we, as interested citizens, are undoubtedly going to spend opposing this project should not be subtracted from the benefit side of the cost benefit that the Corps of Engineers will undoubtedly develop for this project. I must also say that I find it very hard to believe that an agency which considers such a project as a realistic and feasible activity for itself should seriously be considered as the backbone for a new federal water watchdog agency. Yet, if you have been watching the newspapers, that is just exactly what is being advanced.

Who watches the watchdog on questions of water development policy? Especially when the watchdog agency is obviously incapable of separating environmental reality from super-development fantasy?

Jack Mauritz

FALL OWL MIGRATION AT DULUTH, MINNESOTA

by David L. Evans

The magnitude of the fall hawk migration at Duluth, Minnesota is well known and has previously been reported (Hofslund, 1966). In the fall of 1972 a raptor banding program was established on the Hawk Ridge Nature Reserve. In conjunction with this program an effort was undertaken in the fall of 1973 to ascertain the extent of owl migration.

Two mist nets, 2.6m by 12.0m with 61mm mesh size were erected in strategic locations along the supposed migration pathway on September 15, 1973. Two additional nets, one with

106mm mesh size, were in place by September 25. In 1974, a total of ten 61mm nets and two 106mm nets were used with all but two 61mm nets in place by September 25. The two additional nets were up on October 9. The nets were checked two or more times, depending on weather conditions and extent of migration, from sunset until approximately 11:00 P.M. and again shortly after sunrise. Netting was terminated on November 14 in 1973 and November 29 in 1974. Inclement weather conditions necessitated furling the nets on 6 and 20 nights in 1973 and 1974 respectively.



Saw-whet Owl at Hawk Ridge, Duluth, 10-21-74. Photo by Marj Carr.

A total of 59 individuals of three species of owls was caught in 1973. 40 of the birds (67.8%) were Saw-whet Owls (*Aegolius acadicus*), 17 (28.8%) were Long-eared Owls (*Asio otus*), and 2 (3.4%) were Short-eared Owls (*Asio flammeus*) (Table 1). In 1974, 290 (80.8%) Saw-whets and 69 (19.2%) Long-eareds were caught for a total of

359 owls (Table 1).

The owls were separated into immature and adult age classes on the evidence of simultaneous or non-simultaneous molt of remiges (Mueller and Berger, 1967). Several individuals showing indistinct differences in feather appearance were of questionable status and were designated as age unknown.

Table 1. Owls netted in 1973 and 1974.

1973	Saw-whet				Long-eared			Short-eared	
	Im	Ad	U	Total	Im	Ad	U	Total	U
09/20-09/30	1	—	1	2	3	—	1	4	1
10/01-10/09	3	5	—	8	2	—	—	2	—
10/10-10/19	4	13	—	17	1	—	1	2	—
10/20-10/31	4	6	2	12	2	4	1	7	—
11/01-11/14	1	—	—	1	2	—	—	2	—
Total	13	24	3	40	10	4	3	17	2
1974									
09/14-09/30	3	4	—	7	10	—	—	10	—
10/01-10/09	55	54	—	109	9	—	—	9	—
10/10-10/19	48	50	—	98	16	—	—	16	—
10/20-10/31	13	17	—	30	4	1	—	5	—
11/01-11/09	17	23	1	41	8	8	—	16	—
11/10-11/29	4	1	—	5	5	8	—	13	—
Total	140	149	1	290	52	17	—	69	—

Table 2. Saw-whet Owls netted in similarly placed nets in 1973 and 1974.

	Net A	Net B	Net C	Total
1973	14	10	7	31
1974	22	11	15	48
Total	36	21	22	79

It is interesting to note that the adult Saw-whet Owls peaked over a shorter time period in 1973 than did the immatures (Table 1). The sample size (40) was insufficient to draw any conclusions concerning the significance of this peak. In 1974, with a much larger sample size (290) there was no significant difference in the timing of migration between adult and immature Saw-whets (Table 1, 1974). Although the migration of owls appeared to be much larger in 1974, a comparison of Saw-whet captures in the three nets of similar placement

and mesh size showed no significant difference between the magnitude of migration in 1973 and 1974 (Table 2).

As with hawks, the migration of owls at Duluth appears to be of considerable extent. Calculated index values of 5.82 and 14.05 Saw-whet Owls per 1000 m² of net per night in 1973 and 1974 respectively were substantially higher than the mean index of 2.16 (range 1.14 - 2.79) Saw-whet Owls netted from 1962 through 1964 at the Cedar Grove Ornithological Station (Mueller and Berger, 1967).

I wish to thank the Hawk Ridge Na-

ture Reserve for granting permission to band on Hawk Ridge and Mary Jane Kohlbry and Robert Rosenfield for assisting in the collection of data. Dr. James Grier offered advice and encouragement throughout the preparation of the manuscript.

LITERATURE CITED

Hofslund, P. B., 1966. Hawk migration over the western tip of Lake Superior. *Wilson Bulletin* 78: 79-84.

Mueller, H. C. and D. D. Berger, 1967. Observations on migrating Saw-whet Owls. *Bird Banding* 38: 120-125.

Roberts, T. S., 1936. The birds of Minnesota. Vol. 1. Univ. of Minn. Press, Minneapolis. xxvi + 717pp. + 49pl.

Department of Zoology,
North Dakota State University,
Fargo, North Dakota 58102.

FOOD HABITS OF TWO LONG-EARED OWL FAMILIES IN EAST-CENTRAL MINNESOTA

by Glenn Christenson and
Mark R. Fuller

The Long-eared Owl (*Asio otus*) is widely distributed in North America, but as Nicholls (1962) described, these owls are quite nocturnal, spending the day well hidden in dense cover. For this reason the Long-eared Owl is seldom seen, but may be common in areas where its presence is not suspected. The woodlots sought by the owls for cover and nesting habitat are usually adjacent to fields and pastures where the owls hunt during the night (Getz, 1961). Studies of the Long-eared Owls' food habits in Michigan (Wilson, 1938; Warthin and Van Tyne, 1922; Spiker, 1933; Armstrong, 1958; Craighead & Craighead, p. 408, 1969), Wisconsin (Errington, 1932b; Nicholls, 1962), in east-central Illinois (Cahn and Kemp, 1930) and Missouri (Korschgen and Stuart, 1972) have shown that 80-90% of the diet consists of small mammal species which are often agricultural pests. The economic importance of these owls is stressed because of the beneficial effects of their predation on rodents, while only a very small percentage of their prey con-

sists of game animals and birds. The purpose of this study was to analyze pellet contents and evaluate the relative economic importance of feeding habits of Long-eared Owls during the late spring and early summer in east-central Minnesota.

Methods

To obtain qualitative data and a quantitative estimate of their diet, pellets (containing undigested portions of prey items) were collected from around the nests of two pairs of Long-eared Owls in Washington County, on June 8, 1973. The nests were about five miles apart. These nests were located in Scotch pine plantings of 2-3 acres that were bordered by cultivated fields and pastures. The nests were constructed of pine twigs, about 18 inches in diameter and located 20 to 25 feet from the ground. Most pellets were found below the nest tree, however, a few were collected from the nest structure.

Errington (1930, 1932a) has discussed in detail, the techniques of pellet analysis. Generally, we dried the

pellets at 100°C for 24 hours, then weighed and measured whole pellets. Broken pellets and loose material were not included in weight and measurement analyses, but all pellets and pieces were individually soaked in water and teased apart with forceps. This allowed the bones to be separated from the rest of the pellet which was subsequently inspected for feathers, insect remains or other prey. Bones and dentition were examined and used for identification. Though these methods may not reveal everything an owl has eaten (Raczynski and Ruprecht, 1974; Errington, 1930) they do provide a good basis for determining what the owls' diet consists of. Errington (1930, 1932a), and others found that the digestive process of owls leaves most bone material undigested and he concluded that the Long-eared Owls produced the most perfect pellet for food habit analyses. Duke et al. (in press) have found that as much as 10 times the amount of bone may be found in an owl pellet, compared to a hawk pellet produced from the same diet.

The pellets gathered from nest site one were produced by two adults and three nestlings that were within a week of fledging, or about four weeks old. Nest-site-two pellets were produced by two adults and six fledglings that were about six weeks of age when the pellets were collected.

Results

Twenty-seven pellets were collected from nest site one and thirty-two were collected from nest site two. The average size of twenty whole pellets was 4.7 cm (range 2.4 - 6.6cm) in length and 2.2 cm in width (1.8 - 3.1 cm) and the average weight was 2.5 grams (.7 - 6.5 gm). The average number of prey items per whole pellet was 1.7 (range 1 - 3).

Prey remains most useful for identification were teeth, mandibles and premaxillary - maxillary complexes which were most often found whole.

Pellet remains were divided into six prey categories. The number of prey items in each category from each nest are listed in Table 1. Meadow voles made up the majority of these owls' diet. Three small mammals comprised 95.6% of the total number of individuals preyed upon with 91.2% of these considered potentially injurious to seed crops. Only three (3.3%) of 59 pellets contained bird remains, while insect remains were identified in only one pellet (1.1%).

Conclusions

The collection of pellets from two Long-eared Owl nesting sites allowed us to analyze these pellets and compare results from other food-habit studies of this species in the mid-west. Like Wilson (1938), we discovered that

Table 1. Food Items Found in Pellets of Long eared Owls in Washington, Co., Minnesota, 1973

	No. prey items found in pellets from			
	Nest 1	Nest 2	Total	% of Sample
Meadow Voles (<i>Microtus</i> sp.)	36	38	74	81.3
Deer Mice (<i>Peromyscus</i> sp.)	4	3	7	7.7
Harvest Mice (<i>Reithrodontomys</i> sp.)	2	—	2	2.2
Shrew (<i>Blarina</i> sp.)	3	1	4	4.4
Unidentified Birds	1	2	3	3.3
Unidentified Insect	—	1	1	1.1
Total	46	45	91	100.0

most pellets are broken. However, a sample of 20 whole pellets revealed that the average dimensions of our pellets were slightly smaller than either Armstrong's (1958) or Wilson's (1938), and that they weighed slightly less than Armstrong's sample (1958). We found an average of 1.7 prey items/pellet which was equal to Wilson's average and within the averages of Armstrong's (1958) 1.57 and Nicholls' (1962) 1.8.

In their analysis of Long-eared Owl pellets Cahn and Kemp (1930) seldom found the skull intact. In Armstrong's (1958) sample, the mandibles and crania were usually intact. We found the mandibles and premaxillary-maxillary complex frequently intact, but the teeth were not always in their sockets and the crania were usually fragmented. Careful analysis of these items and other prey remains permitted a qualitative analysis of the Long-eared Owls' food habits.

The late spring-early summer food consisted of 95.6% small mammals. We found no evidence of predation on game or domestic animals, and only three instances (3.3%) of bird remains in our pellet samples. This was the case despite the fact that the samples were taken during the season when fledgling birds were numerous and available as a food source. Though the nocturnal hunting habits of the Long-eared Owl (Nicholls, 1962; Armstrong, 1958) would reduce the encounters these owls have with vulnerable fledglings, young birds did show up in the diets of Long-eared Owls elsewhere. In Missouri during the late-winter early-spring Korschegen and Stuart (1972) found 7.2% birds in the diet and Errington (1932b) found 12.4% in Wisconsin in the early summer. Our data did not approach these percentages, thus suggesting that birds are not an important component of the Long-eared Owls' diet at any time of the year. Rather, small crepuscular and nocturnal mammals, such as *Microtus* sp. *Peromyscus* sp. and *Blarina* sp., are most heavily preyed upon.

As found for other areas of the mid-

west, it appears that the Long-eared Owl is an asset to the farming community of east central Minnesota because the majority of its prey consists of small rodent pests. These owls should not be persecuted, but rather should be encouraged to nest through the maintenance of pine plantings in agricultural areas.

We wish to thank Bob Anderson for field assistance, the Cedar Creek Natural History Area for providing laboratory facilities, and Rick Lampe and Larry Hailey for assistance with mammal identification. Tom Nicholls provided valuable remarks on the manuscript. We acknowledge financial support from National Institutes of Health Grant No. 5 TO1 GMO1779 and U.S. Atomic Energy Commission (COO-1332-111) to J.R. Tester.

LITERATURE CITED

- Armstrong, W. H. 1958. Nesting and food habits of the Long-eared Owl in Michigan. Publ. of the Museum, Michigan State Univ. Biological Series, 1(2):63-96.
- Cahn, A. R. and J. T. Kemp. 1930. On the food of certain owls in east-central Illinois. *Auk* 47:323-328.
- Craighead, J. J. and F. C. Craighead Jr. 1969. *Hawks, Owls and Wildlife*. Dover Publications, Inc. New York. 443pp.
- Duke, G. E., A. A. Jegers, G. Loff and O. A. Evanson (in press). Gastric digestion in some raptors. *Comp. Biochem. and Physiol.*
- Errington, P. 1930. The pellet analysis method of raptor food habits study. *Condor* 32:292-296.
- . 1932a. Technique of raptor food habits study. *Condor* 34:75-86.
- . 1932b. Food habits of southern Wisconsin raptors. *Condor* 34:176-186.
- Getz, L. L. 1961. Hunting areas of the Long-eared Owl. *The Wilson Bulletin*. 73:79-82.

Korschegen, L. J. and H. B. Stuart. 1972. Twenty years of avian predator small mammal relationships in Missouri. *J. Wildl. Manage.* 36(2): 269-282.

Nicholls, T. H. 1962. Food habits of the Long-eared Owl. *The Passenger Pigeon.* 24:130-133.

Spiker, C. J. 1933. Analysis of two-hundred Long-eared Owl pellets. *The Wilson Bulletin.* 45:198.

Raczynski, J. and A. L. Ruprecht. 1974.

The effect of digestion on the osteological composition of owl pellets. *Acta Ornithologica.* 14(2):25-38.

Warthin, A. S. Jr. and J. Van Tyne. 1922. The food of Long-eared Owls. *Auk* 39:417.

Wilson, K. A. 1938. Owl studies at Ann Arbor, Michigan. *The Wilson Bulletin.* 55:187-197.

**Department of Ecology and Behavioral Biology,
University of Minnesota,
St. Paul, Minnesota 55101.**

NESTING OF SWAINSON'S HAWKS IN SOUTH-EASTERN MINNESOTA

by **Dean G. Schneider and
Ronald D. Kneeskern**

The Swainson's Hawk (*Buteo swainsoni*) is a common bird of the great prairies of central North America. Kuchler (1964) states that in Minnesota, the eastern limit of the prairie originally extended from the state's north-west corner down to Mankato, then continued angling south-east to the Iowa border. Iowa was nearly all prairie. A peninsula of prairie forged north through Mower, Dodge, and Scott Counties in Minnesota to Minneapolis-St. Paul. This peninsula was drained by the Cedar River, which flows south into Iowa and becomes a large stream before it enters the Mississippi. A few gallery forests still exist along the Cedar yet today.

Since T. S. Roberts' day, the Swainson's Hawk has been common in the western third of Minnesota, but he felt they were uncommon, even in migration, in south-east Minnesota (Roberts, 1932). They appear in our state in April, and leave in late September or early October for their wintering grounds in Argentina.

At a distance, Swainson's Hawks may easily be mistaken for the more common Red-tailed Hawk, and in Dr. Roberts' day, when experienced observers were far fewer than now, it may be that most Swainson's Hawks, if they were in south-east Minnesota, were missed. Carlander (1943) published the first observation of a Swainson's Hawk in eastern Minnesota (near Sturgeon Lake, which is 30 miles south-east of Duluth) in the post-Roberts era.

With the beginning of seasonal reports in the Flicker in 1964, occasional observations of Swainson's Hawks began to be published for south-east Minnesota. For 1965-73, 26 observations of Swainson's Hawks in south-east Minnesota appear in the Flicker/Loon. Fifteen of these were in the May through early September period, and may represent breeding birds.

Strnad (1960) was the first to publish an account of nesting birds in south-east Minnesota (Dodge County). However, Janssen (1959) stated that

Mr. William Longely, then with the Minnesota Department of Natural Resources, informed him that he had seen "a pair or two" every summer through the 1950's in the central part of Dodge County.

In 1974, we discovered two active Swainson's Hawk nests on the outskirts of Austin (located in Mower County). The nests are in gallery woods along the Cedar River where it flows through Austin.

By 1920, all of Mower County's original prairie had been converted into essentially a vast plain of agricultural crops, chiefly corn and wheat. This "agricultural desert" was interrupted only by farm woodlots, roads, small cities and towns, numerous ponds (that had been "prairie potholes"), and thin lines of trees along watercourses. By 1940 nearly every pond in Mower County had been drained and was farmed. At present, agriculture is even more intensive, and the few remaining ponds are being drained. Before intensive agriculture, Swainson's Hawks may have nested in the prairie, but this is pure conjecture on our part. If Roberts was correct, they had disappeared from the prairie part of south-east Minnesota by 1900. However, it may be that, despite agricultural disturbance, there has always been a chiefly unobserved very low population of Swainson's Hawks remaining in south-east Minnesota, as indicated by the Dodge and Mower County nests, and Mr. Longely's observations.

A third hypothesis may be stated as follows: Perhaps population pressure causes a steady northward trickle of reproductively-oriented Swainson's Hawks up the Cedar River from Iowa. Then the Austin nests are in the first large timber that the hawks would encounter in Minnesota which would be suitable for nesting. In the spring of 1975, Kneeskern will search for other Swainson's Hawks nests along the Cedar River in Minnesota.

One of our study nests, in a woodlot owned by Arthur Peck, is on the south edge of Austin. We have designated it

the "Peck" nest. The second nest is on the north edge of Austin, and is called the Weyerhauser nest.

The Peck family have seen as many as four hawks at one time around their farm on several summers preceding 1974. They believe that a pair of hawks has nested here regularly during this period, but they did not note the species, nor did they know of the existence of the "Peck" nest. Fortunately, this nest is unlikely to be disturbed because Mr. Peck has been very effective in recent years in eliminating trespassers. The Weyerhauser nest is in floodplain forest dense enough to discourage its penetration by nearly anyone. An occasional squirrel hunter may have discovered the nest if it existed before 1974, but this would be after the hawks had left for Argentina.

The only other large wooded areas in Mower County are "Six Mile Grove" and the Lena Larson Game Refuge a few miles south-east of Austin. Other hawk nests, probably made by Red-tails, are scattered through the county in trees along watercourses. If possible, they will be checked for Swainson's Hawks during the spring of 1975.

METHODS

We visited the nests on 25 days over the 116-day study period of April 13 to August 10, 1974. The most intense period of observation was from June 9 to July 18, when we visited the nests on 15 days. The Peck nest was most closely studied; we visited the Weyerhauser nest only six times.

Our observation points were within 30 meters of the nests and we were in full view of the birds while observing them. Out of fear of disturbing the adults, we did not remain for over 20 minutes at a time, and did not visit a nest more than once a day. Our main objective was to determine beginning and end of the incubation period, and the fledging date.

We felt that the amount of observation time necessary to make significant observations of behavior might have caused the birds to abandon the nests. Initially, the hawks seemed only

a little disturbed by our presence, and the Peck nesters seemed shortly to become accustomed to us. Bent (1931) states that this species is quite tame, as our birds seemed to be. On about half of the visits, we went to the area around the base of the nest tree for a few minutes to search for remains of prey items.

RESULTS AND DISCUSSION

Both nests were in one of the tallest trees in the area, and were about 10-15 meters high. Both were in riverine forest typical of this part of Minnesota. About a meter in diameter, the nests were irregularly shaped masses of sticks and branches.

Spring Migration. The first 1974 visit to the Peck nest was on April 13. At this time, Schneider saw three *buteos* that were either Red-tailed or Swainson's Hawks. They circled the nest several times before leaving the area. It may be that they were the hawks that had nested here on previous summers and were observed by the Peck family. On April 15 Kneeskern saw a Swainson's Hawk carrying a stick to the Weyerhauser nest, presumably to add it to the structure.

A major migration of Red-tailed and Sharp-shinned Hawks had passed through the Austin area on April 4, but the main migration of Red-tails and American Kestrels was over by April 9. On April 20, while on a thirty-minute drive about the Austin area, Schneider saw several Swainson's Hawks. From these observations, it would appear that Swainson's Hawks migrate somewhat later in this area than the more common Red-tails, Kestrels, and Sharp-shins. Bent (1937) cites late March and early April dates for Minnesota. Roberts (1932) gives early to late April dates for western Minnesota. Migration notes in the Flicker/Loon for 1965-73 give dates of April 10, 20, 21, and 25, in the counties of Dakota, Washington, and Goodhue.

Incubation. No more observations were made of either of the Austin nests until May 5 when one "incubat-

ing" Swainson Hawk was observed on the Weyerhauser nest. Olendorf and Stoddart (1973) report that Swainson's Hawks may spend many hours sitting on the nest prior to egg-laying, so eggs may not yet have been laid in this nest. The next observation was on June 9 when an incubating Swainson's Hawk was seen on the Peck nest.

Aiken (1941) states that in Colorado Springs only three nests of eight or ten had eggs in them by May 14. Roberts (1932) gives dates of eggs in nests in western Minnesota on May 12, 23, 26, and June 11 and 19. Bent (1937) states that in North Dakota and southwest Saskatchewan, most eggs were laid in the first half of June. Bent (1937) also cites a study in San Diego, California where eggs were found as early as April 15 for these southern birds.

Bent (1937) gives the incubation period as 28 days. Worth (1940) indicates an average of 26.5 days. Since the chicks in the Peck nest hatched between June 13 and 16, this would mean incubation began May 16-21. These data indicate that in south-east Minnesota incubation begins in the middle third of May, as would be expected from data cited above from the literature.

It appears then, that incubation of Swainson's Hawks does not begin until spring is well advanced. In Austin, deciduous trees are beginning to leaf out by May 5, and leafing-out is completed by May 15-20. In North Dakota and Saskatchewan, deciduous trees should be well-leaved out by mid-June. Olendorf and Stoddart (1973) state that Swainson's Hawks usually begin to nest after trees are leafed out.

Hatching. Prentice (1949) gives a hatching date for a Rockford, Illinois nest as June 6. In Bent's (1937) studies, the North Dakota and Saskatchewan chicks hatched on June 25. These are the only hatching dates that we were able to find in the literature. As indicated above, our Peck nestlings hatched between June 13 and 16.

On July 21, at age 5-8 days, the

Peck nest chicks had wing primaries two cm. long. The birds studied by Prentice (1949) did not have pin feathers until they were 14 days old, but he had removed them from the nest and this disturbance may have retarded their development.

By the end of incubation of the Austin nests, very little "whitewash" had accumulated on plants under the nests, and no parts of prey were found under the abundant vegetation of the forest floor. We do not feel it would be wise to rely on these signs as absolute indication of an active nest. Also, adults normally left the nest without a sound and would probably not be detected unless they were under observation for a few seconds before they left.

Fledging. The Prentice (1949) birds fledged on July 20. Our Peck nest birds were fully feathered and perching on limbs in the nest tree by July 14. By July 18 they had learned to fly. The Weyerhauser juveniles were flying by July 29, but could have fledged much earlier. This would mean that the Peck nest birds fledged 28-36 days after hatching, while the birds studied by Prentice required 45 days to fledge. Brown and Amadon (1968) report that Swainson's Hawks fledge at 30 days.

On July 21, Schneider found two birds on the Weyerhauser nest, which then flew away. Five minutes later a bird made a clumsy landing on the nest (perhaps it was a juvenile), remained five minutes, and left. While it was there, another flew by. The next day, Schneider saw a bird perched near the Peck nest, and on August 10, the Peck family said that they had seen up to four hawks at once in the area. It may be that the two families were continuing to use their nests as "staging areas." When the adults captured prey out of sight of the juveniles, the nest would serve as a convenient feeding station, if the parents merely left the prey at the nest where it could easily be found by the offspring.

We did not visit the nests again, but we saw Swainson's Hawks often on the

outskirts of Austin and flying over the city. They were not seen after September 18, however, and it is likely that they left on their Autumn migration soon after this date. No large fall migration through the Austin area was observed in 1974. Bent (1937) gives late departure dates for North America from late September in southern Canada to middle October for Nebraska and Kansas. Roberts (1932) gives late dates of September 2 and 30 for Minnesota. Autumn observations in the Flicker/Loon for 1965-73 are October 2, 6, and 26 in the counties of Dakota, Washington, and Goodhue. Bent (1931) states that the main migration through Central America to the Argentine wintering grounds is in October.

CONCLUSIONS

A tentative calendar of Swainson's Hawks activities for south-east Minnesota. The following calendar of Swainson's Hawks activities is offered as an aid for future studies. The dates are based on far too little data, but they may give future workers an idea of when to expect given events. We hope this paper may also stimulate future studies.

The first **spring migrants** may be expected to arrive in south-east Minnesota in April, somewhat later than the migration of Red-tailed Hawks and American Kestrels. At this time, old hawk nests should be monitored to determine if Swainson's Hawks (which may have used the nest the previous year), are frequenting the area, and possibly adding new sticks to the nest. Before the eggs are laid, adults may spend many hours sitting on the nest as though incubating.

Incubation may begin as early as the first week of May or as late as May 20th. This is during the leaf-out of deciduous trees and will be later than the beginning of incubation by Red-tails. Very little "whitewash" accumulates on vegetation under the nest tree during incubation, so this is not a good clue to use in discovering active nests.

Hatching occurs 26-30 days after incu-

bation begins, or in the middle third of June.

Fully feathered juveniles perch on limbs in the nest tree a few days prior to **fledging**, which occurs in mid-July. The family may continue to use the nest as a feeding station for some time after this.

In late September or early October the resident birds leave on their **autumn migration**.

Minnesota Range. Prior to 1932, Roberts (1932) felt that Swainson's Hawks were unusual even during migration in south-east Minnesota. But it now appears that this species is found throughout the former prairie areas of Minnesota. It is still probably uncommon in south-east Minnesota, however, and studies of nesting birds in this area are badly needed.

We feel that amateur birders, when in south-east Minnesota, have a tendency to mistake Swainson's Hawks for Red-tails. The two species are similar in appearance and size at the distances most hawks are observed, and since one is not expecting to see a Swainson's Hawk this far east in Minnesota, it may be recorded as a Red-tail. Such errors are even more likely in summer when no Rough-legged Hawks are expected. During spring, summer, and autumn in south-east Minnesota, all large *buteos* should be carefully checked first for a red or plain dorsal tail surface, and second, for the presence of a dark chest. The lack of a red tail and presence of dark chest are not easy to establish at long distances, and often, particularly on overcast days, a large *buteo* must be studied for several circles as it soars in the sky (a not unpleasant task). In addition, juvenile Red-tails and Swainson's Hawks are virtually identical except when seen at close range. Occasional melanistic *buteos* add further difficulties to identification problems. Nevertheless, careful observation should permit firm identifications in enough instances to interest serious birders.

Addendum:

After submitting this ms to Mr. Janssen, he mailed me an advance copy of the article entitled, "Possible nesting of Swainson's Hawks in Steele County," that appeared in "The Loon" (46:172). The Pichners do appear to have located an active 1974 nest near Owatonna, about 30 miles NNW of the Austin nests, and about 10 miles East of the old Dodge County nest near Claremont. This appears to add more data in support of our theory of northward movement up the prairie peninsula drained by the Cedar River.

LITERATURE CITED

- Aiken, C. E. H. 1941. From Colorado to Horse Creek in 1878. *Auk* 58:71.
- Bent, A. C. 1937. Life histories of North American Birds of Prey. Part I. Dover Publ., N.Y. 409 pp.
- Brown, Leslie, and Dean Amadon. 1968. Eagles, Hawks, and Falcons of the World. Vol. I. McGraw-Hill Company, N.Y. 414 pp.
- Carlander, K. D. 1943. A Swainson's Hawk near Sturgeon Lake, Minnesota. *Flicker* 15(4):56 (December).
- Janssen, R. B. 1959. Swainson's Hawk in Dodge County, Minnesota. *Flicker* 31:98.
- Kuchler, A. W. 1964. Potential natural vegetation of the conterminous United States. American Geographical Society Special Publication No. 36. Map (39x60 in.) and Manual, 159 pp.
- Olendorff, R. R., and J. W. Stoddart, Jr. 1973. Potential for management of raptor populations in western grasslands, in Proceedings of the Conference on raptor conservation techniques, Fort Collins, Colorado, 22-24 March, 1973 (Part 4), eds., F. N. Hamerstorm, Jr., B. E. Harrel, and R. R. Olendorff. Raptor Research Report No. 2, Vermillion South Dakota. 146 pp.

Prentice, D. S. 1949. Nesting of Swainson's Hawk in Illinois. *Auk* 66:83.

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

Strnad, F. V. 1960. Swainson's hawk nesting in Dodge County. *Flicker* 32:124.

Worth, C. B. 1940. Egg volumes and incubation periods. *Auk* 57:58.

THE 1973 GREAT BLUE HERON MIGRATION IN MINNESOTA

by Max Partch

This report is a comparison of the 1973 Great Blue Heron migration in Minnesota with the 1972 migration (*The Loon* 44:85-87). The method of obtaining migration data, similar to that of 1972, was by reports from observers over the state reporting their first sightings of herons to me. Most reports were returned on printed cards which asked for place, date, number observed, habitat, and proximity to a nesting colony.

Sixty-five per cent of all first sightings in 1973 (Table 1) were between mid-March and mid-April compared to 79% in 1972. Figure 1 compares the weekly numbers of first sightings for 1972 and 1973, and shows similarity between curves, however, the most

significant points of the curves occur one week earlier in 1973.

In both years there was a week when first sightings increased over 500% from the first sporadic reports. This was followed by a week during which there was a reduction of 25% or more in first sightings. The fourth week of March in 1973 and the first week of April in 1972 an increase of 200-300 percent in first sightings occurred. These were the peak weeks of first sightings for the two seasons, and were followed by a pronounced decrease in first sightings beginning in April. Three first sightings in June extended the 1973 migration to fourteen weeks as compared to eleven in 1972.

Table 1. Sightings Per Week

	No. of 1st Sightings Reported	No. of Reports Extending Range	Days of 40° F or above at St. Cloud
March			
1st Week (1-7)	3	3	1/7
2nd Week (8-14)	16	14	4/7
3rd Week (15-21)	12	11	4/7
4th Week (22-end)	35	21	10/10
April			
1st Week	25	6	7/7
2nd Week	17	4	5/7
3rd Week	7	0	7/7
4th Week	10	0	9/9
May			
1st Week	4	1	7/7
2nd Week	3	1	7/7
3rd Week	1	1	7/7
4th Week	0		10/10
June			
1st Week	1 (Thunder Bay)		
2nd Week	2 (Thunder Bay and Ely)		

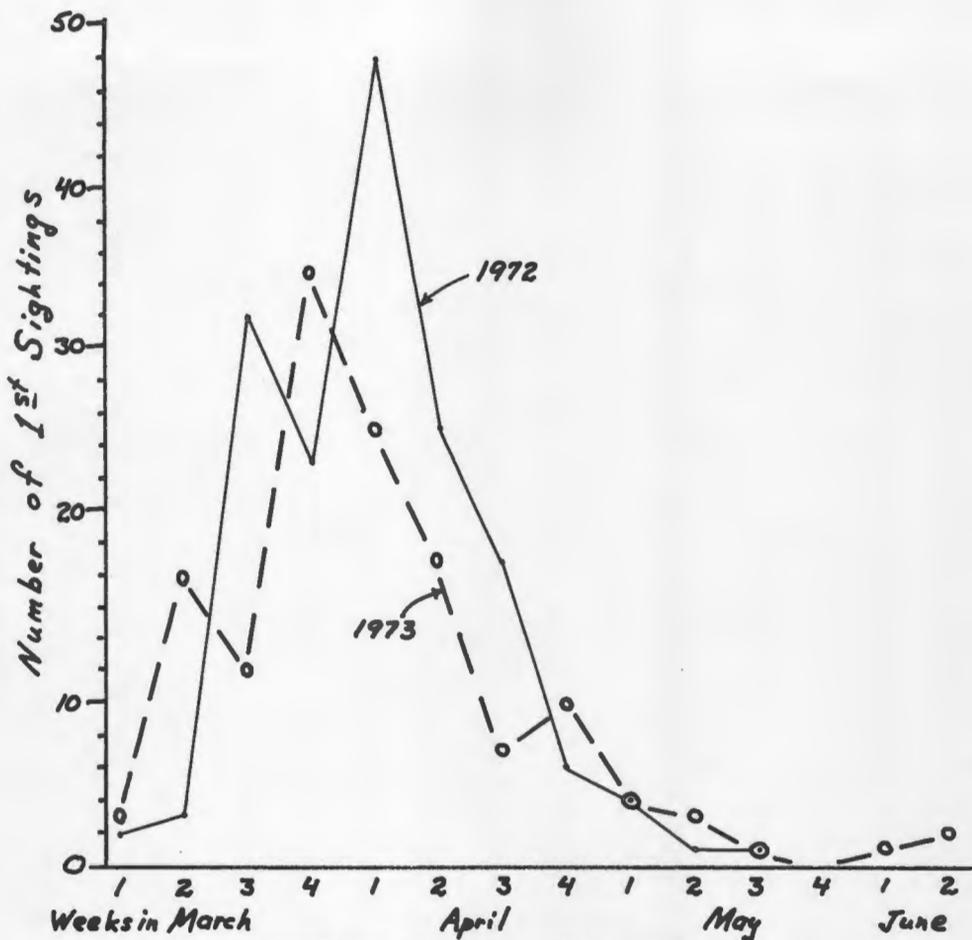


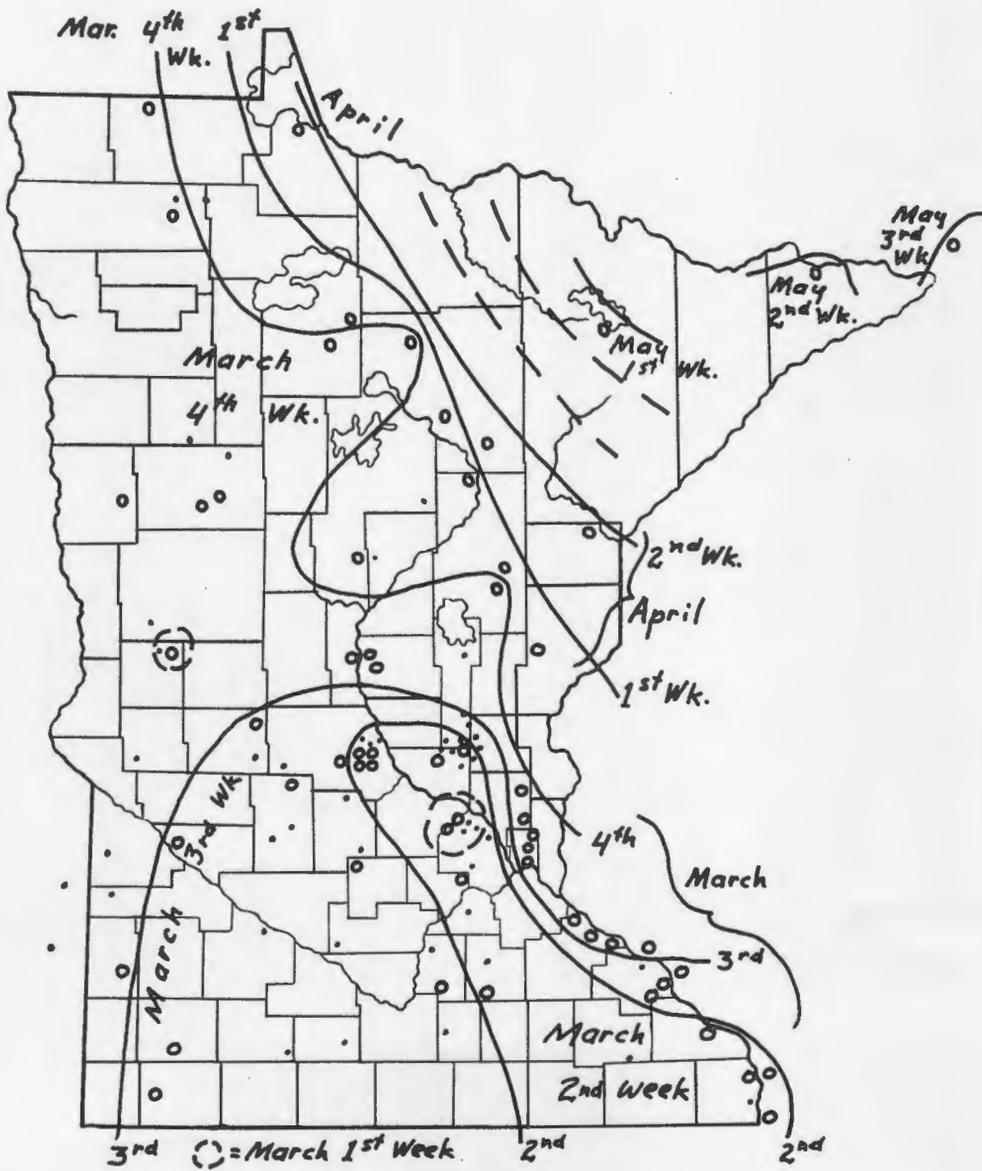
FIGURE 1. Number of First Sightings of Great Blue Herons per week in 1972 and 1973.

The column of 40° F temperature frequency in Table 1 shows that the first herons during 1973 were sighted when only one day per week had a maximum temperature of 40° F or above. At this time there were many days with maximum temperatures in the high thirties. This apparent correlation may not apply to other locations. The overall warm-up trend, earlier in 1973 with less of a cold reversal, may account for the peak week of first sightings occurring one week earlier than in 1972.

Table 2 indicates the number of herons observed at the time of first sighting. As in 1972, the majority of first sightings involved three or less birds,

(85% in 1972, 84% in 1973). This re-emphasizes the fact that Great Blue Herons do not migrate in sizable flocks. All groups of eight or more herons seen in March were at or near nesting colonies. On 1 March fourteen birds were along the Crow River at Rockford, about 12½ miles from a nesting colony. A group of over fifty was seen standing on the nests at Lake Johanna near Brooten on 22 March. The lake was still frozen. Thirty herons were sighted near the Cannon River colony on 24 March. In April, one group of eight and one group of nine were seen near open water which was not near any known nesting colony.

The earliest bird reported, probably



Spring Migration Pattern of the Great Blue Heron in Minnesota, 1973

TABLE 2. Number of Herons Seen at First Sighting

No. of Herons Seen	No. of Observations
1	73
2	25
3	16
4	7
5	3
6	5
7	0
8	3
9	1
14	1
30	1
50+	1

a late straggler, was seen for the last time at the Sherburne National Wildlife Refuge on 31 January.

The earliest sighting of a returning migrant was at Pelican Lake near Ashby on 1 March. Two other early March records were from near Rockford. By the second week in March the herons were seen along the Mississippi River in southeastern Minnesota and as far northwest as the Stearns County area. During the third week in March, they were seen in the Wabasha area as well as in the southwest quarter of the state. The records which appear on the 1973 map for the second and third weeks of March are based on more sightings than were available in 1972. The areas as shown may be more valid. By the fourth week in March, during both years, the herons were seen north of the Twin Cities in eastern Minnesota and at or near the Canadian border in the northwestern part of the state. This diagonal migration line,

close to the border of the coniferous forest zone, is similar for the two years. During April and May of both years the migration into northeastern Minnesota occurred at a reduced speed, that is, a reduced distance covered per week compared with the other areas of the state. The records for the northeastern area may be too few to be reliable.

The map is drawn as if the herons sighted north of Lake Superior migrate up through Minnesota but some may actually be coming across the lake or from the east around the lake.

The numbers of first sightings reached a peak one week earlier in 1973 than in 1972. The numbers of first sightings which could extend the range were significantly higher for March of 1973, however, the maps of Great Blue Heron migration in Minnesota for 1972 and 1973 are similar. **St. Cloud State University, St. Cloud, Minnesota 56301.**

GULLS AND TERNS NESTING AT DULUTH

by James T. Harris and
Sumner W. Matteson

During the summer of 1974 we counted nesting Ring-billed and Herring Gulls and Common Terns along the Wisconsin shoreline of Lake Superior (see Harris and Matteson, in press). As part of that study we surveyed the entire Wisconsin side and most of the Minnesota side of the Duluth-Superior harbor. In this paper we report our observations of gull and tern colonies at Duluth-Superior. While these birds feed throughout the harbor, in 1974 all colonies lay in Minnesota.

This paper has two main purposes. First, we recorded baseline data on colony locations and size, so that future impacts upon the study species can be detected. All three species are sensitive to human activities. Second, we recommend measures for the management and protection of these striking birds. We report our Duluth data with hopes that the status of gulls and terns in Minnesota will be closely observed in future years. The Ring-billed Gull will be of special interest because its populations have explosively increased on the lower Great Lakes in recent decades (Ludwig, 1974) and the species may be extending its range into the Lake Superior region.

1. Previous Breeding Records

Very few Minnesota breeding records exist for the Ring-billed Gull. In 1936, one pair nested on a rocky ledge on Lake Superior in Cook County (Thompson, 1936). In 1960, one dead Ring-billed Gull egg was found at the tern colony on Leech Lake, Cass County (Dickerman and Lefebvre, 1961). The next record came in 1963 from Hennepin Island in Mille Lacs Lake, where Hiemenz (1964) found 100 pairs and many nests with eggs and young. Since 1966, 50 to 90 pairs have nested at Mille Lacs Lake on Hennepin and Spirit Islands (Ivanovs, 1971; Green

and Janssen, 1975). In 1971, 6 pairs nested on Leech Lake (Parmalee, 1971).

No nest records exist away from these locations, except for nesting attempts in Duluth in 1973. On May 28, 1973, 30 or more nests were found on the 27th Avenue West taconite dock. All nests were later destroyed; on June 24, three new nests were found (Janet Green, as reported to the MOU Nest Card Program).

A single record exists for Superior, Wisconsin. Cohen (1958) discovered one Ring-billed Gull nest with two eggs on June 29, 1957, within a Common Tern colony on Barker's Island.

Herring Gulls nest alone or in colonies of up to 200 pairs on rocky islands and mainland cliffs along the Minnesota shoreline of Lake Superior (Green and Janssen, 1975). The large colony closest to Wisconsin is at Knife Island, where from 150 to 300 pairs have nested at least since the late 1940's (Hofslund, 1952a; Janet Green, in litt.). The species has not been reported breeding successfully at Duluth, although in 1973 pairs attempted nesting in the 27th Avenue West dock area.

The Common Tern nests on large lakes in northcentral and north eastern parts of Minnesota, in colonies of up to 500 to 1000 pairs (Green and Janssen, 1975). On Lake Superior, Common Terns have been recorded nesting only in the Duluth-Superior harbor.

The terns at Duluth have generally occupied one main colony, with smaller numbers of pairs nesting at other locations. Most of the sites are islands created by dredging operations in the harbor. As sparse vegetation appears, the location becomes ideal for terns; yet after several years encroaching bushes and saplings force the terns to move elsewhere. From the 1940's un-

til 1954 the main colony was Harbor Island with as many as 87 nests (Hofslund, 1952a; Bronoel, 1953, 1954, and 1955). In 1956, a newly created sand spit off Superior held the majority of pairs (Finseth, 1957). This may be the same site as the north end of Barker's Island, which had 108 pairs in 1957 (Cohen, 1958). In 1960, Harbor Island held no Common Tern nests, and in 1961, only several unsuccessful nests. A large colony of terns was present on Minnesota Point (Cohen, 1960; Cohen and Cohen, 1961). A colony on Minnesota Point (perhaps the same site) by the Sky Harbor Airport served as the main location until in the early 1970's with increasing vegetation breeding habitat deteriorated there. In 1972, this site held 20 to 30 pairs, while an area of newly deposited dredged sand near the Port Authority had over 120 nests (Henry Roberts, personal communication). As some sand was removed for building construction from this latter area in 1973, few pairs nested, so that 1973 was probably a very poor year for Duluth tern reproduction.

2. Methods and Data

We surveyed the Duluth-Superior harbor by boat. We first visited the area on June 25 and 26, 1974 briefly exploring the shorelines and landing at the Port Authority and Sky Harbor tern colonies to count nests, eggs, and young. On our second visit, from July 14 to 18, we thoroughly examined the entire Wisconsin shoreline, including bays, marsh areas, the lower Nemadji River, and up the St. Louis River $\frac{1}{2}$ mile beyond Mud Lake. We also viewed most of the Minnesota side of the harbor, although we may have overlooked some single nesting pairs or even small colonies. In July we searched some of the colonies for nests, eggs, and young, but because of the disruption human visitors cause, we did not collect complete data on numbers of young and reproductive success.

3. Results — the Ring-billed and Herring Gulls

We found Ring-billed Gulls nesting at three locations in Duluth. One pair with two eggs nested at the Port Authority tern colony. With the Common Tern nests on two small islands (see Section 4) in the St. Louis River were four Ring-billed nests, two on each island. On the north island we found one bad egg and one chick. We discovered no young on the south island, although a half-grown chick and two fledglings swam 200 feet to the south.

We discovered a large colony on a narrow peninsula on the Minnesota shore of the St. Louis River, at the Minnesota Power and Light Company stacks and tank. The gulls occupied the outer $\frac{2}{3}$ of the point where vegetation became less thick. The point rose as high as four feet above the water, with drift litter, large and small rocks, and some saplings but a larger area of open ground. On July 18 we counted a total of 790 Ring-billed Gull chicks, many of them already fledged. Young Ring-billeds outnumbered adults present. Because of the age of the young and the density of territories, we did not land to count nests, but estimate that between 475 and 550 pairs bred here.

This is by far the largest Ring-billed colony recorded for Minnesota. The huge power plant and the surrounding barren ground seem to have successfully insulated the peninsula from mainland predators, providing an unusual but suitable location for the gulls. A similarly situated colony has been reported near Rogers City, Michigan (Southern, 1967). To our knowledge Ring-billed Gull chicks have never before been reported from the Duluth area. Given the highly successful reproduction of the Minnesota Power and Light adults, Ring-billed Gulls will probably continue to nest in Minnesota in greater numbers than formerly.

We found no Herring Gull colonies in Duluth. One pair nested in the Port Authority Common Tern colony. We

saw a second nest atop a buoy in the harbor.

4. Results — the Common Tern

Common Terns occupied four locations in Duluth. As in 1972 and 1973, the majority nested near the Port Authority, an odd mainland location distant from human activity and isolated by highways. On June 26, 1974 we counted 160 nests, widely scattered on several hundred square yards of sand. An area within the middle of the colony had no vegetation. Most nests lay among sparse grasses or scattered willow shoots. In July we did not make any counts of young, although many were present and we believe that the colony was quite successful.

We observed at least 16 adult terns at the small Sky Harbor Airport on Minnesota Point. This mainland colony was protected from human intruders by its proximity to the runway, where no trespassing was allowed. Nests and young were difficult to locate among the grasses, but we did count eight scrapes and two additional young probably from scrapes we couldn't locate, for a total of at least ten nesting pairs. We found seven young and ten eggs on June 26.

On July 18 we located ten nest scrapes on the mainland just north of the Ring-billed Gull colony at the Minnesota Power and Light Company. These scrapes lay on piles of ash and scrap from the Power Company's furnaces, 15 to 20 feet from the water and four to six feet above its level. The terns had no vegetation for cover, although trash piles lay inland from the colony site. At least 20 adult terns were present with three fledglings and two half-grown chicks. Other chicks may have hidden in the trash. Like the Ring-billed colony, this colony was protected by the Power plant and barren ground.

To the south of this colony in the St. Louis River, Common Terns nested on the two small islands that the Ring-billed Gulls also inhabited. At least 19 adults were present on July 18, and

we estimate 12 to 16 scrapes had been made, perhaps some of these renests.

Both islands, and three others to the southwest that had thick growths of bushes and small trees, were man-made. The northern of the two had a brick shore and mortared stone in its middle, but was otherwise choked with nettles. In the limited open space we found four scrapes — two empty, two with clutches of three eggs, and four dead young. The southern island was very low. On a small area of open shore we found five nests, with a total of two warm and two bad eggs. The rest of the island supported a tangle of grasses and annual flowers. Nine bad eggs lay hidden in grasses. The only open spot in the middle was a shallow pool of water; eight eggs had fallen in, perhaps displaced by the adult terns as they had struggled through the vegetation.

The soil was damp and dark. We believe that in May the vegetation had been low or sparse enough to encourage nesting, but the plants quickly grew until at two or three feet in height they had literally closed off the nests from the terns. We did find three live young crouched in the grasses.

During the fall of 1974, much of the sand at the Port Authority colony was removed or covered. Beginning in 1975 buildings will be erected over much of the site. With the loss of what was by far their best location, the future of Duluth terns is uncertain. The St. Louis island colonies are unsuitable and the Sky Harbor location becoming increasingly overgrown. Some pairs may settle at the barren Power Company colony. On the Wisconsin side of the harbor, the only possible location is Barker's Island, where terns once nested. Some parts still are open, although subject to heavy disturbance. Perhaps terns will discover a new location on the Minnesota side, which we examined less thoroughly.

5. Recommendations for Management and Protection

Suitable habitat — sparsely vegetat-

ed islands or isolated portions of the mainland — for gull and tern nesting is limited. For this reason gulls and terns can be greatly affected by disturbance and by habitat loss. At present human visitors to the colonies do not appear to be a problem. In the future, some colony sites may require special protection.

In particular, the Ring-billed Gull colony by the Minnesota Power and Light Company must remain free of disturbance. Ring-billed Gull chicks that stray from their parents' narrow territory will be attacked by neighboring adults. Emlen (1956) found that the majority of chick deaths occurred in these territorial encounters. Human visitors can cause heavy mortality, for each intruder will send all the chicks running into stranger adults' territories.

The main 1974 tern colony site will no longer be available for nesting. With increasing human development of the harbor area, it is uncertain whether or not sufficient habitat now remains for the terns to relocate and nest. Most of the recent tern colony sites in Duluth-Superior have been created by the dredging activities of the U.S. Army Corps of Engineers. The Corps now has plans to begin disposing sludge at a new site. Additional tern habitat may thus by chance be created. But if the terns do not discover a new nest location, strenuous efforts should be made to alter existing locations. It would be possible to remove vegetation from parts of Harbor Island or the Sky Harbor Airport. This action involves two difficulties: first, finding persons willing to organize and perform the work involved, and second, obtaining permission to remove vegetation. Many people are not sympathetic to tern nesting needs and consider bare ground an eyesore. But it would be unfortunate for the city to lose its terns, which last summer could be seen foraging through every corner of the harbor.

6. Recommendations for Follow-up Studies

The present colony sites and other likely areas should be visited annually to obtain counts of adults, nests, and young. The breeding status of the Ring-billed Gull may rapidly change from year to year. The future of Common Terns appears precarious; annual data will be required to determine whether special management efforts are necessary.

A complete census of gulls and terns nesting along Minnesota's Lake Superior shore would provide baseline information for comparison with future counts, so that human impacts upon the species could be detected.

We have filed copies of an extensive report on our Wisconsin study (Harris and Matteson, manuscript) with the Sea Grant Program and the Department of Wildlife Ecology at the University of Wisconsin-Madison, with the National Park Service at Little Sand Bay, Northland College, and the Wisconsin DNR. Anyone planning a similar survey for Minnesota should consult this report for details on our methods, results, and recommendations, and for life history information on the study species.

Acknowledgments

The Sea Grant Program at the University of Wisconsin and the RGDED Foundation of Chicago funded our study. We relied upon many facilities at the University of Wisconsin-Madison to complete our research, and used boats from the University of Wisconsin-Superior.

Ruth L. Hine and Daniel E. Willard gave us continual support and invaluable suggestions. Many other persons helped us. We are particularly grateful to James L. Clapp, David E. Donnelley, Raymond A. Faber, Janet C. Green, Joseph J. Hickey, Robert E. and Jane P. Matteson, and Henry Roberts. John and Cecilia Knight of Wisconsin Point were kind host and hostess during our visits to the area.



Ring-billed Gulls nested in a large colony at the Minnesota Power and Light Company.



Common Terns nested near Duluth's Port Authority. Tern nests were located at the edges of the vegetation and on the open sand nearby. The tent served as our observation blind.



Common Tern nest. One egg has hatched, and the chick crouches against the sand.



An adult Common Tern has returned with a fish.



An adult Common Tern offers a fish to its newly hatched chick.



The adult Common Terns wait while their chick swallows its fish.

LITERATURE CITED

- Bronoel, J. K. 1953. Harbor Island Census — 1953. **Flicker** 25:111.
- Bronoel, J. K. 1954. Census of Harbor Island in St. Louis Bay — 1954. **Flicker** 26:118.
- Bronoel, J. K. 1955. Census of Harbor Island in St. Louis Bay — 1955. **Flicker** 27:174.
- Cohen, R. R. 1958. Common Tern Colony on Barker's Island, St. Louis Bay. **Flicker** 30:39.
- Cohen, R. R. 1960. A study of Harbor Island, Duluth. **Flicker** 32:73-75.
- Cohen, R. R., and S. B. Cohen. 1961. Second Year Study, Harbor Island, Duluth. **Flicker** 33:111-113.
- Dickerman, R. W., and E. Lefebvre. 1961. Ring-billed Gull Nesting in Minnesota. **Flicker** 33:23.
- Emlen, J. T., Jr. 1956. Juvenile Mortality in a Ring-billed Gull Colony. **Wilson Bulletin** 68:232-238.
- Finseth, O. A. 1957. A New Common Tern Colony. **Flicker** 29:39.
- Green, J. C., and R. B. Janssen. 1975. **Minnesota Birds**. University of Minnesota Press, Minneapolis.
- Harris, J. T., and S. W. Matteson. In press. Gulls and Terns on Wisconsin's Lake Superior Shore. **Passenger Pigeon**.
- Harris, J. T., and S. W. Matteson. Manuscript. **Gulls and Terns as Indicators of Man's Impact Upon Lake Superior**. Report to the University of Wisconsin Sea Grant Program. 90pp.
- Hiemenz, N. M. 1964. Ring-billed Gull Nesting in Minnesota — Hennepin Island Mille Lacs Lake, Mille Lacs County, June 11, 1963. **Loon** 36:133.
- Hofslund, P. B. 1952a. 1952 Census of Knife Island. **Flicker** 24:162-163.
- Hofslund, P. B. 1952b. Sixth Annual Harbor Island Census. **Flicker** 24:164.
- Ivanovs, M. 1971. Nesting of Ring-billed and Herring Gulls on Mille Lacs Lake, 1970. **Loon** 43:58-59.
- Janssen, R. B., 1974. Ring-billed Gull Nesting at the Port Terminal, Duluth. **Loon** 46:175-176.
- Ludwig, J. P. 1974. Recent Changes in the Ring-billed Population and Biology in the Laurentian Great Lakes. **Auk** 91:575-594.
- Parmelee, D. F. 1971. Nesting of Ring-billed Gulls on Leech Lake, Cass County, Minnesota. **Loon** 43:72-74.
- Southern, W. E. 1967. Dispersal and Migration of Ring-billed Gulls from a Michigan Population. **Jack-Pine Warbler** 45:102-111.
- Thompson, Milton. 1936. Minnesota Nesting Record of the Ring-billed Gull. **Flicker** 8:50.

1226 Rutledge Street,
Madison, Wisconsin 53703
and
1502 Adams Street,
Madison, Wisconsin 53703

THE FALL SEASON - Aug. 1 to Nov. 30, 1974

by Paul Egeland

This season saw 271 species reported of which 10 are either on the casual or accidental list. There were 48 observers who submitted seasonal reports, which is an unfortunately low total considering there are more than 800 subscribers to *The Loon*. I am sure this report would be much more complete if more people could take the time to send in their records.

As usual, the weather had its effect on migration. Killing frosts covered the entire state on Labor Day weekend and cooler than normal weather lasted throughout September. However, October and November were warmer than normal and therefore in sharp contrast to September. The warm late fall resulted in some record late dates, particularly for warblers. There was a Black-throated Green in Minneapolis on 11/1, a Blackburnian in Murray County on 10/12, a Connecticut in Minneapolis on 10/3, a Cape May in Lake County on 11/2, an Ovenbird in Lac Qui Parle County on 10/28, and a Wilson's in Lyon County on 11/9.

The entire fall season was extremely dry in most areas. This may have accounted for the poor shorebird migration evidenced by the few shorebirds listed on the reports submitted.

The highlights of the fall season indicated that western birds were wandering east. There was a Cinnamon Teal in Yellow Medicine County, Prairie Falcons were seen in Duluth and Carlos Avery in Washington County, a Rufous Hummingbird was seen near Grand Rapids, Itasca County, a Rock Wren showed up at Pipestone National Monument, and the Black-throated Sparrow at Duluth during the Hawk Count gave many a new life bird.

Other highlights included an Arctic Loon on Mille Lacs Lake, Surf Scoters in southern Minnesota, more Peregrine Falcon records than for several years, an Iceland Gull near Duluth, a Gyrfalcon banded at Hawk Ridge, and

300+ Saw-whet Owls banded at Hawk Ridge. A Thayer's Gull was in Dakota County, a rare fall Hudsonian Godwit showed up in Mille Lacs County, Spragues Pipits were seen at the Moorhead sewage lagoons, and a Smith's Longspur was seen in Duluth. These are not all the good reports, a thorough reading of the report will reveal more.

The style of this report goes back to that used by Kim Eckert and myself in 1970 and 1971, with an attempt to list early and late migrants split between the North and South. I rather doubt this format can continue because of the number of hours necessary to do the compiling.

Common Loon

Late south 11-4 Freeborn DG; 11-18 Hennepin ES; 11-28 Le Sueur GR; late north 11-9 Hubbard HF; 11-24 Crow Wing JB.

ARCTIC LOON

11-1 Mille Lacs Lake (1) RBJ, PE; 11-3 Mille Lacs Lake (2) JB.

Red-necked Grebe

Late south 9-19 Wabasha WDM; 9-29 Hennepin FN; late north 9-22 St. Louis RBJ; 10-10 Marshall AR.

Horned Grebe

9-28 Carver PZ; 10-26 Hennepin CH; 10-27 Wright ES; late north 11-10 Crow Wing (50) JB; 11-14 Lake JG.

Eared Grebe

Only report south 8-17 Lyon RBJ, PE; all reports north 9-2 Clay KBZ; 10-17 Marshall HR; 11-16 Duluth MMC.

Western Grebe

Late south 9-14 Carver KG; 10-9 Freeborn DG; 10-12 Murray LR; late north 10-25 Marshall AR; peak 9-21 Marshall (200) AR.

Pied-billed Grebe

Late south 11-17 Hennepin ES; Wright BH; 11-29 Le Sueur GR; late

north 11-8 Marshall AR; 11-9 Pope RBJ; 11-16 Lake JG.

White Pelican

Late south 9-25 Lac Qui Parle AFE; 9-28 Carver PZ; late north 10-23 Silver Bay, Lake J. Gallian; 10-24 Marshall AR; Peak 9-16 Jackson (1000+) LF.

Double-crested Cormorant

Late south 10-14 Le Sueur GR; 11-6 Lac Qui Parle KE; late north 9-16 Itasca MS; 10-10 Marshall AR.

Great Blue Heron

Late south 10-25 Hennepin OJ; 11-3 Houston FL; late north 10-9 Itasca MS; 10-24 Marshall AR.

Green Heron

Late south 9-25 Ramsey GC; 9-29 Hennepin OJ; **10-29** Wabasha WDM; late north 9-26 Carlton D. Engstrom.

Cattle Egret

All reports 8-3 Grant (1) RBJ, 9-11 Dodge J. Heather (2); 9-21 Marshall (2) AR; 10-12 Marshall (1) AR; 11-20 Cottonwood one immature found dead in Spruce Tree fide LF.

Great Egret

Late south 10-1 Hennepin EF; 10-19 Dakota PZ; late north 9-7, 9 St. Louis fide JG; 10-10 Marshall AR; Peaks 8-21 Le Sueur (77) GR; 8-31 Dakota (90) MW.

Black-crowned Night Heron

Late south 9-21 Chisago BH; 9-26 Hennepin OJ; 10-6 Freeborn DG, late north 10-14 Marshall AR.

Yellow-crowned Night Heron

9-17 Houston (1 immature) FL.

Least Bittern

All reports 8-18 Rice OR; 8-25 Wright BH; 8-31 Hennepin PZ; 9-3 Dakota (3) MW; 9-5 Marshall AR.

Flamingo

9-25 Marshall AR — an escape from zoo in Winnipeg.

American Bittern

Late south 9-20 Wabasha WDM; 9-25 Ramsey GC; 11-2 Wright B. Johnson; late north 9-15 Itasca DB; 10-28 Marshall AR.

Whistling Swan

Early 9-27 Marshall AR; late south 11-15 Olmsted JF; 11-17 Hennepin ES; 11-30 Wabasha WDM; late north 11-18 St. Louis fide JG; 11-23 Mille Lacs MI; Peak 11-2 Wabasha (4000) WDM.

Canada Goose

Late north 11-21 Mille Lacs MI; 11-23 Duluth D. Hojnacki; peak 10-15 Lac Qui Parle (46,000) AFE.

White-fronted Goose

11-19 Olmsted JF (only report)

Snow/Blue Goose

Early 9-15 Lac Qui Parle AFE; 9-17 Marshall AR; late south 11-17 Murray LR; 11-24 Lac Qui Parle AFE; 11-27 Wabasha PZ; late north 11-3 Cook RBJ; 11-7 Marshall KE.

Mallard

Peak 10-7 Marshall (67,000) AR.

Black Duck

Early south 8-11 Hennepin FN; 9-25 Ramsey GC; late north 11-17 Duluth MMC.

Gadwall

Late south 11-2 Wabasha WDM; 11-12 Hennepin EF; 11-16 Winona FL; late north 11-7 Marshall KE; 11-9 Crow Wing JB; 11-10 Ottertail LCF; peak 10-17 Marshall (32,000) AR.

Pintail

Late south 11-11 Hennepin VL; 11-21 Wabasha WDM; late north 11-7 Marshall KE; peak 10-10 Marshall (3,600) AR.

Green-winged Teal

Late south 11-7 Wabasha WDM; 11-12 Hennepin EJ; late north 11-9 Crow Wing JB; 11-10 Ottertail LCF; peak 10-10 Marshall (4,400) AR.

Blue-winged Teal

Late south 10-19 Wright BH; 10-21 Hennepin VL; 10-27 Anoka GC; late north 11-11 Marshall AR.

CINNAMON TEAL

8-17 Tyson Lake Yellow Medicine (1) RBJ, PE.

American Wigeon

Late south 11-14 Le Sueur GR; 11-17 Hennepin ES, FN and Wabasha WDM; late north 11-10 Ottortail LCF; peak 10-10 Marshall (3,400) AR.

Shoveler

Late south 10-6 Freeborn DG; 11-2 Dakota KG; 11-21 Hennepin CH; late north 11-7 Marshall KE.

Wood Duck

Late south 11-16 Le Sueur GR, Wabasha WDM; 11-24 Hennepin ES; 11-7 Marshall KE.

Redhead

Late south 11-7 Hennepin VL; 11-24 Wright BH; late north 11-10 Crow Wing JB, Ottortail LCF.

Ring-necked Duck

11-14 Wabasha WDM; 11-23 Hennepin VL; late north 11-10 Crow Wing JB, Ottortail LCF; 11-29 St. Louis RBJ; peak 10-10 Marshall (8,000) AR.

Canvasback

Late south 11-24 Wright DH; 11-28 Cottonwood LR; 11-30 Le Sueur GR; late north 11-10 Duluth JG; 11-10 Crow Wing JB; peak 11-1 Houston (70,000) U.S. Fish and Wildlife Service count.

Greater Scaup

11-2 St. Louis RBJ; 11-10 Cook ES only reports.

Lesser Scaup

Late south 11-24 Wright BH; 11-25 Wabasha WDM; 11-30 Le Sueur GR; late north 11-24 Duluth JG; 11-24 St. Louis RBJ; peak 11-7 Marshall (14,000) AR.

Common Goldeneye

Early south 11-21 Hennepin CH; 11-23 Ramsey.

Bufflehead

Late south 11-17 Hennepin ES, Le Sueur GR, Murray LF; late north 11-10 Duluth JG, KE, Crow Wing JB, Ottortail LCF.

Oldsquaw

11-2 Lake Cook RBJ; 11-8 Beltrami

The Loon

KE; 11-7, 11-11 Marshall AR, KE; 11-10 Cook ES.

White-winged Scoter

11-2 St. Louis, Cook, Lake RBJ; 11-10 Cook ES.

Surf Scoter

9-24 Cook (3) T. Dyke; 10-19 Cottonwood 1 shot by hunter fide LR; 11-2 Cook RBJ; 11-10 Cook ES; also GR reports 1 shot by hunter in Le Sueur County.

Black Scoter

10-26 Mille Lacs JB (5); 11-2 Cook RBJ; 11-3 Mille Lacs Lake JB (14); 11-8 Beltrami KE; 11-10 Cook ES.

Ruddy Duck

Late south 10-4 Meeker RBJ; 10-10 Wabasha WDM; 11-3 Hennepin KG, PZ; late north 11-7 Marshall KE; peak 10-10 Marshall (4,000) AR.

Hooded Merganser

Late south 11-13 Hennepin FM; 11-23 Hennepin OJ; late north 11-10 Duluth JG, Crow Wing JB; 11-13 Marshall AR.

Common Merganser

Early south 10-27 Ramsey AC; late north 11-13 Marshall AR; 11-27 Hubbard HS.

Red-breasted Merganser

Late south 11-9 Pope RBJ (only report south); late north 10-17 Marshall AR; 11-16 Duluth JG.

Turkey Vulture

Late south 9-30 Wabasha WDM; 10-13 Olmsted JF; late north 9-28 Morrisson LR; 10-12 Crow Wing EC.

Goshawk

Only reports south 11-14 Hennepin OJ; 11-23 Dakota RBJ; peak 8-31 to 12-11 Hawk Ridge (1,300).

Sharp-shinned Hawk

Late south 11-4 Hennepin PF; 11-17 Le Sueur GR; 11-30 Wabasha WDM; late north 11-3 Hubbard HF; 11-17 Duluth DM.

Cooper's Hawk

All reports 9-7 Rock KE; 9-15

Wright ES, EH; 10-19 Le Sueur GR; 11-27 Hennepin OJ; 8-17 Duluth MC.

Red-tailed Hawk

Late north 11-6 St. Louis MFC; 11-17 Lake JG; 11-21 St. Louis B. Hojnacki; 10-16 Hennepin OJ (Krider's).

Red-shouldered Hawk

All reports 8-17 Anoka CH(2); 10-11 Hennepin OJ; 11-12 Mille Lacs OJ; 10-27 Dakota GC.

Broad-winged Hawk

Late south 9-22 Le Sueur GR; 9-27 Hennepin GL; 10-27 Ramsey OJ; late north 10-25 Duluth CH; peak 8-27 to 10-25 (32,000) Hawk Ridge.

Swainson's Hawk

8-17 Pipestone, Murray RBJ, KE, PE; 8-13 Rock KE; 8-6 Dakota DH; all reports.

Rough-legged Hawk

Early south 9-6 Marshall AR, 9-24 Hennepin EJ; 9-30 Wabasha WDM; late north 11-21 Duluth; 11-24 Carlton JG; 11-30 Mille Lacs MI.

Golden Eagle

9-27, 10-17, 10-27 Marshall AR; 10-5 Hennepin CCS; 11-30 Wabasha WDM.

Bald Eagle

Reported from Hubbard, Lake, Mille Lacs, Le Sueur, Winona, Wabasha, Houston, Murray, Itasca and St. Louis, 9-3 to 12-10 (89) migrated past Hawk Ridge.

Marsh Hawk

Late south 11-13 Le Sueur GR; 11-28 Wabasha WDM; late north 11-10 Aitken KE; 11-11 Mille Lacs MI; 11-21 St. Louis B. Hojnacki.

Osprey

Late north 10-28 Hubbard HF; 10-28 Sherburne MC; 11-17 Duluth DM; also reported from Mille Lacs, Itasca, Dakota, Big Stone, Le Sueur, Houston, Cass, and Beltrami Counties; peak 8-30 to 10-14 Duluth (75).

Peregrine Falcon

9-21 Le Sueur GR; 9-18 Hennepin ES; 9-28 Clay KBZ; 10-5 Clay, Mary

Wyatt; 11-6 Clay KBZ; 11-8 Clearwater KE; 9-14 to 10-11 Duluth, Hawk Ridge (8).

GYRFALCON

11-20 Duluth, Hawk Ridge — banded by Dave Evans.

PRAIRIE FALCON

8-6 Duluth MMC; 9-4 Carlos Avery Game Refuge W. Shively.

Merlin

8-21 Itasca MS; 9-7 Rock KE; 9-8 Hennepin OJ; 10-4 Crow Wing JB; 10-28 Stearns MC; 8-31 to 9-22 Duluth for reports by RBJ, CH, JC, and KE.

American Kestrel

Late north 10-10 Marshall AR; 10-18 Itasca MS; 11-3 Clay LCF.

Spruce Grouse

9-19 Langley River J. Greenberg; 10-5(2), 10-27(3) Itasca DB; 11-8 Lake of the Woods KE; 11-9 St. Louis, John Green.

Ruffed Grouse

Reported from Marshall, St. Louis, Lake, Mille Lacs, Becker, Itasca, Hubbard, Kanabec, Benton, Morrison, Cook, Lake of the Woods, Koochi-ching, Pine Counties.

Greater Prairie Chicken

9-12 Becker (12) EW; 10-3 Wilkin (2) RBJ; 11-6 Polk (60) KBZ.

Sharp-tailed Grouse

Marshall — several October sightings AR; 8-10 Aitkin KE, ES; 11-6 Sax-Zim JG, MMC.

Bobwhite

10-17 Faribault OR (1) only report.

Turkey

9-7 Houston (7ad. 28y) Herbert Zarwell fide FL.

Chukar

11-12 Sartell Stearns Co. NH (probable escape or release).

Ring-necked Pheasant

Reported from Duluth, Clay, Hubbard, Faribault, Benton, Cottonwood, Brown, Ramsey, Murray, Hennepin, Wilkin, Rock, Chisago, Le Sueur, Wa-

seca, Blue Earth, Steele, Freeborn, Traverse, Stevens, Wright, Big Stone, Lac Qui Parle, Pope, Dakota.

Gray Partridge

Reported from Clay, Faribault, Murray, Lac Qui Parle.

Sandhill Crane

7 reports: 8-11 Aitkin; 9-13 Crow Wing; 10-3 Wilkin RBJ; 10-7 Marshall AR; 10-24 Clay, Norman KBZ; 11-10 Clay EW; 10-12 Norman (2000) JB.

Virginia Rail

Late south 8-16 Wright ES; 8-24 Blue Earth RBJ only reports.

Sora

Late south 9-2 Carver; 9-20 Wabasha WDM; 10-6 Freeborn DG; late north 9-8 St. Louis NH; 9-14 Crow Wing RBJ.

Common Gallinule

8-24 Houston (11) FL; 9-14 Sibley KG; 9-24 Houston KBZ.

American Coot

Late south 11-30 Hennepin PF, CH; 11-30 Wabasha WDM; late north 11-10 Crow Wing JB, KE, Ottertail LCF; 11-11 Marshall AR.

Semipalmated Plover

Early 7-20 Marshall AR; 7-27 Cottonwood, Lyon, Lac Qui Parle RBJ; 8-5 Mille Lacs MI; late south 9-3 Dakota MW; 9-10 Le Sueur GR; late north 9-3 Mille Lacs MI; 9-8 Duluth GC.

Piping Plover

4 reports from Duluth 8-6 to 8-14 JG, MMC, ES, KE.

Killdeer

Late south 10-26 Rock KE; 10-27 Ramsey GC; 11-17 Hennepin ES; late north 10-17 Marshall AR; 11-5 Clay FMAS.

American Golden Plover

Early south 9-15 Rock KE; early north 7-30 Duluth MMC; 8-22 Clay LCF; late north 11-2 Duluth JG, RBJ; 11-7 Lake of the Woods KE; late south 10-26 Rock KE; 10-27 Ramsey GC; 11-17 Hennepin ES.

The Loon

Black-bellied Plover

Early north 8-10 Duluth MMC; 9-15 Clay KBZ; late north 11-2 Duluth JG, RBJ; 11-5 Clay FMAS; only reports south 9-15 Rock KE; 10-6 Freeborn DG.

Ruddy Turnstone

Only reports 9-21 Duluth RBJ; 9-22 Duluth GC; 9-27 Duluth LP.

American Woodcock

Late north 11-2 St. Louis RBJ; 11-9 Mille Lacs MI; only report south 8-27 Wright ES.

Common Snipe

Late south 10-25 Wabasha WDM; 10-30 Hennepin VL; 11-23 Ramsey GC; late north 10-29 Mille Lacs MI, Duluth JG.

Whimbrel

8-10 Duluth MMC.

Upland Sandpiper

Late 8-1 Duluth MMC; 8-3 Wilkin RBJ; 8-17 Lyon RBJ, PE; 8-24 Aitkin JB.

Solitary Sandpiper

Early north 7-7 Duluth MMC; 7-20 Marshall AR; early south 7-7 Hennepin OJ; 7-11 Lincoln KE; late north 8-30 Mille Lacs MI; 9-27 Marshall AR; late south 9-10 Le Sueur GR; 9-29 Hennepin VL; peak 8-29 Mille Lacs (18) MI.

Willet

8-3 Wilkin RBJ; 8-25 Freeborn DG; only reports.

Greater Yellowlegs

Early north 7-4 Marshall P. Hofsund; 7-17 Clay FMAS; early south 7-15 Hennepin OJ; 7-21 Rock KE; late north 11-7 Marshall AR; late south 10-27 Dakota GC; 10-30 Hennepin VL.

Lesser Yellowlegs

Early 6-28 Rock KE; 7-1 Clay FMAS; 7-3 Lac Qui Parle VL; late north 9-15 Clay KBZ; 9-19 Mille Lacs MI; late south 11-1 Hennepin KG, VL; 11-2 Cottonwood LR.

Pectoral Sandpiper

Early 7-3 Lyon VL, Chippewa C. Henderson; 7-7 Duluth MMC; late north

10-24 Marshall AR; 11-5 Clay FMAS; late south 10-6 Freeborn DG, Hennepin CH, 10-19 Le Sueur GR.

White-rumped Sandpiper

6 reports which is well above normal 7-3 Lyon VL; 7-30 Mille Lacs MI; 8-6 Duluth MMC; 9-2 Ramsey GC; 9-3 Clay FMAS; 9-5 Mille Lacs MI.

Baird's Sandpiper

Early 7-3 Lyon VL; 7-11 Clay KBZ, Lincoln KE; late north 9-15 Clay KBZ; 9-22 Duluth KE; late south 9-29 Hennepin VL; 10-5 Le Sueur GR; 10-20 Anoka GC.

Least Sandpiper

Early 7-4 Duluth JG; 7-11 Lincoln KE, Clay FMAS; late north 9-20 Mille Lacs MI, Duluth DB; 10-16 Clay KZB; late south 9-10 Le Sueur GR; 10-6 Freeborn DG.

Dunlin

Early 7-21 Rock KE; 10-6 Duluth LP; 10-12 Marshall AR; late north 10-24 Marshall AR; 11-2 St. Louis JG, RBJ; late south 10-19 Dakota PZ; 11-6 Big Stone KE.

Long-billed Dowitcher

8-17 Rock KE, RBJ; call-notes heard.

Short-billed Dowitcher

7-27 Lyon, Lac Qui Parle RBJ, PE, KE; 8-18 Lyon KE; call-notes heard.

Dowitcher sp.

Early 6-29 Lyon PE; 7-11 Clay KBZ; late 10-24 Marshall AR.

Stilt Sandpiper

Early 7-4 Duluth JG; 7-7 Hennepin OJ; 7-11 Lincoln KE; late north 9-3 Mille Lacs MI; 9-15 Clay KBZ; no late south dates.

Semipalmated Sandpiper

Early 7-3 Lac Qui Parle VL; 7-7 Duluth; 7-11 Lincoln KE; late north 9-27 Marshall AR; late south 9-15 Le Sueur GR; 10-6 Freeborn DG; 11-1 Hennepin VL.

Western Sandpiper

7-3 Lac Qui Parle VL; 7-11 Clay KBZ; 8-5 Mille Lacs MI; 8-11 Olmsted JF; 8-31 St. Louis RBJ; 9-5 Dakota

MW; 9-7 Aitkin LP; 10-13 Clay JB (24); many more reports than normal.

Buff-breasted Sandpiper

5 reports from Duluth from 7-30 to 9-22 RBJ, OJ, KE, MMC, also 7-20 Anoka CH; 7-28 Cook (30) MMC; 8-30 Aitkin LP.

Hudsonian Godwit

Unusual fall record 9-19 Mille Lacs MI.

Sanderling

Early 7-3 Lyon VL; 8-14 Duluth JG; late north 9-27 Marshall AR; 10-20 Duluth GR; no reports of late dates south.

American Avocet

8-17 Lyon PE, RBJ.

Wilson's Phalarope

8-17 Rock, Pipestone, Lyon, Pope RBJ; only report.

Northern Phalarope

8-4 Cook MMC; late August St. Louis (6) Mike Link.

Glaucous Gull

11-10 Eagle Lake, St. Louis JG.

ICELAND GULL

11-17 Eagle Lake, St. Louis JG (1 imm.).

Herring Gull

Peak 9-3 Duluth (3000) MMC.

THAYER'S GULL

11-23 Dakota RBJ, PE.

Ring-billed Gull

Late north 11-10 Ottertail LCF; 11-18 Hubbard HF; 11-22 Mille Lacs MI; late south 11-29 Le Sueur GR; 11-30 Hennepin CH, Wabasha WDM.

Franklin's Gull

Late north 10-16 Clay LCF; 10-21 Marshall AR; late south 10-29 Cottonwood LF; 11-4 Hennepin PF; 11-9 Pope RBJ.

Bonaparte's Gull

Early 8-11 Duluth KE; 8-12 Mille Lacs MI; late north 11-10 Crow Wing KE; 11-24 Mille Lacs JB; late south 10-22 Hennepin CH; 11-9 Pope.

Forster's Tern

Latest 9-28 Marshall AR; 10-4 Pope RBJ.

Common Tern

No late dates reported.

Caspian Tern

8-30 to 9-16 Mille Lacs MI; 8-31 Le Sueur GR; 9-5 Marshall AR; 9-14 Benton RBJ; all reports.

Black Tern

Late north 9-27 Marshall AR; late south 9-14 Cottonwood LF.

Mourning Dove

Late north 10-28 Duluth JG; 11-6 Polk KBZ.

Yellow-billed Cuckoo

Late south 8-24 Waseca RBJ; 9-17 Le Sueur GR; 9-30 Cottonwood LF.

Black-billed Cuckoo

Late north 9-28 Kanebec DB; 10-5 Koochiching DB; late south 9-18 Cottonwood LF; 9-28 Wright RBJ.

Screech Owl

Reported from Clay, Hennepin, Renville, Le Sueur, Olmsted, and Rice counties.

Great-horned Owl

Reported from Rice, Itasca, Marshall, Mille Lacs, Lyon, Rock, Chipewa, Meeker, Wright, Hubbard, Carver, Dakota, Hennepin, Kandiyohi, Lake of the Woods, Clearwater, Wabasha, Murray.

Snowy Owl

Early 10-12 Hennepin CH; 10-12 Carver MM; 10-18 Clay FMAS; 9 additional reports from Duluth, Marshall, Aitkin, Mille Lacs, Clearwater.

Hawk Owl

11-17 Cotton, St. Louis (3) G. Flaim.

Barred Owl

Reported from Itasca, Marshall, Clay, Le Sueur.

Great Gray Owl

9-18 Duluth 1 shot fide JG; 10-19 Roselake, St. Louis E. Spencer; 11-25, 26 Kelliher, Beltrami G. Borud.

The Loon**Long-eared Owl**

10-11, 11-4 Duluth JG.

Short-eared Owl

8-10 Aitkin KE, ES; 9-22 Duluth JG; 10-22 Marshall AR.

Saw-whet Owl

10-10 Duluth MMC; 10-17 Hubbard DM; also about 300 banded by Dave Evans at Hawk Ridge.

Whip-poor-will

9-12 Houston FL; 9-21 Duluth (netted by Dave Evans).

Common Nighthawk

Late north 9-3 Clay FMAS; 9-14 Duluth JG; late south 9-24 Houston FL; 9-25 Goodhue LF; 9-26 Hennepin OJ; early November Murray AD (more details needed).

Chimney Swift

Late north 9-8 Clay KBZ; late south 9-13 Le Sueur GR; 9-17 Washington WKE; 9-18 Hennepin VL.

Ruby-throated Hummingbird

Late north 9-15 Itasca MS; 9-19 Duluth JG; late south 9-17 Cottonwood LF; 10-5 Rock KE.

RUFIOUS HUMMINGBIRD

8-4 Itasca Mrs. Elizabeth Wachserger.

Belted Kingfisher

Late north 10-13 Itasca MS; 10-19 Aitkin JG; 10-25 Marshall AR.

Common Flicker

Late north 10-15 Marshall AR; 10-25 Itasca MS; 10-28 Duluth JG.

Pileated Woodpecker

Reported from Itasca, St. Louis, Mille Lacs, Polk, Morrison, Hubbard, Le Sueur, Pine, Wright, Lake of the Woods, Lake, Wabasha, Hennepin, and Rice Counties.

Red-bellied Woodpecker

Reported from Carver, Hennepin, Le Sueur, Wabasha, Cottonwood, Dakota, Wright, Rice.

Red-headed Woodpecker

Late north 9-19 Clay LCF; late west 10-3 Murray AD.

Yellow-bellied Sapsucker

Late north 10-7 Hubbard HF; 10-8 Duluth JG; 10-24 Crow Wing EC; late south 10-3 Stevens RBJ; 10-5 Cottonwood LF, Rock KE.

Black-backed Three-toed Woodpecker

9-15 to 10-25 Duluth (11) various observers; 9-22 Lake (6) RBJ, PE; 10-5 Pine PZ; 10-19 Aitkin JB; 10-23 to 11-14 Crow Wing (2) EC; 11-9 Mille Lacs MI.

Northern Three-toed Woodpecker

10-11 to 11-14 Crow Wing (up to 7) EC; 10-12 Duluth Dave Evans; 10-15 Duluth JG; 11-30 Clearwater LCF.

Eastern Kingbird

Late north 9-12 Duluth JG; 9-13 Beltrami MS; late south 9-15 Le Sueur GR; 10-1 Hennepin VL.

Western Kingbird

All reports 8-17 Rock RBJ; 8-19 Murray AD; 8-21 Clay LCF.

Great Crested Flycatcher

Late north 9-3 Marshall AR; late south 9-8 Murray AD, Wabasha WDM; 9-9 Olmsted JF; 9-11 Hennepin ES.

Eastern Phoebe

Late north 9-14 Crow Wing, Mille Lacs RBJ; 9-15 Marshall AR; late south 10-4 Meeker RBJ; 10-5 Wabasha WDM; 10-16 Hennepin VL.

Yellow-bellied Flycatcher

Late north 8-24 Duluth MMC, Koochiching DB; late south 8-29 Wright ES; 9-2, 9-15 Cottonwood LF.

Alder Flycatcher

8-24, 9-14 Itasca DB.

Willow Flycatcher

9-12 Morrison LSR.

Least Flycatcher

9-11 Marshall AR; 9-21 Lake DB; late south 9-9 Olmsted JF; 9-28 Hennepin CH.

Eastern Wood Pewee

Late north 9-6 Marshall AR; 9-15 Clay LCF; late 9-15 Hennepin VL, Wright ES; 9-27 Cottonwood LF.

Olive-sided Flycatcher

Late north 9-2 Cook DB; 9-14 Morrison, Crow Wing RBJ; late south 9-11 Hennepin VL, Cottonwood LF; 9-13 Hennepin WKE.

Horned Lark

Late north 10-10 Marshall AR; 11-6 Norman, Polk KBZ; 11-13 Duluth JG.

Tree Swallow

Late north 9-30 Aitkin JB; late south 10-24 Le Sueur GR; 10-26 Wright ES.

Bank Swallow

Late 9-4 Marshall AR; 9-7 Freeborn DG; 9-20 Ottertail KBZ.

Rough-winged Swallow

Late 9-29 Wright ES; 10-7 Freeborn DG; 10-11 Hennepin VL.

Barn Swallow

Late north 10-8 Marshall AR; 11-2 Cook RBJ, PE; late south 10-24 Le Sueur GR; 10-19 Wabasha WDM.

Cliff Swallow

9-7 Aitkin (1000) JB; 9-19 Marshall AR.

Purple Martin

Late north 9-14 Mille Lacs MI, Duluth JG, Clay KBZ; late south 9-15 Cottonwood LF, Wabasha WDM.

Gray Jay

Reported from Itasca, Cook, St. Louis, Lake, Lake of the Woods, Koochiching, and 11-7 Carlos Avery, Chicago Dr. Tordoff (2).

Black-billed Magpie

Early, late September Marshall AR; 10-17 Hubbard DM; also reported from Mille Lacs, Aitkin, Polk, Becker, Duluth, Wilkin, Roseau, and 11-21 Hennepin RBJ, KG.

Common Raven

Reported from St. Louis, Itasca, Marshall, Hubbard, Lake, Pine, Roseau, Lake of the Woods, Beltrami, Cook and 10-26 Hennepin OJ (call heard and was seen with Common Crows).

Boreal Chickadee

9-2 Cook DB; 10-11 to 11-5 Duluth

(7) JG, MMC; 10-27 Itasca DB; 11-6 Sax-Zim, St. Louis (14) JG; 11-22 Lake RBJ.

Tufted Titmouse

11-19 Hennepin VL only report this fall this bird seems to be decreasing in numbers.

Red-breasted Nuthatch

Early south 9-4 Hennepin ES; 9-11 Ramsey B. Saunders; 9-16 Murray AD.

Brown Creeper

Early south 9-12 Lac Qui Parle AFE; 9-21 Cottonwood LF; late north 11-1 Hubbard DM; 11-15 Itasca MS; 11-26 Hubbard HF.

House Wren

Late north 10-5 Clay LCF; 10-15 Clay LCF; late south 10-4 Meeker RBJ; 10-5 Rock KE; 10-14 Murray AD.

Winter Wren

Early south 9-21 Hennepin BH; 9-30 Rock KE, Washington EC; late north 10-12 Clay JB; 10-22 Duluth JG; late south 10-20 Jackson LR; 10-22 Hennepin VL; 10-26 Rock KE.

ROCK WREN

8-23 Pipestone KE.

Long-billed Marsh Wren

Late north 9-3 Itasca MS; to late September Marshall AR; late south 9-15 Rock KE; 9-22 Hennepin CH; 10-4 Pope RBJ.

Short-billed Marsh Wren

Late south 9-15 Rock KE; 9-15 Hennepin OJ.

Mockingbird

9-15 Duluth J. Telfer; 9-25 Cottonwood LF.

Gray Catbird

Late north 9-26 Morrison LSR; 10-29 Duluth MMC; late south 10-5 Rock KE; 10-6 Freeborn DG; 10-8 Murray AD.

Brown Thrasher

9-29 Rock KE; 10-8 Murray AD; 11-1 Hennepin VL; no late dates north.

Varied Thrush

9-26 Hennepin N. H. Lasley (good details).

American Robin

Late north 11-6 Polk KBZ; Duluth JG; 11-8 Marshall AR; late south 11-16 Lac Qui Parle AFE, Rock KE; 11-29 Cottonwood LF.

Wood Thrush

Late 9-26 Morrison LSR; 10-13 Hennepin VL.

Hermit Thrush

Late north 10-6 Marshall AR; 10-10 Duluth JG; late south 10-16 Murray AD; 10-30 Hennepin ES.

Swainson's Thrush

Late north 9-18 Beltrami MS, 10-3 Duluth JG; late south 10-9 Hennepin WKE; 10-13 Cottonwood LF.

Gray-cheeked Thrush

Only reports 10-10 Duluth JG; 10-13 Hennepin VL.

Veery

Late north 9-20 Duluth DB; 9-21 Lake GC; 10-12 Mille Lacs MI; only report south 10-2 Cottonwood LF.

Eastern Bluebird

Late north 10-19 Aitkin JG; 10-24 St. Louis C. Frink; late south 10-20 Lac Qui Parle AFE, Rock KE; 10-24 Wabasha WDM.

Golden-crowned Kinglet

Early south 10-1 Ramsey EM; late north 11-11 Marshall AR; 11-14 Crow Wing EC.

Ruby-crowned Kinglet

Early south 9-2 Hennepin CCS; late north 10-20 Marshall AR; 10-25 Duluth JG; late south 11-11 Cottonwood LF; 11-15 Wabasha WDM; 11-16 Le Sueur GR.

Water Pipit

Early 9-19 Mille Lacs MI, Duluth JG; late 10-4 Lake JG; 10-16 Hennepin OJ; 10-20 Rock KE; peak 9-29 Duluth LP (200).

Sprague's Pipit

8-3 Clay RBJ; 10-13 Clay (3) JB; 10-16 Clay KBZ (1); the last two observations were at the Moorhead Sewage Lagoons.

Bohemian Waxwing

11-2 Mille Lacs MI; 11-12 Duluth MMC; 11-9 Koochiching KE; 11-9 Cook ES 11-14 Marshall (35) AR.

Cedar Waxwing

Reported from 21 counties.

Northern Shrike

Early 10-12 Duluth fide JG; 10-13 Rock KE; 10-19 Lac Qui Parle AFE; also report from Hennepin, Stearns, Wabasha, Big Stone, Itasca, Marshall and St. Louis.

Loggerhead Shrike

Late 8-3 Clay RBJ; 8-23 Rock KE; 11-14 Duluth MMC.

Bell's Vireo

9-15 Blue Mounds State Park, Rock Co. KE.

Yellow-throated Vireo

Late north Morrison LSR; 9-8 Marshall AR; late south 9-7 Winona FL; 9-11 Hennepin ES.

Solitary Vireo

Late north 9-29 Duluth DM; 10-6 Crow Wing JB; late south 9-28 Cottonwood LF, Rock KE; 9-29 Hennepin PZ; 10-3 Stevens RBJ.

Red-eyed Vireo

Late north 9-15 Clay LCF; Itasca MS; 9-29 Duluth DM; late south 9-9 Olmsted JF; 10-26 Hennepin CH.

Philadelphia Vireo

Early south 8-29 Wright ES; late north 9-21 St. Louis RBJ; 9-29 Duluth DM; late south 9-24 Hennepin ES; 10-4 Cottonwood LF.

Warbling Vireo

Late north 9-11 Marshall AR; late south 9-9 Murray AD, Lac Qui Parle AFE; 9-24 Hennepin FN.

Black-and-white Warbler

Late north 9-12 Crow Wing JB. Marshall AR; 9-20 Duluth DB; late south 9-30 Cottonwood LF; 10-14 Freeborn DG.

Golden-winged Warbler

8-21 Marshall AR; 9-5 Morrison LSR; late south 9-8 Hennepin VL, Anoka GC.

Tennessee Warbler

Early south 8-24 Le Sueur RBJ; late north 9-26 Morrison LSR; 10-9 Duluth JG; late south 9-25 Cottonwood LF; 10-5 Rock KE; 10-13 Hennepin VL.

Orange-crowned Warbler

Early south 8-26 Hennepin WKE; 8-27 Cottonwood LF; late north 10-13 Marshall AR; 10-16 Clay FMAS; late south 10-27 Hennepin VL; 11-3 Carver JAB.

Nashville Warbler

Early south 8-20 Hennepin VL; late north 10-13 Clay LCF; 10-22 Duluth JG; late south 10-13 Rock KE; 10-18 Hennepin ES; 10-27 Lac Qui Parle AFE.

Northern Parula

Late north 9-22 Duluth KE; late south 9-24 Hennepin FN; 9-29 Ramsey GC.

Yellow Warbler

Late north 9-10 Clay FMAS; 9-13 Marshall AR; late south and only report 9-11 Hennepin ES.

Magnolia Warbler

Early south 8-28 Hennepin VL; late north 10-3 Duluth JG; late south 9-29 Rock KE; 10-6 Lac Qui Parle AFE; 10-13 Murray AD; note that all late dates are west.

Cape May Warbler

Late north 10-13 Marshall AR; 10-16 Duluth JG; 11-2 Lake RBJ; only report south 9-11, 12 Hennepin ES.

Black-throated Blue Warbler

9-8 Hennepin OJ; 10-3 Wilkin RBJ.

Yellow-rumped Warbler

Late north 11-2 St. Louis RBJ; 11-15 Crow Wing EC; 10-17 Cottonwood LF; 10-23 Hennepin WKE; 11-18 into Dec. Dakota JAB.

Black-throated Green Warbler

Early south 9-2 Ramsey GC; 9-8 Hennepin OJ; late north 9-19 Crow Wing JB; 9-21 Duluth GC; late south 10-5 Rock KE; 11-1 Hennepin VL.

Blackburnian Warbler

Early south 8-24 Le Sueur RBJ; 8-31

Hennepin WKE; late north 9-15 Clay LCF; late south 10-12 Murray AD.

Chestnut-sided Warbler

Late north 9-8 Clay FMAS; 9-20 Duluth JG, RBJ; late south 9-13 Hennepin WKE; 9-15 Rock KE.

Bay-breasted Warbler

Late north 9-28 Mille Lacs MI; 10-4 Clay LCF; late south 9-19 Wright ES; 9-22 Hennepin WKE, Olmsted FKS.

Blackpoll Warbler

Late north 9-13 Marshall AR; 9-22 Duluth KE; late south 9-19 Wright ES.

Pine Warbler

9-17,26 Hennepin VL; 10-8 Duluth JG.

Palm Warbler

Late north 10-12 Mille Lacs MI; 10-14 Duluth JG; late south 10-13 Cottonwood LF; 10-23 Hennepin PF; 11-3 Ramsey JAB.

Ovenbird

Late north 9-26 Morrison LSR; 9-29 Duluth DM; 10-15 Duluth JG; 10-1 Hennepin VL; 10-28 Lac Qui Parle AFE.

Northern Waterthrush

Early south 8-14 Wright ES; late north 9-13 Marshall AR; 9-22 Carlton RBJ; late south 9-15 Wright ES; 9-18 Hennepin VL.

Louisiana Waterthrush

8-12 Chisago (2) KE; 8-23 Chisago RBJ; 8-28 Hennepin VL.

Connecticut Warbler

5 reports 8-9,11 St. Louis WDM; 8-12 Duluth MMC; 9-2 Oterrtail KBZ; 9-4 Duluth JG; 10-3 Hennepin WKE (details were submitted).

Mourning Warbler

Late north 9-2 Cook DB; 10-3 Duluth JG; late south 9-2 Rock KE; 10-11 Hennepin WKE.

Common Yellowthroat

Late north 10-6 Marshall AR; 10-12 Mille Lacs MI; late south 10-5 Rock KE; 10-12 Cottonwood LF; 10-13 Rock KE.

Wilson's Warbler

Early south 8-19 Stearns NH; 8-23 Rock KE; early north 8-15 Becker KBZ; 8-17 Clay LCF; late north 9-4 Morrison LSR; 9-10 Crow Wing JB; late south 9-28 Rock KE; 10-14 Le Sueur GR; 11-9 Lyon PE.

Canada Warbler

Early south 8-23 Rock KE; 8-24 Le Sueur RBJ; late north 9-5 Morrison LSR; 9-10 Duluth JG; late south 9-8 Murray AD; 9-15 Hennepin PF.

American Redstart

Late north 9-24 Clay LCF; 10-10 Duluth JG; 10-12 Marshall AR; late south 9-24 Hennepin FN, PF.

Bobolink

Late north 8-29 Marshall AR; late south 9-7 Freeborn, Steele RBJ.

Eastern Meadowlark

Late north Mille Lacs MI; late south 10-14 Hennepin CH; 10-20 Wright BH.

Western Meadowlark

Late north 11-6 Polk KBZ; 11-7 Marshall AR; late south 10-20 Hennepin OJ; 10-26 Rock KE.

Yellow-headed Blackbird

Late north 9-9 Cook W. Breckenridge; 11-5 Marshall AR; late south 9-15 Hennepin VL 9-29 Cottonwood LF.

Red-winged Blackbird

Late north 11-6 Polk KBZ; 11-11 Marshall AR; late south 11-20 Cottonwood LF; 11-23 Ramsey GC; 11-28 Wabasha WDM.

Orchard Oriole

8-17 Murray KE, RBJ, PE; 8-23 Rock KE.

Northern Oriole

Late north 9-15 Itasca MS; 9-17 Crow Wing JB; late south 9-8 Lac Qui Parle AFE; 9-11 Cottonwood LF; 9-13 Hennepin WKE.

Rusty Blackbird

Early south 9-16 Stearns MC; 9-28 Hennepin VL; late north 11-10 Oterrtail LCF; Crow Wing JB; late south 11-3 Hennepin KG; 11-16 Rock KE.

Brewer's Blackbird

Late north 9-23 Itasca MS; 11-6 Polk KBZ; late south 10-19 Le Sueur GR; 10-20 Ramsey GC; 11-2 Hennepin VL.

Common Grackle

Late north 11-17 Duluth JG; 11-28 Morrison LSR; late south 11-29 Cottonwood LF; 11-30 Wabasha WDM; peak 800,000-1,000,000 Palmer Lake Slough Hennepin OJ.

Brown-headed Cowbird

Late north 11-6 Polk KBZ; late south 10-5 Hennepin CCS; 10-19 Big Stone RBJ; 10-20 Ramsey GC.

Scarlet Tanager

Late north 9-10 Crow Wing JB; 9-26 Morrison LSR; late south 9-2 Rock KE; 10-9,10 Hennepin WKE.

Cardinal

Reports north 11-10 Clay FMAS; November Duluth JG, MMC.

Rose-breasted Grosbeak

Late north 9-21 Carlton PZ; 11-5 Duluth JG; late south 9-14 Lac Qui Parle AFE; 9-28 Hennepin CH; 11-10 to 14 Ramsey Miss L. Gilfillan.

Blue Grosbeak

8-17 (5) KE, RBJ, PE, 8-23 to 9-15 (2) KE, 9-29 & 10-5 (1 imm.) KE. all reports from Blue Mounds State Park in Rock County.

Indigo Bunting

Late north 9-14 Crow Wing RBJ; late south 8-22 Wabasha WDM; 8-24 Kandiyohi BH.

Dickcissel

8-3 Clay, Wilkin RBJ.

Evening Grosbeak

South reports from Olmsted, Stearns, Hennepin, Wabasha, and Cottonwood counties.

Purple Finch

Reported from 14 counties.

Pine Grosbeak

Early north 10-22 Duluth P. B. Hofs-lund; 10-27 Itasca DB; also reported Lake, Cook, Becker, and Lake of the Woods Counties.

Common Redpoll

Early north 10-20 Marshall AR; 10-20 Duluth GC; early south 11-4 Dakota Mrs. R. Buelow; 11-26 Hennepin ES.

Pine Siskin

Early south 10-16 Hennepin VL; 10-17 Lac Qui Parle AFE; 11-21 Wabasha WDM; few reports south this fall.

American Goldfinch

Late north 11-16 Pine GC; 11-17 Clay FMAS; 11-24 Mille Lacs MI.

Red Crossbill

8-13 Hubbard FL; 9-3 Stearns MC; 9-1 Cook DB; 9-22 Duluth JAB; 10-28 Duluth (50+) MMC; all reports.

White-winged Crossbill

9-1 Cook DB; 10-25 to 11-22 5 reports from Duluth; 11-2 Lake RBJ; all reports.

Rufous-sided Towhee

9-18 Beltrami MS; 9-26 Morrison LSR; 10-12 Pine FL; 10-3,10 Rock (2 "spotted" subspecies) KE.

Savannah Sparrow

Late north 10-8 Duluth JG; 10-16 Clay KBZ; late south 10-12 Hennepin CCS; 10-13 Olmsted JF.

Grasshopper Sparrow

8-3 Wilkin RBJ; only report.

Le Conte's Sparrow

8-3 Wilkin RBJ; 8-10 St. Louis MMC; 8-11 Aitkin ES.

Vesper Sparrow

Late north 10-7 Marshall AR; 10-15 Clay FMAS; late south 10-5 Rock KE; 10-9 Freeborn DG.

BLACK-THROATED SPARROW

Found by JG, RBJ 9-20 Stoney Point St. Louis Co. — seen by many 9-21 to 9-23.

Dark-eyed Junco

Late north 11-30 Morrison LSR, Duluth JG; early south 9-15 Hennepin OJ; 9-21 Ramsey DM.

Tree Sparrow

Early north 9-20 Clay FMAS; 9-22 St. Louis JAB; early south 9-29 Rock KE; 10-8 Murray AD; late north 11-9 Duluth MMC; 11-10 Ottertail LCF.

Chipping Sparrow

Late north 10-6 Duluth JG; 10-11 Hubbard HF; 10-12 Morrison RBJ; late south 9-8 Le Sueur GR; 10-14 Hennepin VL.

Clay-colored Sparrow

9-28 Rock KE; 10-6 Duluth JG; 10-14 Cottonwood LF; 10-19 Big Stone, Swift RBJ, PE.

BREWER'S SPARROW

Possible sighting 9-28 Rock KE.

Field Sparrow

10-7 Freeborn DG; 10-15 Wabasha WDM; 10-20 Hennepin OJ.

Harris' Sparrow

Early 9-27 Murray AD; 9-17 Marshall AR; 9-15 Clay KBZ; late north 10-24 Clay KBZ; 11-8 Clay LCF; late south 11-7 Murray AD; 11-9 Pope RBJ; 11-29 Anoka JAB.

White-crowned Sparrow

Early north 9-13 Duluth JG; 9-22 Clay LCF; early south 9-24 Hennepin ES; 9-28 Murray AD; late north 10-14 Duluth JG; 10-18 Aitkin LP; late south 10-13 Rock KE, Murray AD.

White-throated Sparrow

Late north 11-11 Duluth JG; 11-17 Clay LCF; late south 11-23 Olmsted JF; 11-28 Stearns MC.

Fox Sparrow

Early north 9-21 St. Louis RBJ; early south 9-8 Hennepin OJ; 9-29 Ram-

sey GC, Carver PZ; late north 10-18 Marshall AR; 10-30 Duluth JG; late south 11-3 Houston FL; 11-10 Carver RBJ; 11-16 Hennepin PF.

Lincoln's Sparrow

Early north 8-31 Marshall AR; 9-10 Duluth JG; early south 9-7 Rock KE 9-13 Hennepin KG; late north 10-6 Clay LCF; 10-10 Duluth JG; 10-11 St. Louis JAB; late south 10-9 Hennepin VL; 10-26 Rock KE.

Swamp Sparrow

Late north 10-27 Marshall AR; 11-9 St. Louis ES; late south 10-25 Stearns MC; 11-3 Hennepin ES.

Song Sparrow

Late north 10-12 Marshall AR; 10-13 Clay KBZ, Duluth JG; late south 10-27 Dakota MW; 10-29 Cottonwood LF; 11-3 Hennepin KG.

Lapland Longspur

Early 9-14 Duluth JG; 9-30 Marshall AR; late north 11-2 Duluth JG; 11-6 Polk KBZ.

Smith's Longspur

9-21 Duluth RBJ, PE.

Chestnut-collared Longspur

8-3 Clay (30) RBJ.

Snow Bunting

Early north 10-6 Marshall AR; 10-13 Crow Wing JB; late south 10-19 Lac Qui Parle.

CONTRIBUTORS

James A. Baumhofer, JAB
Jo Blanich, JB
Don Bolduc, DB
Elizabeth Campbell, EC
Marjorie M. Carr, MMC
Gary Casper, GC
Mable Coyne, MC
Mr. Arnold N. DeKam, AD
Whitney and Karen Eastman, WKE
K. R. Eckert, KE
Alpha and Frederick Eckhardt, AFE
Paul Egeland, PE
Laurence and Carol Falk, LCF
Mr. L. A. Feil, LF
Herbert J. Fisher, HF
Joan Fowler, JF
Pepper Fuller, PF
Janet C. Green, JG
Doris Gregerson, DG
Karol Gresser, KG
N. M. Hiemenz, NH
Bruce A. Hitman, BH
Charles L. Horn Jr., CH
M. Ivanovs, MI
Robert B. Janssen, RBJ
Oscar L. Johnson, OJ
Mrs. E. W. Joul, EJ
Violet Lender, VL
F. L. Leshner, FL
Wynn and Don Mahle, WDM
Marlyn Mauritz, MM
Dennis Meyer, DM
Fran Nubel, FN
Lloyd Paynter, LP
Agassiz National Wildlife Refuge
(Sarah A. Vasse), AR
Gary Ritchison, GR
Lester Rupp, LR
Orwin A. Rustad, OR
L. S. Ryan, LSR
Madeline Schuller, MS
Charles and Connie Sherck, CCS
Fargo-Moorhead Audubon
Society, FMAS
Mary Sommers, MSo
Evelyn T. Stanley, ES
Forest and Kirsten Strnad, FKS
Mark Wright, MW
Kevin and Barry Zimmer, KBZ
Paul A. Zucker, PZ

**12 E. 67th Street
Richfield, Minnesota 55422**

notes of interest

A LEAST TERN AT MARSHALL — On Sunday, May 12, 1974, while making one of my frequent checks of the Marshall Sewage Lagoons, I saw a light-colored tern sitting on a discharge pipe about fifty yards from the bank. Perched beside it were a number of Black Terns, and farther away along the pipe several Forster's Terns as well as assorted shore birds. The light-colored tern had a black crown and white forehead and was noticeably smaller than the Black Tern immediately beside it. On Monday, May 13, I again visited the lagoons in company with Paul Egeland. The bird was in the same spot and in company with Black Terns for comparison. We both observed the bird with 8x40 glasses and in good light. I am familiar with the Least Tern from locations farther south and from the Mediterranean. We believe that this bird could only have been a Least Tern. **Henry C. Kyllingstad, 205 6th Street So., Marshall, Minnesota 56258.**

YELLOW-BREASTED CHAT AT DULUTH — There is an alder thicket, about a block from the Duluth International Airport, where many warblers feed during migration. In June and July, it is possible to find Golden-winged Warblers and Soras nesting there. On the morning of May 29, 1974, I was driving slowly along this road, when I noticed a bright yellow bird, about two feet from the ground. It looked like a Common Yellowthroat with white spectacles. The back was dark olive green, it had no wingbars, and the breast and throat were the most brilliant yellow I've ever seen. A Yellow-throated Vireo flew down, and then the difference in size became apparent. The larger bird had white, instead of yellow eye-rings, a black face, and that yellow breast. The comparison was ideal, and I knew I had seen my first Yellow-breasted Chat. I checked with *Birds of North America* for complete verification, but when I looked back towards the woods, both birds were gone. After looking at small birds all morning, there could be no mistaking this bird, the largest of our warblers. **Marjorie M. Carr, 1834 Vermillion Road, Duluth, Minnesota 55803.**

Editor's Note: This was not only Marj Carr's first chat it was the first time this species has ever been recorded in the Duluth area and the northern part of the state. Records of the Yellow-breasted Chat in the past few years in Minnesota are most unusual. It appears to have disappeared from most of its regular range in the southeastern part of the state.

THREE-TOED WOODPECKER SIGHTINGS — On October 11, 1974 my husband and I drove from our cabin at Platte Lake, Crow Wing Co. to the store on Morrison Co. Hwy. 40 just south of Long Lake. I noticed a few blackbirds in the top of a tall, dead Tamarack tree in a small bog. We stopped to check on them and I could see a woodpecker at the top of the tree on the underside of a branch. It was a male Northern Three-toed Woodpecker. We watched him feeding for about ten minutes before he flew to a tree beyond. If I had not stopped to look at the blackbirds I would not have noticed him. The next day I went back to the area but could not find the bird or any

evidence of woodpecker workings except on the tree the bird had been in. On October 23, I looked for woodpeckers in a spruce-tamarack bog between Platte and Rock Lakes, Crow Wing Co. The area is about ten acres in extent. Most of the trees are dead but there are a few live white pines. I saw two female Northern three-toed and one male bird. I also saw one Black-backed Three-toed Woodpecker. The next day I went back to show by husband the birds, and found two Black-backs and one Northern. On November 1, Terry Savaloja was there and saw two male Northerns and five or six females and also one Black-back. On November 8, I found two Northern males and one female. The last day I saw the birds was November 14. Every time I was in the bog I saw Hairy Woodpeckers and Golden-crowned Kinglets. The woodpeckers have been seen by others each month thru the first of February. **Elizabeth Campbell, 5267 W. Bald Eagle Blvd., White Bear Lake, Minnesota 55110.**

FALL BELL'S VIREO — On September 15, 1974 I observed a singing Bell's Vireo at Blue Mounds State Park in Rock Co. The vireo was in a stream-side thicket just below the dam at the northeast corner of the park. The bird first attracted my attention when it sang about 15 feet away from where I was standing. I immediately recognized the song (which was given only once) and after a brief search located the vireo. Since I was looking into the sun, all I could see in the way of field marks were two distinct wingbars and an indistinct eye-ring. While these visual field marks were not enough to identify the bird, I had no doubt about the song which I am very familiar with. **Kim Eckert, Box 47, Garretson, South Dakota 57030.**

SURF SCOTERS AT MARSHALL SEWAGE LAGOONS — On Saturday morning, October 20, 1973, I went to see if there were any late shorebirds and to look over the many ducks that concentrate at the Marshall Sewage Lagoons in the fall. I first drove around the pond lying the farthest northeast. Part way around four White-winged Scoters were swimming very close to shore. I had seen White-winged Scoters several times here, so was not too surprised. I then drove across the railroad track and stopped and scanned the largest pond with my telescope. At the far southwest corner within ten yards of shore I saw two birds that were diving for food. One of these caught my attention because it was black with two large white patches on its head. At the same time two young boys with shot guns were walking down the dike road toward these birds. The two ducks flew before the boys got in range. I followed them in flight and noted their all black plumage with no wing markings. They flew to the northeast pond and joined the four White-winged Scoters. I was able to get much closer and when I focused my telescope on them I could see they were a pair of Surf Scoters with the male still in breeding plumage with a white patch on the forehead and another one on the back of the head. The female had only whitish spots on the cheek area of her head. They were both smaller than the White-winged Scoters and curiously enough they held their tails up much like a Ruddy Duck although their tails were quit stubby. This was an exciting find since I believe it is the first record for the southwest area of Minnesota. These birds were seen for several days by Henry Kyllingstad and Kevin Martell of Marshall. **Paul Egeland, 12 East 67th Street, Richfield, Minnesota 55422.**

LATE CATTLE EGRETS — On October 30, 1974, 11 Cattle Egrets were observed in a plowed field in Section 6, Otrey Township in Big Stone County. The egrets were approximately 100 to 150 feet from the road and did not

fly when I stopped to observe using 7x35mm Bushnell binoculars. As I drove by, I had thought the birds to be large gulls, but, the upright standing position of the birds made me stop to observe more closely. All birds had yellow bills and black legs which according to **Birds of North America**, indicate immature birds. Most of the area's water was frozen at this time so the occurrence of the egrets at this late date seemed unusual. **Dennis W. Strom, Assistant Manager, Big Stone National Wildlife Refuge, 25 NW 2nd Street, Ortonville, Minnesota 56278.**

ROCK WREN SEEN AT PIPESTONE — Pipestone National Monument is a small but excellent area of virgin prairie, thick riparian woodlands, Sioux quartzite outcroppings and pipestone quarries. I made several birding trips here in 1974, usually checking for rarities that might be attracted to the woods along the monument's stream (one of the very few such wooded spots in southwest Minnesota). On August 23, 1974 I also took the trail leading south from the main nature trail along a row of pipestone quarries. There is a row of trees and brush along this trail that is good for birds, and it was here three months earlier that I had found a stray Bell's Vireo. Just beyond the vireo spot I noticed a movement in some brush-covered rocks along the top of a Pipestone quarry about 20 feet from the trail. For several seconds nothing came into view, but finally with my binoculars I could see a non-descript small gray bird with its tail cocked over its back come into view. I could see it was a wren, but it was too large and gray to be one of the many House Wrens which breed in the area. During the few seconds the bird was in view I saw a white eye-line, very faint streaks on the breast, and as it disappeared into the brush the wren fanned out its broad tail to reveal large buffy patches on the corners — the diagnostic Rock Wren field mark. I tried to follow the bird and to "pish" it out of the brush but I could not locate it again. I have seen Rock Wrens many times out West, and they all looked as this one did: large, gray, very plain with no obvious field marks, and crawling around on rocks. I would guess that this was a post-breeding wanderer from western South Dakota (the nearest point in their range), and that Rock Wrens occasionally stray to western Minnesota more than the few state records suggest. As far as I can determine from the **Loon** this is only the fifth state record, the last sighting being on October 29, 1966 at Grand Marais. **Kim Eckert, Box 47, Garretson, South Dakota 57030.**

PROBABLE THAYER'S GULL AT BLACK DOG — On November 23, 1974, Ray Glassel, Paul Egeland, Dick Ruhme, and I had been birding in Dakota County. On the way home we saw a large flock of gulls circling over the Burnsville dump just west of the Black Dog Power Plant. We entered the dump and we estimated approximately 500 Ring-billed Gulls, and maybe a dozen or so Herring Gulls, mostly immatures, were circling over and sitting in the area. From one small group of about 50 gulls that flushed, we noted one gull that appeared to be a Glaucous Gull, at least it looked very different and quite white overall and then we noticed it was smaller than a Glaucous. The bird mixed in with the other gulls and then landed a distance away. We found it again sitting among a group of Ring-bills. The wing tips, when folded, appeared very light. The bird took flight and circled directly over our heads. Here is a description of the bird from notes taken at the time of observation: size larger than a Ring-billed Gull, about Herring Gull size, bill, black, overall plumage, light buffy brown. Tail had a diffused brownish-band about 1" to 1½" wide. The primaries were light underneath, from the top they were a darker brown on the outermost two feathers — a buffy

brown a little darker than overall plumage color. The bird circled over us for several minutes and then disappeared. The bird looked most like an Iceland Gull, but, we identified it as a probable first year Thayer's Gull. It closely resembled the photograph (Fig. 4) of a bird seen in the Duluth City Dump on February 9, 1972, contained in Jan Green's article on the Thayer's Gull (*The Loon* 46:136-142). The bird was seen during the next week by Bill Pieper who also identified it as a Thayer's Gull. It was not seen after December 1. **Robert B. Janssen, 14321 Prince Place, Minnetonka, Minnesota 55343.**

WINTER RECORD FOR LOGGERHEAD SHRIKE IN CARVER COUNTY —

On January 10, 1975 while birding near the Lowry Nature Center in Carver County, I observed a bird I believed to have been a Loggerhead Shrike. When I first saw it perched on top a tall Elm tree I thought it was a shrike, but, something about the posture made me stop and put the glasses on it. It proved to be a shrike, but, appeared different than a Northern so I walked closer for a better look. When I got to about 150 feet of the tree I noted the breast appeared white rather than grayish and the tail was hanging straight down rather than cocked at an angle. It then flew to some power lines along the road where I was parked. I returned to my car and was able to drive and park almost under it. When the bird looked down I could see the black mask extended over the base of the bill. I was never sure of the color of the lower mandible, but, it appeared as dark as the upper one. It then flew back to the tree where I first saw it and perched about halfway near the trunk rather than on the top. Several times it flew to the ground, but, always returned to the middle of the tree. I watched it about 10 minutes before it flew from sight. Although it was snowing at the time the light conditions were adequate to see the marks I described. Binoculars used were 9x35 B&L. The reasons I believe it was a Loggerhead Shrike: (1) The clear white belly — although it is not always possible to see the barring on a Northern, it nonetheless gives a gray look to the belly. (2) The black mask extending over the bill. (3) The tail appeared short and often hung straight down. (4) The bird didn't always perch in a conspicuous place, that is the top of the tree. I do not know if these last two reasons are good field marks, but, I have never noted these characteristics in a Northern. On talking to Kathy Heidel of the Lowry Nature Center, she told me that she was sure she saw a Loggerhead Shrike on December 13, 1974. The bird was perched on a telephone wire by the Center. At first glance she thought it was a bluebird because of its posture. She was able to observe it through a scope at about 100 feet. The marks she described to me were the same as on the bird I saw, in addition she was able to see that the bill was all black. Although there are few winter records for the Loggerhead Shrike for Minnesota maybe we should not pass off all the shrikes we see as Northern, but rather give them a good second look. **Raymond Glassel, 8219 Wentworth Avenue South, Bloomington, Minnesota 55420.**

ONE-FOOTED CHICKADEE SURVIVES TWO MINNESOTA WINTERS —

On November 14, 1972, I captured an AHY (after hatch year) Black-capped Chickadee in my mist net in Carver Park Reserve, Carver County, Minnesota. The bird was banded with band number 120-96-648 and released. Three days later, November 17, 1972, the bird was again found in my mist net but this time it was injured. Its right leg was broken and the foot was hanging from the leg at an abnormal angle. Little bleeding was observed. I did not repair the leg before releasing the chickadee, which seemed very perky despite the injury. January 3, 1973, was a fairly warm day so I again set up my mist

nets. Believe it or not, in the afternoon #648 chickadee again hit my net. Its right foot was hanging on by a dried, thread-like tendon but was useless. The bird was bright-eyed and did not seem to be thin. I was tempted to cut the useless foot off but decided to let nature take care of itself. The bird was released in OK condition. On September 20, 1973, #648 managed to get caught in my mist net again! Great! The bird had survived a winter and a summer. On examining the bird's right leg, I found the foot to be gone and the stump in perfectly healed condition. I released the bird — OK.

On April 9, 1974, this same perky chickadee was seen eating in a window feeder about 30 inches away from an observer at the Nature Center in Carver Park. Its stump seemed OK and the bird stayed a little while before flying away. It had survived its second Minnesota winter! The bird, if still alive, is at least three years old, maybe older. I hope this "cripple" keeps showing up for the next few years. **Kathlyn Heidel, Route 5, Box 73, Excelsior, Minnesota 55331.**

LOGGERHEAD SHRIKE IN WINTER — The spruce tree in our back yard is a haven for the small birds feeding on the goodies hanging from its branches. It is large enough for predator birds, and we've had many owls, hawks, and shrikes over the years. On February 6, 1974, Bill, our daughter Kathy, and I were having coffee, watching the chickadees, as they flew from one feeder to another. A shrike flew in, and landed about 10 feet from the window. We got a good look at the profile, noting the slaty-gray back, black wings, and dark mandibles. It turned toward us, showing the unbarred breast, and the "Lone Ranger" mask over the eyes. We have seen Loggerheads during migration, including one on November 4, 1974, but our winter shrikes have always been Northerns, so we identified this bird carefully. It sat for 10 seconds or so, too close for binoculars, and we all said Loggerhead at the same time. The chickadees scattered, of course, and the shrike was forced to find breakfast elsewhere. **Marjorie M. Carr, 1934 Vermillion Road, Duluth, Minnesota 55803.**

Editor's Note: There are few verified reports of the Loggerhead Shrike in Minnesota in winter. As birders become more proficient at identification and take more time to look at shrikes it would appear that the Loggerhead is a rare winter visitant in the state. Birders should take the time to carefully identify all shrikes and not assume that all winter shrikes are Northerns.

FIRST WINTER RECORD OF BLACK-AND-WHITE WARBLER FROM DULUTH AND MINNESOTA — On February 15, 1975 I received a phone call from Mrs. Jean Clark who lives in the Congdon Park area of Duluth. She described to me a bird she had just seen creeping up the tree trunk, fifteen feet outside her window. Her description was very detailed since she had seen the bird well and is very familiar with the normal winter birds. She did not know what the bird was, but from her description I was convinced that she had seen a female Black-and-white Warbler. The verbal details that she gave me are as follows: small bird that crept up the tree in a long spiral, probing in the bark like a creeper, but it was definitely stripped lengthwise on both the back and wings in grey and black and white (not brown like a creeper); breast was greyish white and face was also whitish except for an almond-shaped dark patch around the eye; bill was long and straight, not curved like a creeper or chunky like a finch; size seemed bigger than a creeper, more like a White-breasted Nuthatch. After I told her what I thought it had to be, she looked in the Robbins-Zim guide and agreed that her bird

looked like that, but she was somewhat hesitant to claim that she had seen a warbler in February in Duluth. However, on March 21, 1975 she saw it again on the same tree, this time with a Black-capped Chickadee. It was smaller than the chickadee and she was convinced that it was a Black-and-white Warbler. **Janet C. Green, 9773 N. Shore Dr., Duluth, Minnesota 55804.**

FIRST WINTER RECORD FOR THE PECTORAL SANDPIPER — A Pectoral Sandpiper was seen $\frac{1}{2}$ mile east of Cottonwood, Lyon County, at Sham Lake, while I was taking the Cottonwood Christmas Census on December 14, 1974. A small area of mudflat and open water is created by the flow of water from Cottonwood's sewage treatment facility. The sandpiper was seen there first by Henry Kyllingstad and then by myself. It was a medium sized shore bird with yellowish legs and a moderately long down curved bill. It had a scaly brown back, a white belly and a brown breast with a clear cut-off between the breast and belly. It appeared to be a healthy bird because it flew several times a couple hundred yards out over the frozen lake and then returned to the open water. The bird was not seen after the 14th. **Paul Egeland, 12 East 67th Street, Richfield, Minnesota 55423.**

ROSE-BREADED GROSBEAK IN WINTER — On January 24, 1975 my husband and I were on the way to Grand Marais to attend the MOU winter meeting. I stopped at Tofte at Mrs. Hoaglund's home to look for the Varied Thrush that had been at her feeder. It was snowing and about 30 degrees. There were Evening Grosbeaks feeding in the Mountain Ash trees in her yard. I was standing at the corner of her house looking at the bird feeder when a brown bird flew over my head from the direction of the Mountain Ash trees and into a tree near the feeder. As it flew I could see it was not an Evening Grosbeak and looked like a Rose-breasted Grosbeak. He flew again into a tree over the feeder and using my binoculars, 9x35, I could see it was a male Rose-breasted Grosbeak. A brown bird, dark brown wings, white wing bars, brown crown with buffy center stripe, light line over eye and dark patches on side of head. He had a pink breast. The bird ate a little snow from a branch but did not go to the feeder while I was there. When I left, after about ten minutes he was still in the same tree. Unfortunately Mrs. Hoaglund was not at home. We stopped again on Sunday but didn't find the bird. I wonder if he survived the snow storm that Friday night and Saturday. Mrs. Hoaglund had not seen the bird. Mr. Janssen says this is the second state winter record for the Rose-breast. **Elizabeth Campbell, 5267 W. Bald Eagle Blvd., White Bear Lake, Minnesota 55110.**

A WINTER OVENBIRD — On December 27, 1974, Ruth and I were walking along Forest Dale Road up the hill from Minnehaha Creek in Minneapolis and stopped to look at some birds, under a large spruce tree, that were picking up food from the ground. We saw juncoes and one cocky little Ovenbird. We stood about 25 feet from this bird and observed it well. On January 9, 1975, we again saw this bird in the back yard feeding station of a home on Forest Dale Road. Although we looked many times since, we have not seen it again. As January 10 and 11 were the days the severe blizzard occurred, we might assume the bird perished. However, trees are thick here and much brush and undergrowth. The place is very sheltered and food is put out by several of the residents there. Because of the density it is difficult to scout the whole area. So there is a possibility the bird may still be around. Description: First seen about 2 P.M. Temperature 30° — partly

cloudy. We used 8x30 Ziess binoculars. Watched for two or three minutes at about 25 feet. A small sparrow sized bird, plain olive-drab back and tail; white underparts, well marked with spotting and streaking's, a white eye ring; wide rusty brown streak over crown of head. Bird bobbed its tail as it fed. Both of us are familiar with Ovenbirds, as they pass through the creek area in the spring and fall, and often in rather late fall. **Violet Lender, 2817 Robbins Street, Minneapolis, Minnesota 55410.**

A BOREAL OWL ALONG THE GUNFLINT — On January 1, 1975, Sue Sack and I, were birding along the Gunflint Train, in Cook County. We sighted many Pine Grosbeaks and several Boreal Chickadees along the trail. At 12:30 P.M., I discovered a Black-backed Three-toed Woodpecker in a spruce bog we were snowshoeing. It was seen 6.6 miles north of the Nor'Wester Lodge or approximately 36.6 miles north of Grand Marais. However, our best find of the trip was the sighting of our first Boreal Owl. As we were heading back for Grand Marais, I noticed a small owl perched on the top of a five foot spruce tree. I then turned the car around and pulled up next to it. Sue, who was closer to the owl than I, rolled down her window and must have been within six feet of the bird at eye level. I read the description of the Boreal Owl from The Golden Field Guide's "Birds of North America," as Sue noted the distinguishing field marks with a pair of Bushnell 7x26 binoculars. However, the naked eye was used most often because we were so close to the owl. We noticed the dark edges of the facial disk, the light bill, and dark vertical eyebrows. The vertically barred chest was dark, but not as dark as the facial markings. We estimated the length to be at least ten inches. It was seen at 4:45 P.M., just a little after sunset. We did not get a picture because of the light situation. After about one minute the owl flew across the car and into the spruce on the other side of the road. I made an attempt to find it again but with no success. The sky had been clear all day with no wind, except for the early part of the morning. So we still had plenty of light to identify the owl, even after sunset. The exact location was 20.7 miles north from Grand Marais on the Gunflint Trail or 5.2 miles north of the South Brule River on the Gunflint. It was seen on the right hand side of the road going north, just on the outer edge of an extensive spruce bog. We later consulted Arthur C. Bent's "Birds of Prey" and the "Audubon Land Bird Guide" to confirm our sighting of the Boreal Owl. We made certain it wasn't a Saw-whet Owl and that we did not confuse it with the Hawk Owl. The Hawk Owl, we had seen the day before (12-31-74). We watched the Hawk Owl for 15 to 20 minutes before it flew away. We sighted the Hawk Owl two miles east of the Cascade River, on Highway 61. **Jeff Jepson, 8207 Upton Ave. So., Bloomington, Minnesota 55431.**

PRAIRIE FALCON IN YELLOW MEDICINE COUNTY — This bird was seen two miles northwest of Cottonwood, Minnesota in Yellow Medicine County, at 11:50 A.M. on December 14, 1974 while I was conducting the annual Cottonwood Christmas Census. The day was very foggy with a very light drizzle, with the temperature around 32°F. I was driving on a gravel township road about 15 m.p.h. when I saw a large hawk sitting on a wooden fence post. I was not more than 15 yards from the bird when I first saw it. I immediately noted that it had a light whitish line above the eye and a rather thin brown whisker like mark beneath its eye. As I was stopping the car, it flew down off the post and flew not more than a foot or two above the plowed field directly away from me. The color of the bird was a beautiful pure light brown from the head to the tip of the tail with no mottling or barring. The

long pointed wings were also the same pure light brown. I watched it with 8x40 binoculars as it flew straight away from me. Its flight was very graceful and swift. I watched it until it disappeared into the fog about 100 yards out over the field. Although I did not see the black "arm pit" because it flew so low over the ground, I was sure I had a Prairie Falcon and not an immature Peregrine Falcon because of the light brown color, the thin mustache under the eye and the whitish line above the eye. **Paul Egeland, 12 East 67th Street, Richfield, Minnesota 55423.**

BARROW'S GOLDENEYE, COOK COUNTY — On January 25, 1975, we left Thunder Bay, Ontario, at 8:30 a.m. E.S.T., to partake in the annual Winter Field Trip of the M.O.U. and the Thunder Bay Field Naturalists. Driving into a snowstorm made us pessimistic at first but conditions improved after passing Grand Portage. The first waterfowl were spotted in Chicago Bay at Hovland, riding the large rollers about 200 to 300 feet off shore. At times they would be out of sight in the troughs of the waves, then almost on pedestals on the crests. Beth Grimmer spotted the Barrow's Goldeneye first, remarking how the white went straight up to the head. A black marking divided the white of the chest from the white of the sides almost to the waterline. Three male Common Goldeneyes about twenty feet away were available for comparisons. The Barrow's Goldeneye had a distinctly darker back. A whitish mark in front of the eye seemed longer than the roundish ones of the Common Goldeneyes but none of us could swear it was a crescent. We then opened "Birds of North America" by Robbins *et al*, and then rechecked the bird. The previous observations were confirmed. I had the impression that there was a more forward slant to the back of the head but the profile was not always the same as the drake moved up and down with the rollers. Neither could the color of the head be determined — it just appeared very dark. The color and shape of the darkish bill was similar to that of the Common Goldeneyes.

Two female goldeneyes accompanied the three male Common Goldeneyes and closer to shore were a pair of Common Mergansers. Further out, towards the southern point of Chicago Bay, we could see two other greyish ducks not positively identified. Determination is based on the positive evidence mentioned as obtained during fifteen minutes of observation, elimination of all other white-fronted ducks, and by checking field guides. The binoculars in use were two pairs 7x50 and one pair 10x50. Observers were Beth Grimmer, Nick Hordy, and Keith Denis. I had previously observed Barrow's Goldeneyes in Glacier National Park, Montana, and in the Okonogan Valley, Nicola Lake, and near Duncan, British Columbia. This is the first time I have seen one on Lake Superior and there is no record for this species at Thunder Bay. Janet Green has advised me that there is one previous record for Cook County. — **Keith Denis, 48 Oak Avenue, Thunder Bay, Ontario. P7B 4V9.**

AN ICELAND GULL AT STONEY POINT — On February 15, 1975, Ray Glassel, Dick Ruhme, Liz Campbell, and I were returning from a trip to Grand Marais. As our last stop in the late afternoon we checked Stoney Point. Near the old fishing shacks in the area we noted a flock of 50-60 gulls, mostly Herring Gulls, but, two gulls stood out among the flock. One of these birds was an obvious second year Glaucous Gull, considerably larger than the other birds, a snowy white plumage and a large black tipped bill. The other bird was much more of a challenge to identify. I believe after careful consideration and observation, all four of us agreed that the bird was a first

year Iceland Gull. The bird was observed for over 20 minutes with 8 power binoculars and a 20 power scope at a distance of approximately 50-60 feet. Here is a description of the bird: Size, about the same or slightly smaller than the Herring Gulls, considerably smaller than the Glaucous Gull. The Iceland was side by side with several of the Herring Gulls, and also the Glaucous, for good comparison. The bill was smaller and more dainty than that of the Herring Gull. The bill was all black. The head and neck were less massive when compared to the Herring Gulls. The general plumage color of the body and head was an overall buffy white. Through the scope the base color was white with a scattered pattern of buffy edgings on the feathers. As the bird rested on the water the primaries were white, with a few flecks of buff. The eye was dark and there was no dark area surrounding the eye. After noting all of these characters we decided to flush the bird. I walked toward the flock of gulls and soon about half the flock, including the Iceland, flew directly away from me. The first thing I noticed was the evenness of the coloration on the back and wings of the bird. The same buffy-white throughout with no darkening on the primaries. The only exception to this was the tail. The upper third (base) of the tail appeared almost pure white with the lower part the same buffy-white as the rest of the body. This gave the tail a broad "banded" appearance, but, not a terminal band such as a Thayer's Gull (see LOON 46:136-142). The bird circled out over the water, but, never gave us a good look from underneath. The bird settled further out in the lake, about 75 yards, making further additional observation impossible. On February 1, 1975, Craig Faanes of River Falls, Wisconsin reported an Iceland Gull from the dump at Superior, Wisconsin. It is possible that this could be the same bird. **Robert B. Janssen, 14321 Prince Place, Minnetonka, Minnesota 55343.**

BARROW'S GOLDENEYE NEAR DULUTH — On February 1, 1975 I observed a Barrow's Goldeneye in company with Common Goldeneyes. The observation was made on Lake Superior near the National Water Quality Laboratory near Duluth in St. Louis Co. The first thing that struck my eye was the different pattern of black and white on the back. It was more blotched than the continuous strip of white on the back of the Common Goldeneye. My wife pointed out the difference of white on the wings from the Common Goldeneye. Also, most convincing of all was the crescent shaped white patch on the face of the bird. We watched the bird for about 10 minutes at a distance of 60 yards with 8x40 and 8x50 binoculars and a 30x spotting scope. **Craig Faanes, 524 South Main Street, River Falls, Wisconsin 54022.**

LOON WINTERS AT FERGUS FALLS — On January 29, 1975 my brother told me he'd seen a Common Loon on the river in Fergus Falls two days before (the 27th). He wasn't positive but didn't know what else it could be. Somewhat skeptical, on February 1 I checked the river but could not find the bird. I spotted it on February 3 at 10:30 A.M. It was an adult Common Loon, a soft medium brown above, with white on cheeks, throat, breast and flanks. The bird appeared perfectly healthy and dove regularly for food. In the several weeks that it remained, I nearly always found it in the same area of the Otter Tail River, a downtown section known locally as the "levee." This part of the river is only one block from the business district, but the auto and foot traffic didn't seem to bother the loon. It kept always to itself, remaining several hundred feet from the Canada Geese and Mallards that winter here. Although supposedly silent in winter, my father heard it give

a low call one day. What makes the sighting unique is that the bird showed up in mid-winter, after the big blizzard. Possibly it had been injured earlier and had been wintering farther north. Had it been here earlier someone would surely have seen it, especially during the Christmas count. The river during the count was thoroughly covered by Paul Anderson and his wife. Paul teaches biology at the high school, is an avid birder, and checks the river frequently in winter for oddities. He first saw the loon on February 1. My last observation of the loon was March 14, although my brother saw it about a week later, at which time he said it looked as though it was acquiring breeding plumage. I believe it left here about the third week in March. Other birds that wintered here this winter included two American Coots, a male Ring-necked Duck, and a Whistling Swan, in addition to the usual large number of Mallards and Canada Geese. **Steven P. Millard, 304 N. Vine, Fergus Falls, Minnesota 56537.**

WOODCOCK NESTING IN BECKER COUNTY — I've been making spring migration observations of the American Woodcock in central Becker County since the spring of 1966. Each year singing grounds are active within a quarter mile of our home, just three miles east of the town of Detroit Lakes. During these past years I had seen no evidence of reproduction although summer residents were observed. In the summer of 1973 I made my first observation of American Woodcock reproduction in Becker County. The date of observation was June 28, 1973 at 7:45 a.m. in Section 1 of Lakeview Twp. While driving to work on a gravel road about $\frac{1}{4}$ mile from home I came upon an adult Woodcock standing near the edge of the road. Stopping some 75 feet short I watched. The Woodcock slowly walked back to the edge of the ditch and stood for a moment. The adult then turned and following was a young Woodcock not much bigger than a day old pheasant chick. After getting the young one out in the road the adult got behind it and in short pumping strides, with intermittent stops, prodded the young to the other side of the road. The whole time span was probably no more than two or three minutes. At the time of my arrival on this scene the other young may already have been escorted across the road as there was no more sign of the adult Woodcock during the next few minutes of watching. Woodcocks usually have broods of three or four chicks similar to most shorebirds. **L. J. Koopman, Route 4, Box 62, Detroit Lakes, Minnesota 56501.**

CLARIFICATION OF AN ICELAND GULL RECORD — On January 28, 1967 Bob Russell and I observed an immature Iceland Gull at Knife River, Lake Co. Bob wrote up a description of the bird which appears in **The Loon** 39:47. At the time no one was aware of Thayer's Gulls and their similarity with Iceland Gulls in immature plumages, so that the details submitted did not preclude an immature Thayer's Gull. Therefore, Janet Green in her article on the Thayer's Gull in **The Loon** 46:136-142 rightly classified the "Iceland" Gull as an "unknown." However, the gull we saw had no hint of a dark terminal tail band, which is characteristic of the immature Thayer's. In February 1971 I observed with Janet Green an immature Thayer's Gull in Duluth which was much darker on the wings and tail than the Iceland Gull Bob and I saw in 1967. Therefore, on the basis of these additional details, I believe that our identification of this gull as an Iceland should stand. **Kim Eckert, Box 47, Garretson, South Dakota 57030.**

BOOK REVIEWS

The Owls of North America. Paintings and Drawings by Karl E. Karalus; text by Allan W. Eckert. 59 color plates; 278 pp. Doubleday and Co., Inc., Garden City, New York. 1974. \$29.95.

Anyone expecting that this expensive book will provide an up-to-date and accurate compilation of data on the behavior and ecology of the owls of this continent will be greatly disappointed. Although each of the 18 species is covered by a detailed text of 6-12 pages divided into 25-30 headings (e. g. shape at rest, eyes and vision, voice, mortality and longevity, habitat and roosting, courtship and mating), much of the descriptive material is exceedingly verbose, often romantic and anthropomorphic, and is so generalized that hard data is ferretted out with difficulty. There are no citations for the statements under each heading, and one wonders if they are based on isolated or extensive personal observations, anecdotal statements in the literature or on detailed field studies. For someone who knows little about owls or is not a serious bird student this defect is not overwhelming since there is included abundant information that would fascinate anyone interested in birds.

However, knowing from my own field experience many exceptions to the loose generalizations about some of the northern owls, I was left in doubt about the accuracy of the whole work. Let me illustrate:

Great Gray Owl under "Distinguishing Features." Comment — no mention is made of the white mark on either side of the chin which is the bird's most striking characteristic outside its eyes and size; the illustrations do not show this mark either.

Great Gray Owl under "Habitat and Roosting": "Dense forests of pine and fir are most favored, although . . . found during migrational periods in . . . meadows." Comment — since these are the only habitats mentioned, none of the mixed coniferous-decidu-

ous forest, including second growth aspen and open muskeg, where it is primarily found in Minnesota would qualify.

Great Gray Owl under "Food, Feeding Habits, Wastes": "Feces normally drop beneath where the bird is perched." Comment — nice to know that the law of gravity is still at work. Great Gray Owl under "Courtship and Mating": "Actual copulation seems more apt to occur on the ground than on a perch." Comment — one wonders upon how many observations that statement is based and by whom.

Saw-whet Owl under "Migration": "There is something of a migrational movement, though it is not truly a migration in the strictest sense of the word. . . . Normally, if there is to be a migrational movement southward at all, it will begin in October and reach its peak in December." Comment — not true in Minnesota (or the rest of the Great Lakes) where there is a regular fall migration that peaks in October-November (Green and Jansen, 1975).

Richardson's Owl (Boreal Owl) under "Voice": "It's most charming and distinctive call is a distinctly bell-like sound, muted and tinkling in character, which carries considerable distance, is highly ventriloquial, and has the amazing proclivity of sounding like water dripping from a little trickling waterfall into a small pool below." Comment — Although not so acknowledged in the text this appears to be a paraphrase from Seton (1911) and Bent (1938). To my mind it is a perfect description of the call of the Saw-whet Owl heard at a distance. This similarity is mentioned by the author, but I would like to know if anyone has learned anything new about the vocalizations of these two owls in the last 40 years.

Enough of examples. My confidence in the validity of the text was further weakened by errors in the maps of the Great Gray and Snowy Owls, primarily

in the southern boundary of the winter range in the Midwest. All this doubt is unfortunate because there is much useful information (some of it documented) in the long discussions of the Barn Owl and Screech Owl — two species with which I'm not familiar and about which I would like to know more. This doubt could have been ameliorated by specific citations, either by footnote or superscript, for the source of the information summarized under each heading without hurting the readability of the text. There is a bibliography of principal references at the end of the book, but it does not lessen the credibility gap since it is not specific as to the documentation for each species and since much periodical literature has not been included.

The illustrations, particularly the 59 colored plates, are the best part of this work. Each of the 18 species is pictured by at least one full-paged (8 $\frac{7}{8}$ by 12 $\frac{1}{4}$) colored painting and most by several paintings illustrating different subspecies. Half of the plates are of two species: Screech Owl (18 subspecies) and Great Horned Owl (11 subspecies). There are also black and white drawings of prey species, pellet remains, owl topography and field sketches of some species. Curiously, although the paintings are feather perfect, having been taken from specimens typical of each subspecies, they do not satisfy me in conveying the full essence of the living bird. Again my comments primarily concern the Great Gray, Saw-whet and Boreal Owls; the posture and gaze of these birds do not ring true. However, most readers will overlook this for the opportunity of having accurate, large portraits of all the North American owls.

Janet C. Green

Birds of Western North America, text by Laurence C. Binford, 50 full color plates by Kenneth L. Carlson, 224 pp. Macmillan Publishing Co. Inc. 866 Third Avenue, New York, New York 10022. 1974. \$25.00.

Kenneth Carlson, with his fine artwork in this book, now joins (or maybe he was there a long time ago) the

ranks of excellent contemporary bird artists such as Lansdowne. The format of this book follows closely that of "Birds of the Eastern Forest" and "Birds of the Northern Forest." The one advantage that this book has is that Carlson's subjects are less frequently illustrated and not as well known to eastern or midwestern birders. Examples are; Arctic Loon, Black-footed Albatross, Pelagic Cormorant, California Condor, Elegant Tern, Marbled Murrelet, Green Kingfisher, etc.

Carlson's paintings are truly magnificent and it is certainly a book for the collector to have on his shelf. This book confines itself to the non-passeriforme species. It seems obvious that it will only be a matter of time until a second volume on passeriformes is published. I look forward to seeing Carlson's expertise applied to these species.

The introductory text in the book consists of approximately eight pages of directions and information for the amateur bird student. Topics covered are birding as a hobby, listing, equipment, where to bird, publications, and an interesting section on ornithology and the amateur. Thus, this book is an attempt to blend birding with a set of 50 magnificent color plates at a cost of \$25.00. To this reviewer this presents a frustration, the plates are worthy of high praise and it is great to have them published in a book where all who can afford the \$25.00 price tag can appreciate them. The frustration is that this limits Carlson's exposure to many thousands of people. It is to bad that his talents can't be used in a less expensive book — possibly a field guide size book at a \$6.00 to \$10.00 price range where the species are illustrated in various plumages.

I bet that this approach would sell more books and would really benefit the birder. I for one would like to see much more of Carlson's talent. Instead of the big, the magnificent picture book type, lets have a book or books as suggested above, so more people can enjoy and benefit from an artist as talented as Carlson. Bob Janssen

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** need articles, shorter "Notes of Interest" and black/white photos. Photos should be preferably 5x7 in size. Manuscripts should be typewritten, double-spaced and on one side of the 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 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 Mrs. Janet Green. See inside front cover.

TABLE OF CONTENTS

LONG-EARED OWL-HAWK RIDGE, DULUTH — 11-21-74 Photo by Marj Carr	Front Cover
THE PRESIDENT WRITES	55
FALL OWL MIGRATION AT DULUTH, MINNESOTA by David L. Evans	56
FOOD HABITS OF TWO LONG-EARED OWL FAMILIES IN EAST-CENTRAL MINNESOTA by Glenn Christenson and Mark R. Fuller	58
NESTING OF SWAINSON'S HAWKS IN SOUTH-EASTERN MINNESOTA by Dean G. Schneider and Ronald D. Kneeskern	61
THE 1973 GREAT BLUE HERON MIGRATION IN MINNESOTA by Max Partch	66
GULLS AND TERNS NESTING AT DULUTH by James T. Harris and Sumner W. Matteson	70
THE FALL SEASON (Aug. 1 - Nov. 30, 1974) by Paul Egeland	78
NOTES OF INTEREST	92
BOOK REVIEWS	102

The
LOON

FALL 1975

VOLUME 47 — NUMBER 3



The LOON Minnesota's magazine of birds and nature, is published four times each year by the **Minnesota Ornithologists' Union**, the statewide bird club. Permanent address: J. F. Bell Museum of Natural History, University of Minnesota, Minneapolis 55455. Anyone interested in birds and nature 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: Karol Gresser, 8850 Goodrich Ave., Bloomington, Minnesota 55437. To join the MOU and receive both MOU publications, send Mrs. Gresser \$5 for a regular yearly subscription. Or other classes of membership that you may choose are: Family \$6 yearly; Sustaining \$25 yearly. Life \$100. Also available from Mrs. Gresser: back issues of **The Loon** (\$1.50 each ppd.) and MOU checklists of Minnesota birds (minimum lots of 20 for \$1.50 postage paid). Gifts, bequests, and contributions to the MOU Endowment Fund should also be sent to Mrs. Gresser.

EDITOR OF THE LOON: Robert B. Janssen, 14321 Prince Place, Hopkins, Mn. 55343. (phone 938-7464). The editor solicits articles, short notes, and black/white illustrations about birds and nature. See back cover for details.

"The Season" section of **The Loon** publishes reports of bird sightings throughout Minnesota. We particularly desire 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," Mrs. Janet Green, 9773 North Shore Drive, Duluth, Mn. 55804.** (area 218, phone 525-5654).

EDITOR OF THE MOU NEWSLETTER: Mrs. Marlyn Mauritz, 6810 Tecumseh Lane, Excelsior, Minn. 55331. Publishes announcements and reports about activities of the MOU and its affiliated clubs. (Club officers should keep both MOU editors informed.)

MOU OFFICERS

PRESIDENT: Jack Mauritz, 6810 Tecumseh Lane, Excelsior, Minn. 55331

FIRST VICE PRESIDENT: Henry Kyllingstad, 205 6th St. S., Marshall, Minn. 56258

SECOND VICE PRESIDENT: Wally Jiracek, 5814 Portland Ave. S., Minneapolis, Minn. 55417

SECRETARY: Jo Blanich, Box 96, Crosby, Minn. 56441

TREASURER: Karol Gresser, 8850 Goodrich Ave., Bloomington, Minn. 55437 (phone 612-831-5714).

MOU COMMITTEE CHAIRMEN

RESEARCH AND RECORDS: Mrs. Janet C. Green, 9773 North Shore Drive, Duluth, 55804. **FIELD TRIPS:** John Telfer, 5717 Hawkes Drive, Minneapolis 55436. **MEMBERSHIPS:** Mrs. George Stanley, 213 Janalay Circle, Minneapolis 55416. **NOMINATIONS:** Marvin Borell, 5808 Portland Ave., Minneapolis 55417. **UNIVERSITY COORDINATION:** Dr. Harrison Tordoff, Bell Museum of Natural History, Univ. of Minnesota, Minneapolis 55455. **NATIONAL AUDUBON COORDINATION:** Ed Brigham, Rt. 4, Red Wing 55066. **PUBLICITY:** Kathy Heidel, Rt. 5, Box 108, Excelsior 55331. **THOMAS S. ROBERTS AWARD:** Oscar Johnson, 7733 Florida Circle, Minneapolis 55428. **FINANCE AND ENDOWMENT:** Mrs. Mary Wyatt, 205 Oak Manor Ct., Fargo, North Dakota 58102. **HOT LINE:** Roy Zook, 5520 Warwick Place, Minneapolis 55436. **SLIDE FILE LIBRARY:** Wally Jiracek, 5814 Portland Ave., Minneapolis 55417. **HISTORIAN:** Mrs. Betty Campbell, 4917 Russell Ave. S., Minneapolis, 55410.

The Loon

AFFILIATED CLUBS OF THE

MINNESOTA ORNITHOLOGISTS UNION

AGASSIZ AUDUBON SOCIETY

President: Mr. Gladwin Lynne, 404 East Prairie Ave Warren, Minn. 56716

ALBERT LEA AUDUBON SOCIETY:

President: Mr. Donald Chryst, 2012 Capitol Lane, Albert Lea, Minn. 56007

AUDUBON CHAPTER OF MINNEAPOLIS

President: Mr. Harvey Djerf, 217A Trenton Lane N., Minneapolis, Minn. 55427

AUDUBON SOCIETY OF FARGO-MOORHEAD

President: Mr. William Wyatt, 205 Oak Manor Ct., Fargo, No. Dak. 58102

AUSTIN AUDUBON SOCIETY

President: Dr. Howard L. Brockman, Box 8, Austin, Minn. 55912

AVIFAUNAL CLUB

President: Mr. Harding Huber, 2109 Squire Lane New Brighton, Minn. 55112

COTTONWOOD COUNTY BIRD CLUB

President: Lester Rupp, Mountain Lake, Minn. 56159

DULUTH AUDUBON SOCIETY

President: Joseph Gollian, 5212 Otsego St. Duluth, Minn. 55804

ECOWAY AUDUBON OF PINE RIVER

President: Terry McGaughy, Route 1, Pine River, Minn. 56474

GRINDSTONE LAKE AUDUBON SOCIETY

President: Ted Lundberg Hinckley, Minn. 55037

HIAWATHA VALLEY BIRD CLUB

President: Karl Lipsohn Stockton, Minn. 55988

MINNEAPOLIS AUDUBON SOCIETY

President: Mrs. Ross Garrett, 6600 Southcrest Dr., Minneapolis, Minn. 55435

MINNESOTA BIRD CLUB

President: Mr. Manley Olson, 1974 W. Summer St. St. Paul, Minn. 55113

MINNESOTA RIVER VALLEY AUDUBON CLUB

President: Mrs. John Eliason, 8851 River Ridge Rd., Bloomington, Minn. 55429

MISSISSIPPI HEADWATERS AUDUBON SOCIETY

President: Dr. Adela Elwell, Box 93, Bemidji, Minn. 56601

ST. PAUL AUDUBON SOCIETY

President: Mrs. Isabel Goldberg 1915 Palace Ave. St. Paul, Minn. 55105

ZUMBRO VALLEY NATURE CLUB

President: Ervin Schmidt, 3920 Kahoun Ct. S. E. Rochester, Minn. 55901

THE PRESIDENT WRITES . . .

As you read this letter, written in the midst of the hot summer, remember that autumn and migrations are beginning. Yellowlegs and other shorebirds are moving and I've begun to see evening flights of ducks. There's hope that Minnesota will return to that beautiful condition of cool that I believe is best.

The return of the active season brings up a couple of things. One, Hawk Weekend at Duluth will be the September 20th weekend. If you haven't been you really should go. It's a special time of year and a special thrill is added by the parade of great birds that the event's really about. Hope to see you there.

The other point, as people with a special interest in the environment — let's not forget about such basic notions as energy conservation in the excitement of autumn. To attempt a feeble joke, it's energy saving to "bird with a friend" as well as to "bathe with a friend!"

Hope to see you in September. Have a great autumn!

. . . Jack Mauritz

MINNESOTA NEST RECORDS OF THE BROWN CREEPER

by David F. Parmelee

Few nests of the Brown Creeper (*Certhia familiaris*) have been observed in Minnesota, although the species probably breeds in many wooded sections of the State, and no doubt commonly in the coniferous zone. Only two nests were reported by Thomas S. Roberts in his "Birds of Minnesota" (University of Minnesota Press, Vol. II, 1932): one with six nearly fresh eggs in central Minnesota, probably southern Crown Wing Co., on 9 May 1870 by T. Martin Trippe; one with five "fully fledged" young and one unhatched egg behind loose bark 14 feet up in a dead spruce near the Brule River, Cook Co., on 21 June 1930 by E. D. Swedenborg.

According to Mrs. Janet Green (personal correspondence) very few have been recorded since Robert's time. John A. Jarosz (*Flicker*, Vol. 24, 1952: 146) noted three young creepers huddled together 30 feet up in large cottonwood at Hayden's Lake, Hennepin County on 15 (not 13) June 1951. According to Jarosz (personal communication) a nest was not actually seen by him that year, but the following year at Hayden's Lake (not Palmer's Slough) on 28 May he found one with six tiny young behind loose bark seven feet up in a dead maple. Young were still in the nest on 9 June but were gone by the 12th. A nest with an unknown number of young behind the loose bark of a "dead tree" was observed near Frontenac, Goodhue County during 14-24 May by Josephine and George Titus (*Flicker*, Vol. 28, 1956: 39). Professor Dwain Warner (personal communication) knew of a nest at La-Salle Creek Bog in the northeast section of Itasca State Park in Hubbard County during the late 1950's or early

1960's. Precise information on this site apparently does not exist. There are also a few Minnesota sightings, notably in Itasca and St. Louis Counties, of adults carrying food, or of fledged young being fed, but evidently nests were not found by the observers.

Brown Creepers are fairly common summer birds of Itasca State Park. Since 1971 I have kept a record of nests observed there while residing near Lake Itasca at the University of Minnesota Forestry and Biological Station. The first I recorded was three feet above the ground deep within an old fire scar of a live Red Pine at Douglas Lodge in Hubbard County. The last of an unknown number of young left this nest on 13 June when the site was shown to me by Dr. and Mrs. Harold R. Peasley of Des Moines, Iowa. The Peasleys had known of this site since 1959. Evidently it is used frequently, though not every year, presumably by different creepers from time to time. Also, in 1971, a nest was found about a quarter mile east of the Forestry and Biological Station in Clearwater County by the Field Ornithology class under the supervision of Dwain Warner. It was behind a loose piece of bark five feet up in a dead Jack Pine and held five large young on 25 June. Two days later four young lay helpless on the ground beneath the nest that had partly disintegrated, while one clung to some of the nesting material that remained on the tree. We repaired the flimsy structure and replaced the fallen young, but by 27 June some predator had totally destroyed nest and young.

Creepers did not use the Douglas Lodge site in 1972, but a pair nested again a quarter mile east of the Station

where I saw one of the birds carrying nesting material as early as 3 May. A clutch of six eggs was completed by 14 May. Another fresh but eggless nest I found in Hubbard County near the northeast corner of Itasca State Park on 10 May. It held a single egg on 14 May and a completed clutch of five eggs when checked next on 22 May. Both nests were behind loose bark four feet up in dead Jack Pines.

In 1973 the creepers were back in the Douglas Lodge site with a fresh nest and a full clutch of six eggs on 16 May. Creepers also nested again a quarter mile east of the Station, the nest being only two feet off the ground behind the loose bark of a dead White Pine. It held six incubated eggs when first seen on 30 May. A third nest behind loose bark eight feet up in a dead Balsam Fir was in the Wilderness Sanctuary area west of Elk Lake in Clearwater County. It was found by Mr. Thomas Anderson, a member of my Field Ornithology class. There were five eggs on 16 May and a sixth and final egg on 17 May. All three nests were studied in detail by another class member, Mr. Daniel Braaten, who will report on his observations separately.

The Douglas Lodge site was not used in 1974, nor was a nest found in the pine forest a quarter mile east of the Station. However, Frank Swendsen, a member of my Field Ornithology class that year, found a pair building in an isolated forest of mature Red

Pine a mile or so north of Bohall Lake in Clearwater County. This nest, about 12 feet above ground and behind loose bark of a slender, dead Balsam Fir, had six fresh or nearly fresh eggs on 24 May. This nest disintegrated during prolonged, heavy rains in early June. An old nest much reduced in size was found close by in the same forest. It was about seven feet above ground and typically situated behind loose bark of a Red Pine.

Another active nest recorded in 1974 was seen first on 13 May by Frank Swendsen on Bear Paw Point, immediately adjacent to the Station. This nest, about 10 feet up behind loose bark of a very large, dead Balsam Fir, was abandoned before egg laying commenced.

Records to date indicate that creepers nest widely in Minnesota. They use a variety of nest trees, commonly building behind the loose bark of dead trees at various heights. Such sites and nests are often fragile and do not last, forcing the birds to find new sites and build new nests each year. The same or different birds tend to nest in favored areas year after year. Atypical sites may be durable and used repeatedly. Egg laying starts early in May and continues into mid-May and occasionally into late May. The clutch size is five to six eggs, though as many as eight have been reported outside of Minnesota. **Bell Museum of Natural History, University of Minnesota, Minneapolis, Minnesota 55455.**

OBSERVATIONS AT THREE BROWN CREEPER NESTS IN ITASCA STATE PARK IN 1973

by Daniel J. Braaten

There are few records of Brown Creeper (*Certhia familiaris*) nestings for Minnesota, and heretofore none has been observed closely over a period of time. From 16 May through 5 June, 1973, I observed three active creeper nests while fulfilling class requirements for a course entitled "Field Ornithology" under the supervision of Professor David F. Parmelee at the University of Minnesota Forestry and Biological Station in Itasca State Park. I concentrated on certain aspects of nesting, notably incubation and care of young, and also observed feeding and defense behaviors near the nest.

The first nest (Nest 1) observed was three feet above ground within an old fire scar of a living Red Pine (*Pinus resinosa*) at Douglas Lodge in Hubbard County. According to D. F. Parmelee (personal communications), the site had been used previously, though not in 1972. Observation of this nest began on 16 May when there were six eggs that were fresh or nearly so.

Nest 2 was about eight feet above ground behind the shredding bark of a dead Balsam Fir (*Abies balsamea*) near the Wilderness Sanctuary parking area in Clearwater County. The nest, discovered by Thomas Anderson, held five fresh eggs when first checked by me on 16 May.

Nest 3 was within two feet of the ground behind the loose bark of a dead White Pine (*Pinus strobus*), about a quarter mile east of the Forestry and Biological Station in Clearwater County. The nest, discovered by D. F. Parmelee, held six incubated eggs when first checked by me on 30 May. This nest was later destroyed by a predator.

Methods

In attempting to determine the incu-

bation period of the Brown Creeper, I marked the eggs of an incomplete clutch with red finger nail polish. A 10-inch wooden dowel with a cotton tip was used in putting one dot on each egg at the beginning of the study and every time a new egg appeared thereafter. The last egg laid had only one dot.

Vocalizations of adults were obtained by using a Norelco cassette recorder with a plastic parabolic reflector at Nests 2 and 3. The microphone, placed on the ground 10 to 20 feet from the nesting tree, picked up the calls of the creepers in the nesting area.

I tested the defense reactions of the Brown Creepers at Nest 2, since it appeared that these birds were not so disturbed by my presence as were others. Responses were elicited by placing a mounted (dummy) Screech Owl (*Otus asio*) on a Balsam Fir 15 feet from the nest, and also by placing a mounted Brown Creeper respectively four feet and four inches from the nest. Finally, I played recordings (taken at Nest 2) of creeper calls in the presence of the birds at Nest 3.

Care of Eggs and Young

Evidently the creepers did not incubate before completion of the clutch and, except for three days before hatching, they spent surprisingly little time at the nest during daylight hours. At least I failed to record them often at the nest between 07:00 and 16:00 hours, though I did commonly at other times.

Three days before the eggs hatch the creepers are very reluctant to leave the nest and return almost immediately to the eggs when flushed, despite the time of day. I obtained no

information on the role of the sexes during incubation.

The sixth and last egg at Nest 2 was laid between 07:05 and 07:50 hours on 17 May. Hatching took place on 1 June. The first two chicks hatched by 09:50. One was still wet at the time. The third chick hatched at 10:30, the fourth and fifth between 15:45 and 16:28. The sixth failed to hatch and the egg was removed presumably by the birds on 3 June. Following the hatching of a chick, Brown Creepers remove the broken egg shells from the nest by carrying them off in their bills.

Since it was not possible to ascertain the incubation period in the traditional sense (laying to hatching of last egg of the clutch), the incubation period of 15 days, 7 hours, \pm 30 minutes was determined by using the time period from the laying of the sixth egg (17 May) to the hatching of the fifth (1 June)—a reasonable deduction in view of the fact the incubation probably did not commence before 17 May. The nearly simultaneous hatching on 1 June was additional evidence that incubation started after completion of the clutch. According to the *Encyclopaedia Britannica* (1967), the incubation period for the species is 15 days, though Bergtold (1917) stated that it is only 12-13 days.

At Nest 1 the incubation period was at least 15 days. The clutch which was complete when first checked on 16 May hatched sometime between 20:00 hours on 31 May and 09:30 on 1 June.

Newly hatched young are nearly naked except for a little black down on their crowns. Although their eyes are closed, they are capable of raising their heads and opening their mouths. When two days old, the head down is grayish brown with black tips. Grayish down also appears on the back at this time.

Feeding of young took place within three hours of hatching of the first three siblings at Nest 2. At first both parents brought insect larvae too large for the tiny young to handle and ended up by eating the larvae themselves.

Soon after they brought in small insects which the young readily ate. During the initial feeding, one of the adults sang a peculiar song that sounded like the squeaking of a mouse. The song started with a continuous series of squeeks that rose in scale and then fell off, followed by three single squeeks. I never heard the song again during many feedings observed thereafter.

Foraging Behavior

Most of my observations on the foraging behavior of Brown Creepers were made near Nest 2. The pair generally foraged north of the nest tree in a five-acre area where many White Spruce (*Picea glauca*) and Balsam Firs had blown down, although several Red Pines still stood. Less often they hunted along the outer edge of the blow down area where there were Paper Birch (*Betula papyrifera*), Aspen (*Populus* sp.), and Red Pines, and also south of the nest tree where there was a large boggy area with Basswood (*Tilia americana*), various shrubs and tall tree stumps. The creepers did not show a preference for certain tree species. They simply took the closest tree as they foraged through the forest from one tree to the next.

When foraging the Brown Creepers first flew to the base of a tree and then hopped up the trunk in search of food. Upon reaching the lower limbs, they usually flew down to the base of another tree. Sometimes they continued for a short distance beyond the first branches, but rarely all the way to the top.

One of the pair at Nest 2 usually flew down to the forest floor and circled the tree in search of ground insects before starting up. With three toes forward and one aft, it climbed the trunk in short hops. Its tail feathers served as a prop while it moved both feet higher up the tree nearly to the level of its head. Then it anchored its feet and pulled its body up with tail sliding along the bark behind.

After each hop it turned its head in all directions in looking for food, sel-

dom passing up a small hole or piece of upturned bark. Upon discovering that it missed a likely food source, it turned on its side and examined the spot from above. In attempting to reach a spot some distance beneath it, the bird invariably released its hold and fluttered down, landing below the spot it had missed. I never saw it back down the trunk, or go down head first.

Usually after reaching the first limbs, the creeper stopped, quickly looked backwards, and fell back off the trunk. It descended with wings spread, fluttering occasionally in breaking the fall. During the last 10 feet or so, it fluttered rapidly and landed on the ground or lower trunk of another tree.

On only two occasions did I see the bird spiral up a tree trunk. At all other times it hopped directly up the tree in more or less a straight line. Occasionally it moved across the trunk horizontally, but then it went straight up again.

The birds of Nest 2 often fed together and called back and forth continually when moving from tree to tree. When moving up a trunk their calls were soft, single, oft repeated "screeps." Whenever they changed trees, however, the calls increased in volume and frequency. One of the pair usually continued calling until its mate answered. If the mate failed to answer, the bird stopped hopping and continued calling until acknowledged.

Food was shared by the pair. When one found a large insect or larvae, it flew to its mate or simply called it in and fed it. The food call was a soft, "screep," almost a chirring sound, similar to one described by Roberts (1936). The fed mate remained attached to the trunk for a minute or so, uttering an occasional "scree" similar to the location call, though somewhat shorter or not so drawn out. The attending bird then flew off to another tree and once again searched for food.

One day the Brown Creepers of Nest 2 were joined by a White-breasted Nuthatch (*Sitta carolinensis*) and four

Black-capped Chickadees (*Parus atricapillus*). The group of creepers, nuthatches and chickadees moved together as a unit through the area, though the birds did not feed side by side but rather as a loose flock. Similar behavior was noted by Brewer (1967) when Black-capped Chickadees were with Brown Creepers 29% of the time. According to Peterson (1963), titmice, chickadees, woodpeckers, nuthatches, tree creepers, kinglets, and other woodland species often hunt in mixed groups.

Defense Behavior

Brown Creepers show alarm in the presence of potential enemies, and they are reluctant to return to the nest when watched by humans. Whenever I first flushed an adult from its nest, the bird flew off and called from about 75 feet away. Its mate usually joined in the calling. The distress or alarm call was a harsh, oft-repeated "screep" somewhat similar to calls used by feeding creepers, but noticeably louder.

After a few minutes the birds separated and one returned to the vicinity of the nest. Before going to the nest tree, however, it usually climbed several nearby trees and went through the motions of feeding or hunting for food. Even after alighting on the nest tree, it did not go directly to the nest but stopped past the nest cavity several times, and often it flew off for a few more minutes before actually entering the nest.

A mounted Screech Owl placed near the nest tree elicited an even greater response. The creeper erected its back feathers and fluttered its wings and in so doing exposed many of its white feathers. It gradually flew in closer to the owl and finally landed on the same tree with it. It looked at the owl from above and below while continually erecting its feathers and fluttering. Finally it lost interest in the owl and flew off. A live Blue Jay (*Cyanocitta cristata*) that happened to land near the nest one day elicited a similar response.

The dummy Brown Creeper placed

four feet from the nest elicited little response from the pair. The birds simply looked at it, then ignored it. When placed only four inches from the nest, one of the creepers pecked at the under tail coverts of the mounted bird but soon lost interest and returned to its eggs.

The tape recordings of creeper calls had no visible effect on the birds of Nest 3. The lack of response to these calls was surprising in view of the fact that creepers disperse widely during nesting. Study of their territorial behaviors should prove interesting.

Summary

Observations were made on three Brown Creeper nests at Itasca State Park in Minnesota during 16 May - 5 June in 1973. Brown Creepers at two nests completed their clutches in mid-May, the clutch size being six eggs at each of three nests. At one nest incubation did not start before completion of the clutch. Except for the final three days of incubation when the creepers were reluctant to leave the nest at any time, the birds apparently incubated steadily only during the dark hours. The incubation period at

one nest was ascertained to be approximately 15 days, and at least 15 days at another. Hatching commenced in late May and early June and the eggs of a clutch hatched within a short time period. Feeding of young took place within three hours of hatching. Foraging behavior of adults and their responses to humans and potential predators were observed. Several vocalizations of Brown Creepers were described.

Literature Cited

Bergtold, W. H. 1917. A study of the incubation periods of birds. Kendrick-Bellamy Co.

Brewer, R. 1967. Bird populations of bogs. *Wilson Bull.* 79:4.

Encyclopaedia Britannica. 1967. Encyclopaedia Britannica, Inc. William Benton Publisher. 6:721.

Peterson, R. T. 1963. *The Birds, Life Nature Library.* Times Incorporated. p. 123.

Roberts, T. S. 1936. *The Birds of Minnesota.* The University of Minnesota Press. pp. 85-88.

**Route 2,
Glenwood, Minnesota 56334**

CORRECTIONS

In the last issue of "The Loon" (47:82) there was an error in the date given under Ruddy Turnstone. The 9-27 date from Duluth by LP should have been **10-27**, a record late date for this species.

In "The Loon" 47:45-46, the three photos of the Gyrfalcon should be credited to Janet C. Green not Marj Carr.

Editor

THE 1973 CHRISTMAS COUNT

by Manley Olson

From a statistical sense the 1973 Christmas Count was the most successful ever conducted in Minnesota. A total of 39 counts were made compared with the previous record of 29 in 1971 and 1972. The 558 participants was also a record (previous high 394 in 1972) as was the 119 species recorded (previous high 115 in 1971). The record total of species becomes even more impressive when one notes that three subspecies identified in 1973 would have been considered as species in earlier years. Other records included 65 participants on the Itasca county and a total of 137,642 birds observed on all counts.

The growth of Christmas Counts in the past decade has been impressive. The number of counts has more than doubled in that time. Of even greater significance has been the spread of counts throughout the state. The 39 counts included 28 repeaters from 1972. Four counts were resumed after a one-year lapse (Anoka, Hastings, International Falls, and Red Wing) and five new counts were taken (Big Stone NWR, Grand Marais, Northwoods Audubon Center, Sax-Cotton, and Thief River Falls). Also included for the first time were the Minnesota parts of two Wisconsin-based counts — LaCrosse/LaCrescent and Nelson/Read's Landing. At least eight counts included territory outside Minnesota. Compilers of these counts were asked to report only on the part of the count taken in Minnesota. However, at least one count, Winona, does include birds seen outside Minnesota.

The Hastings count recorded 64 species, a new record for species seen in Minnesota. Only the Afton count of 1971 (67 species) exceeds this and that count included birds seen in Wisconsin. The previous Minnesota record was 56 species in Bloomington in 1971. Other high counts were Bloomington (56) and St. Paul and Excelsior (52). Totals of two-state counts included Af-

ton (58) and LaCrosse/LaCrescent (56).

Six new species were reported: Western Grebe (Fergus Falls), American Bittern (Hastings), Gyrfalcon (St. Paul N.E.), Swainson's Thrush (St. Paul), Chipping Sparrow (Big Stone NWR) and Rock Dove. The later has now been accepted by **American Birds** for inclusion on Christmas Counts. Because of confusion regarding the status, Rock Doves were counted by some and omitted by others.

The Ross' Goose at Rochester was the second count record having been seen there in 1964. Other unusual reports were Barrow's Goldeneye, Merlin, Greater Prairie Chicken, Hawk Owl, Great Gray Owl, Mockingbird, Varied Thrush, Eastern Bluebird, Yellow-headed Blackbird, Swamp Sparrow, Turkey, and Carolina Wren.

The Red-shafted subspecies of the Common Flicker seen at Cottonwood is the second Christmas Count record. Other identified subspecies included "Oregon" Junco, two races of Horned Lark and two color phases of Snow Goose. While both species of meadowlarks were reported only the Moorhead report documented its species (Western) and all are included under Meadowlark.

Five additional species were seen during the count period: Great Blue Heron (Bloomington and LaCrescent), Canvasback (Big Stone NWR and Hastings), Bufflehead (St. Paul), Yellow-rumped (Myrtle) Warbler (Grand Marais) and White-crowned Sparrow (St. Paul and Grand Marais). Species seen on out-of-state parts of counts were Bobwhite (LaCrescent), Ruddy Duck and Curve-billed Thrasher (Wabasha) and Fox Sparrow (Afton).

The only discouraging factor was the extremely cold weather at the end of the count period. Itasca had a low on its count day of -42° . Several counts were done entirely in sub-zero temperatures, for example International Falls had a "high" of -18 .

Count	Date	No. of Observers	No. of Parties	No. of Hours	Sky	Wind	Temp.	Snow	Compiler
Afton	1/1	8	3	24	Clear	SW 2-5	-28 -14	3-8	Lien
Albert Lea	12/16	19	12	26	Clear	SE 1-5	5 10	4-10	Gregerson
Anoka	12/15	13	1	7	Clear	NW 5	-15 -5	12	Bradley
Big Stone NWR	12/15	9	4	22	Clear	NW 2-6	10 20	1-3	Peterson
Bloomington	12/29	39	17	95	Clear	W 0-13	4 12	7	Gresser
Cedar Creek	12/22	8	3	24	Clear-PC	SW 10-12	19 25	2-3	Lien
Cottonwood	12/23	3	3	29	Cloudy	SE 5-15	14 24	6-8	Egeland
Crookston	12/15	3	2	16	Clear-Clo.	SE 0-20	-6 -10	6-8	Svedarsky
Crosby	12/16	2	1	8	Clear	0	10 15	4-6	Blanich
Duluth	12/30	21	10	47	Clear	W 12	-18 -5	8-12	Green
Excelsior	12/15	28	9	115	Clear	0	10 20	4-5	Janssen
Faribault	12/15	2	1	9	Clear	NE 8-12	13 20	2-5	Rustad
Fergus Falls	12/22	11	9	49	Clear	W 3-8	15 20	2-3	Anderson
Grand Marais	12/19	15	7	59	Clear-PC.	WNW 0-5	11 20	2-7	Vesall
Hastings	12/22	11	5	50	P.C.	NNE 5-15	11 28	2-6	Baumhofer
Hibbing	12/29	10	10	27	Clear	WNW 5-10	-15 5	2-4	McCracken
International Falls	12/31	3	2	11	Clear	W 5-14	-28 -18	7	Grim
Itasca	12/31	65	23	81	Clear	0	-42 -13	5-12	McIntyre
Little Falls	12/15	1	1	9	Clear	N 5	10 18	3	Ryan
LaCrescent	12/16	6	3	20	Clear	NW 0-3	-6 15	1-2	Leshner
Marshall	12/15	6	5	33	Clear-PC	0-4	5 12	5-8	Kyllingstad
Minneapolis	12/16	35	10	59	Clear	S 5-10	4 16	1-3	Johnson
Moorhead	12/15	20	5	40	Clear-Cloudy	NNE 7-9	-2 7	5-6	VanAmburg
Mt. Lake - Windom	1/1	12	4	24	Clear	SE 5-12	-30 -5	8-12	Wagner
Northwoods	12/22	5	4	14	Clear	SW 3-5	14 28	4-7	Link
Owatonna	12/29	33	8	48	Clear	NW 5-20	0 11	7-9	Hill
Read's Landing	12/30	3	1	?	Clear	W 9-17	-17 -2	4-5	Kemper
Red Wing	12/30	2	2	40	Cloudy	NE 15	-15 -3	5-6	Dankers
Rochester	12/29	30	6	33	Clear	WSW 4-10	-4 10	8-10	Fowler
St. Paul	12/29	29	16	91	Clear	W 12-18	2 12	8-10	Goldberg
St. Paul NE	12/29	35	10	104	Clear-PC	WNW 6-18	0 15	6-18	Fitzpatrick
Sax-Cotton	12/27	6	3	36	Cloudy	NNE 5-9	21 30	8-14	Baumhofer
Sherburne NWR	12/15	19	7	58	Clear	S 3-5	11 20	4-6	Drieslein
Thief River Falls	1/1	4	2	?	Clear	SW 10	-16 -10	8-12	Bendickson
Wabasha	12/20	6	3	36	Clear	NW 0-10	-8 10	6	Mahle
Walker	12/18	3	2	11	Cloudy	NNW 5	8 20	10	Hanson
Warren	12/15	6	3	16	Clear-PC	E 5	4 5	10	Lynne
Willmar	12/29	8	2	15	Clear	S 2-4	-2 15	8-12	Thoma
Winona	12/30	19	9	45	Clear	NW 10	-5 5	5-7	Drazkowski

1974 W. Summer St., St. Paul, Minnesota 55113

	Western Grebe	Pied-billed Grebe	American Bittern	Whistling Swan	Canada Goose	Snow Goose	Ross' Goose	Mallard	Black Duck	Gadwall	Pintail	American Wigeon	Northern Shoveler	Wood Duck	Redhead	Ring-necked Duck	Lesser Scaup	Common Goldeneye	Barrow's Goldeneye	Oldsquaw	Hooded Merganser	Common Merganser	Red-breasted Merganser	Goshawk	Sharp-shinned Hawk	Coopers Hawk	accipiter (sp)	Red-tailed Hawk	Red-shouldered Hawk	Rough-legged Hawk	Buteo (sp)				
International Falls																																3			
Thief River Falls																																			
Warren																																	1		
Grand Marais								194	55								2	30		7				1								x			
Crookston																																	x		
Hibbing																																			
Itasca																																	2		
Sax-Cotton																																	10		
Walker				x				8																								1			
Meerbeed								11																									1		
Duluth																																			
Crosby																	1						x	x									x		
Fergus Falls	1				640			680											8																
Northwoods																																			
Little Falls																																		1	
Sharburne					1	2		8																										1	
Cedar Creek																																		1	
Big Stone						18		33						1				1	2		1												1		
Amoka								625	4	1				1				30																	
Whitaker																																			
St. Paul (N.E.)								93																										3	
Minneapolis					57			1186											7															x	
St. Paul								1172	12			1	x	5				348	3														1		
Afton					1			238	25			1		1				300																	
Excelsior					1	263		3580	11	6			1	5				18															5		
Bloomington		1				34		1312	11				3	x	2		2	29		x		1	44									6			
Hastings			1		6			261	6	x	x	1		2			2	92															3		
Red Wing								165																										1	
Cottonwood																																		4	
Faribault								106																										1	
Marshall					2000	200																												1	
Read's Landing																1			25			1													
Wabasha						98		6000	80																									4	
Winona						2		86																										7	
Rochester					1	19,100	7	1	643	1									6															1	
Owatonna						51		351																										3	
Mt. Lake-Windom																																			1
La Crescent						43		12		1																								10	
Albert Lea								577																										1	
# of Counts	1	1	1	3	13	3	1	22	9	3	2	2	1	7	1	2	4	14	1	3	1	3	3	13	5	3	1	14	3	13	2	2			
# of Individuals	1	1	1	45	22,291	209	1	17,081	185	8	2	4	1	17	1	3	6	825	3	9	1	54	5	26	6	3	1	54	3	33	4	4			

	Golden Eagle	Bald Eagle	Marsh Hawk	Gyrfalcon	Merlin	American Kestrel	Ruffed Grouse	Greater Prairie Chicken	Sharp-tailed Grouse	Ring-necked Pheasant	Gray Partridge	Turkey	American Coot	Killdeer	Common Snipe	Glaucous Gull	Herring Gull	Ring-billed Gull	Rock Dove	Mourning Dove	Screech Owl	Great Horned Owl	Snowy Owl	Hawk Owl	Barred Owl	Great Gray Owl	Long-eared Owl	Short-eared Owl	owl (sp)	Belted Kingfisher	Common Flicker	Pileated Woodpecker			
International Falls						3		4										19				1													
Thief River Falls										32																									
Warren						1		27		71												4	1												
Grand Marais					1	x										334												x			x				
Crookston								67	1	x	21							2				1													
Hibbing							3		3													x													
Itasca	1	1					16															1							1		7				
Sax-Cotton									7															1	3		1								
Walker		3					4																	1	3							2			
Moorhead						1				5	42											6	1										3		
Duluth		2				x	7			17						2	380	505	10			4	2												
Crosby							1						x									1											1		
Fergus Falls			2				1			9			5																	1	1	1			
Northwoods							10		x													1											2		
Little Falls																																			
Sherburne		2				2	7			2									20											1			1		
Cedar Creek							4			11								64						1						2					
Big Stone			1			1			102	x									4	x	5						1		1						
Anoka							1			2								50	7			1		1											
Willmar							1			3	7	29						18	3			3									1		1		
St. Paul (N.E.)	1		1			4	27			107			2	2							44	x	3		3					x	1		39		
Minneapolis						2	2			112												45	2					1		1					
St. Paul						x	2			94								122	1	935	20	3	x							1					
Afton		6					5			66								80	10	1	3	1					1		1	1	1	3			
Excelsior		2				2				71			1						260	81	2	5		1		1			1	3	4				
Bloomington		1	1				4			136			1		2	1	94	4	31	54	1	2		2					2	2	4				
Hastings		6				6	7			14	6		1	x		x		724	47	4	1	2		2					2	2	1	4			
Red Wing										3								189											1						
Cottonwood						1				4									10			11												3	
Faribault										6										9		1												3	
Marshall		x								6	5									1		2	x					2		4	3				
Beed's Landing		3																						x											
Wabasha		16				1	1			5								67	8			2								1					
Winona		3				2	1			2								800	5	2	2				2									1	
Rochester										59			2									45	5											1	2
Owatonna							6			28	16		x									44	1											1	
Mt. Lake-Windom						1				46	7											2	3											5	
La Crescent							7			1				1								12	x		1						5			2	
Albert Lea										62									158	5	1	3												5	
# of Counts	1	15	3	1	1	14	21	1	5	26	9	1	5	1	3	2	4	2	15	22	5	26	7	1	8	1	1	4	2	15	13	18			
# of Individuals	1	64	4	1	1	35	111	67	42	973	207	29	10	2	5	3	930	5	3902	486	7	79	8	3	13	1	1	5	3	24	27	56			

	Red-bellied Woodpecker	Red-headed Woodpecker	Yellow-bellied Sapsucker	Hairy Woodpecker	Downy Woodpecker	Black-backed 3-toed Woodpecker	Horned Lark	Gray Jay	Blue Jay	Black-billed Magpie	Common Raven	Common Crow	Black-capped Chickadee	Boreal Chickadee	Tufted Titmouse	White-breasted Nuthatch	Red-breasted Nuthatch	Brown Creeper	Winter Wren	Carolina Wren	Mockingbird	Brown Thrasher	American Robin	Varied Thrush	Swainson's Thrush	Eastern Bluebird	Golden-crowned Kinglet	Bohemian Waxwing	Cedar Waxwing	Northern Shrike	Starling				
International Falls	2	1						4	6	1	67		19		6	2															x	36			
Thief River Falls	4	6							15				6		10																				
Warren	10	18							9	8			42		45																				
Grand Marais	18	16						5	41		18	3	43	2		2	11						3									x	185		
Crookston	5	1							10				26		10								x										x	8	
Hibbing	24	15						6	205		9	3	98	x		8	4						x	1			1						1	44	
Itasca	17	19	1					17	110	1	20	4	255	8		38	15	11								4									
Sax-Cotton	2					1		28	19		61		37	21		11	13																1	42	
Walker	17	11						57		5	3	52			23	2	1																	5	
Moorhead	25	10						7			13	88			37		8																	72	
Duluth	17	66						43		10	2	234			5	13							33							85		4	743		
Crosby	4	4						22			3	55			19		1																1	18	
Fergus Falls	37	43				12		58		1	2	216			130																			56	
Northwoods	7	2						1	21			1	48		8																				
Little Falls	1	3							6			2	7		6																			15	
Shurtleff	7	12						109				214	58		21		1										4					4	11		
Cedar Creek	3	4						13	18		8	175			228	77								1			4							129	
Big Stone								21	52		46	20		8	72		16		1												6	1	263		
Anoka	1							2	9			70		130	35		10									2								11	
Willmar	2							7	19			10		2	118		67		2															x	12
St. Paul (N.E.)	17	2						64	90	25	372	562	371		0	166	2	2				1	x								6	1	87		
Minneapolis	1	1						30	30		267	112	128		53		3							2									3	337	
St. Paul	0	2						32	63		255	400	218		80	3	5					1	2	5		1					1		4	2403	
Afton	29	4						53	83	1	239	239	264		100	7	1			1														97	
Excelsior	11	2						47	86		286	172	349		129	5	7		1				x										1	580	
Bloomington	4							39	61		124	65	217		3	82	1	8					1	1			1						2	465	
Hastings	21	1						21	42	3	138	96	83		1	100	1	5						1			1				16	1	1732		
Red Wing	6	2						5	7		18	11	15		16																			194	
Cottonwood	3							16	29		1021	17		6	46		22																	204	
Faribault	3	8						5	5		85	20		54	31		13																	82	
Marshall	2		1				12	21	1019		9		11	59		9	5	x																68	
Read's Landing									2		6		12	6		3																			12
Wabasha	19	9						22	24		36	130		33	85		33																	90	
Winona	34	25	1					27	47		8	317		154	137		64		5					1									1	747	
Rochester	20	16						21	47		103	80	77		55		2																	311	
Owatonna	9	6						14	44		35	84		98	91		64	1	2					1									1	588	
Mt. Lake-Windom								4	21		118	30		219	75		4							x										202	
La Crescent	13	12						5	11		50		24	22		15		1																x	74
Albert Lea	2							25	48		21	75		23	138		76		2															1	11
# of Counts	20	14	2	38	38	2	14	6	39	4	7	34	39	3	3	39	15	23	1	1	1	1	4	10	1	1	1	9	1	8	14		37		
# of Individuals	208	94	2	694	1068	2	2418	61	3589	11	190	2889	4094	31	13	1602	85	75	1	1	1	1	5	50	1	1	1	19	52	131	26		9878		

	House Sparrow	Meadowlark (sp)	Yellow-headed Blackbird	Red-winged Blackbird	Rusty Blackbird	Brewer's Blackbird	Common Grackle	Brown-headed Cowbird	Cardinal	Evening Grosbeak	Purple Finch	Pine Grosbeak	Hoary Redpoll	Common Redpoll	Pine Siskin	American Goldfinch	Red Crossbill	White-winged Crossbill	Dark-eyed Junco	Tree Sparrow	Chipping Sparrow	Field Sparrow	Harris' Sparrow	White-throated Sparrow	Swamp Sparrow	Song Sparrow	Lapland Longspur	Snow Bunting	# of Counts	# of Individuals		
International Falls	106									219	8	46	7	116	11		17	19									10	24	733			
Thief River Falls	323									6	1			42					5									360	14	900		
Warren	850					3										11			1	5								178	19	1285		
Grand Marais	86			1		1				197	x	82		233	54				14									28	28	1651		
Crookston	71						2					2	167	2														36	17	426		
Hibbing	150									210	65	66		96	32	3	9						2					20	25	1075		
Itasca	26									186	7	64	3	561	109		160	164										x	31	1836		
Sax-Cotton										29		31	2	366	8			139										56	24	895		
Walker	38							1		287	38	4		x	15			3	3									5	25	559		
Moorhead	1416	1	1							7	1		7	272	2			1	3									27	29	3075		
Duluth	500					x		2	77	69	2	3	1094	174	x	188	27	47								1	1	57	4382			
Crosby	145		x			x			51	2		1	222			2	16	1	4									x	23	587		
Fergus Falls	1594						1		2	24				127	3				15	40								53	30	3790		
Northwoods									3					33	28	2												x	15	170		
Little Falls	185													75															39	388		
Sherburne	125		1						2					690	88	46			201	223								38	31	1875		
Cedar Creek	526					2		x	50	6		3	1124	3	15	1		143	306									3	30	2041		
Big Stone	1067		1	10	2	10	2	6	5		16	1	1	222	36	43		59	404		1		1					44	2575			
Anoka	15						1		8		1			3	17	40		40	80										39	1239		
Willmar	290			7	x		6		6		4			1	4	11			52	358								29	3498			
St. Paul (N.E.)	1151	x			3		3		69	7	9		6	804	188	247	14	x	261	382							2	118	47	5398		
Minneapolis	836			4		2	4		28					353	27	121			310	304								11	36	4386		
St. Paul	2516			145	x		2		47		10	14	1	823	36	187	4	20	226	472							1	17	52	18794		
Afton	662	x					2		120		27			55	820	88	8		520	306			x						45	4485		
Excelsior	1796	1				2	18	1	104		30			192	128	307		14	359	753									52	9740		
Bloomington	805			2		77			44		2		1	186	80	204			329	1443									56	6046		
Hastings	1562	1		3	3		3		34		3			10		63	4	17	280	228					1	1	1	11	21	64	5712	
Red Wing	120						25		4						30	6			113	43									20	859		
Cottonwood	923			2	1				8			1	227	35					38	335								89	451	26	3506	
Faribault	176			2			x		6					300	10	3			14	535								700	30	2167		
Marshall	1214		80	8			x	2	1					3	1				11	455								3	314	33	5558	
Read's Landing																				12	6									12	94	
Wabasha	799	1		10			3		101		8			2	192				159	190								2	34	8212		
Winona	3723			830			6	1	220	7	11			42	30	111	8	x	516	825					1		2		43	8817		
Rochester	1437						1		85		24			160	55	141		4	156	177								110	44	22957		
Owatonna	1221			3	6		13		29					153	1	22			113	184									53	36	3309	
Mt. Lake-Windom	1223	1		7			2		3		15	x		140		3			132	117								2	9	392	29	2785
La Crescent	357			5	4		13	13	50		1				8	5			90	59								5		35	942	
Albert Lea	184	x					6		18		19				19	22			156	55			1					2	35	30	1551	
# of Counts	36	6	1	16	8	4	22	6	22	16	25	9	13	32	31	25	11	11	32	28	1	1	4	2	2	11	5	23				
# of Individuals	28,221	6	1	1112	28	17	193	24	981	1312	410	310	38	8858	2057	1898	418	424	4359	8392	1	1	5	2	2	29	113	3030		137,642		

THE WINTER SEASON - Dec. 1, 1974 - Feb. 28, 1975

by K. R. Eckert

Most of this winter wasn't too bad. Snow and cold temperatures weren't very extreme, especially in December and early January. Below zero temperatures held off until January 11 in the Twin Cities, and all of this warmth helped late lingering migrants and Christmas Count totals. But on January 10 and 11 what was described as the worst blizzard on record hit. Especially in southern Minnesota thermometers and barometers nosedived, snowdrifts piled up everywhere, and worst off all extremely high winds blew everything away. Property damage was considerable but worst of all were the scores of people killed as well as severe livestock losses. Birds at feeders were almost wiped out in the southwest part of the state. Most feeder watchers reported losses of around $\frac{1}{2}$ to $\frac{2}{3}$ and at least one observer reported a 100% loss! Species hardest hit were woodpeckers, chickadee, nuthatches, Brown Creeper, House Sparrow, siskin and goldfinch. The fact that some of these are hole and cavity roosters is hard to explain, though one possibility is that the snow driven by the extreme winds was so powdery that suffocation resulted even from a short exposure. At least three people I talked to who were out in the blizzard said they had trouble keeping blowing snow out of nostrils and mouth after just a brief time, so imagine the difficulties a bird would have. I found dead House Sparrows in my yard only two hours after the storm began, and since things continued for another day and a half without letting up, some birds must have gotten hungry enough to venture out to feed and were wiped out. Like I said, most of the winter wasn't bad, but that one weekend kind of spoiled the rest of it.

Perhaps as a result of the storm, birders later in January and February

found things pretty quiet in the woods. However, 45 observers reported a record 142 species. This is mainly due to the mild conditions in December that kept things around, especially for Christmas Counts. I only received copies of 26 counts to use for this report, but there were at least four other counts taken whose results I didn't see, so perhaps a species or two were missed for this compilation. Good Christmas Count totals were in the north (Duluth with 48 species) and west (Big Stone had 44) especially, but the most exciting counts were at Sherburne and Cottonwood. On the Sherburne count a Black-backed Three-toed Woodpecker was south of its normal range, a Townsend's Solitaire made one of its few appearances, and best of all was a first state record Lewis' Woodpecker which hung around for another four months. And Cottonwood had a Prairie Falcon which was the first winter report in the state since the early '60's, along with an unprecedented Pecoral Sandpiper which is certainly a winter first.

Other highlights? Water birds were especially numerous, with such things as Common Loon, Red-necked Grebe, Greater Scaup and White-winged Scoter remaining longer than usual. Grand Marais was the place to be this winter (if you managed to choose the right day): three Mute Swans showed up for only the second time in the state, and BJ and JG had one of the best birding days ever by finding a Barrow's Goldeneye, Harlequin Duck and King Eider in the harbor. Greater Prairie Chickens wandered south to Lincoln Co., and the Bobwhite and Chukar continue to barely hold their own. I forgot to mention Ring-necked Pheasant losses from the blizzard of up to 50%, but for some reason Gray Partridge seem unaffected by the

storm. An immature Iceland Gull made one of its rare appearances, defying the latest Thayer's Gull craze, and the Boreal Owl again just barely kept itself on the regular list by turning up on the Gunflint Trail. Ruby-crowned Kinglets and a Loggerhead Shrike were recorded for only the second time each, and most remarkably were first winter records for Black-and-white Warbler and Ovenbird. All the winter finches were scarce this winter, except for Evening Grosbeaks, and finally a possible Vesper Sparrow lingered into January in Cottonwood Co. On the negative side, no one managed to find Gyrfalcon, Spruce Grouse, Thayer's Gull or Short-eared Owl.

I'll end this introduction with a few announcements. First, on behalf of Terry Savaloja, Paul Egeland, myself and all future seasonal report compilers, please throw away your list of county numbers. Counties were given a number a couple years ago to see if a computer could work in compiling these reports. That experiment failed after only one report, and continued use of those numbers makes the compilers' job more difficult. Second, I'm happy to welcome back RG as a contributor to these seasonal reports. Ray has long been an expert on Minnesota birding, but it's been several years since we've heard from him and he turned in the best report of the season. Also wish Ray luck with his Minnesota year list — as of mid-July he had 278, so he's got an excellent shot at the old record of 290 or even the "impossible" of 300 in one year. Finally, some of you may wonder why some contributors' names or initials change from one report to the other. Other compilers may follow a different method, but I list an observer's name as he lists it on the report form, and we all sign our names in different ways from time to time. As a result, your assigned initials may change because of this or because another contributor with the same initials may turn up. Thus you may be DB one time but DAB the next depending on who's submitting re-

ports. It is also hoped that some of you who take the trouble to contribute don't get discouraged if your initials seldom get into these seasonal reports. Information on even those birds too common to document with dates and initials is appreciated, and your report forms are kept on file for possible future reference. There's even an advantage in not using some initials: if Beatrice Smith saw too many good birds, I might be accused of putting too much BS in this report.

COMMON LOON

One overwintered at Fergus Falls, Ottertail Co. from 1-27 into March (P. Anderson); also a late migrant 12-12 St. Louis (JG, BJ).

Red-necked Grebe

Two very late migrants at Duluth on 12-21 (JG).

Horned Grebe

12-2 Hennepin (BJ).

Pied-billed Grebe

Reported on the Bloomington and Fergus Falls Christmas Counts; also 1-2 Dakota (RG).

Great Blue Heron

Late migrants 12-2 Chippewa (CH), 12-3 Dakota (VRL), and Bloomington Christmas Count; also 2-13 at Spring Banks L., Dakota Co. (CF) — coincidentally the only other two February records were also on the 13th!

Whistling Swan

Lingered long enough to participate on the Fergus Falls, Big Stone, Rochester (cripple) and Wabasha (382) Christmas Counts; also 3 in Stearns Co. on 12-11 and 1-5 (BH, NH); as late as 12-12 at Weaver marshes, Wabasha Co. 1000 were still present, and one swan remained all winter (WDM).

MUTE SWAN

The most inconsiderate birds of the year were three Mute Swans which showed up at Grand Marais, Cook Co. on 1-27 — the day after the M.O.U. winter trip; they remained here until mid-February; second state record.

Canada Goose

Reported from 15 counties north and west to Stearns, Ottertail, Big Stone, Chippewa (28,000 on 12-2 and 4000 on 12-17 on Lac Qui Parle refuge) (CH), and Lac Qui Parle; peak at Rochester, Olmsted Co. was 24,000.

White-fronted Goose

A late migrant recorded during the Winona Christmas Count week.

Snow Goose

At least nine all winter at two spots in Minneapolis, Hennepin Co. (PZ, VRL); also late migrants 12-2 to 12-23 Chippewa (CH), 150 on 12-7 Lac Qui Parle (AFE), Bloomington and Rochester Christmas Counts.

Mallard

Reported from 27 counties north to Marshall, Itasca and Cook; peaks of 5000 on 12-2 in Chippewa Co., 7956 on the Bloomington Christmas Count, and 6000 on 12-19 in Winona Co.

Black Duck

Reported from 11 counties north to Big Stone and Cook.

Gadwall

Reported on the Winona Christmas Count, on 1-5 in Hennepin Co. (M. Johnson), and on 1-7 and 2-1 in Scott Co. (VRL, BJ, RG).

Pintail

Reported on the Big Stone, Willmar and St. Paul Christmas Counts; also 1-1 Yellow Medicine (BJ, RG), 1-7 Scott (VRL, RG) and 2-17 Hennepin (PZ).

Green-winged Teal

Reported from Ramsey Co. on the St. Paul Christmas Count and on 1-7 and 1-8 (BJ, RG).

Blue-winged Teal

Reported on the Winona Christmas Count, (needs details).

American Wigeon

Reported on the Big Stone, St. Paul and St. Paul N.E. Christmas Counts; also 12-7 and 2-17 Hennepin (VRL, PZ), 12-8 Dakota (ES), and 12-12 (JG, BJ) and 1-25 at Grand Marais, Cook Co. (first northern winter records?).

Wood Duck

Reported from Chippewa, Scott, Hennepin, Ramsey, Wabasha and Winona Co's.

Redhead

Reported from Ramsey Co. on 1-7 and 1-8 (BJ, RG) and on the St. Paul Christmas Count; also 1-17 and 2-1 Scott (BJ, RG).

Ring-necked Duck

Reported on the Fergus Falls, Bloomington and Winona Christmas Counts; also seen in Hennepin Co. from 12-28 to 2-8 (PZ, KE, VRL, RG).

Canvasback

12-6 Hennepin (CLH); 12-8 Wright (BH); 12-12 (250) and 12-29 Winona (WDM).

GREATER SCAUP

A female was reported with good details from Anoka Co. from 1-5 to 1-21 (OJ, PZ, BJ); first winter record.

Lesser Scaup

Reported from the Fergus Falls, Grand Marais, Minneapolis, Bloomington, St. Paul and Winona Christmas Counts; also 12-31 Houston (KE), 1-1 and 1-5 Hennepin (PZ, KE), 1-4 Lac Qui Parle (PF), and 1-8 Ramsey (RG).

Common Goldeneye

Reported from 18 counties; numbers down on Lake Superior: only 17 on the Duluth Christmas Count and 6 on the Grand Marais Christmas Count.

BARROW'S GOLDENEYE

Three reports with good details: one female at Grand Marais, Cook Co. on 12-12 (JG, BJ); one male at Duluth on 2-1 (CF); another at Hovland, Cook Co. on 1-25 (Thunder Bay Field Naturalists).

Bufflehead

Reported on the Big Stone and Duluth Christmas Counts; also two seen by many from 1-25 to 2-15 at Hovland, Cook Co.; 12-3 to 1-26 Dakota (PZ, VRL); 12-7 Hennepin (VRL, CLH); 2-1 Sherburne (BJ); more reports than usual.

The Loon

Oldsquaw

Reported from Lake and Cook (peak at 80 on M.O.U. winter trip).

HARLEQUIN DUCK

Single females seen 12-12 and 12-14 at Grand Marais, Cook Co. (JG, BJ, DB) and at Stoney Point, St. Louis Co. on 2-1 (CF).

KING EIDER

One found at Grand Marais, Cook Co. with the Harlequin and Barrow's Goldeneye on 12-12 and 12-14 (JG, BJ, DB); fifth state record.

WHITE-WINGED SCOTER

Up to 4 seen in Cook Co. on Lake Superior on 12-12, 12-21 and 2-15 (JG, BJ, ES); also two on 1-26 at Stoney Point, St. Louis Co. (PF).

Hooded Merganser

1-2 Olmsted (JF); 12-3 Dakota (VRL); 1-23 Hennepin (VRL).

Common Merganser

Reported from Hubbard, St. Louis, Cook, Big Stone, Chippewa, Kandiyohi, Dakota, Goodhue and Wabasha Co's.

Red-breasted Merganser

Five reports: Big Stone and Minneapolis Christmas Counts, 12-28 and 1-8 St. Louis (GN, JG), 2-15 Cook (BJ) — probably latest date on record.

Turkey Vulture

Reported on the Winona Christmas Count, (needs details).

Goshawk

Reported from 18 counties south to Yellow Medicine, Renville and Rice.

Sharp-shinned Hawk

Nine reports from seven counties: St. Louis (Hibbing and Duluth), Kandiyohi (Willmar Christmas Count), Hennepin, Ramsey, Goodhue (all winter), Wabasha and Le Sueur.

Cooper's Hawk

Reported on the Minneapolis Christmas Count and from 1-20 to 2-20 in Stearns Co. (NH).

Red-tailed Hawk

Reported from 19 counties north to

Marshall (Warren Christmas Count) and Lake (1-13, RG).

Red-shouldered Hawk

Reported on the Willmar Christmas Count (details?), in Goodhue Co. (all winter, CF and 1-5, RG), and on 2-8 in Houston Co. (FL).

Rough-legged Hawk

Reported from 25 counties; more common than usual.

Golden Eagle

Reported from 4 areas: 1a on 2-25 at Agassiz, Marshall (SV); 2 on 2-20 in Clay Co. (D. Evans); 12-5 (1) and 12-17 (2) in Chippewa Co. (CH); Whitewater Wildlife Area, Wabasha-Winona Co's (Wabasha Christmas Count; 12-19, WDM; 1a on 1-5, RG; 2i on 2-22, FL).

Bald Eagle

Reported from Marshall (1a, 1i), Hubbard, Itasca (1a), St. Louis (10 at Duluth and Hibbing), Lake (1a), Lac Qui Parle (2), Chippewa (6), Stearns, Sherburne (1a), Hennepin, Ramsey (2a), Dakota, Goodhue (12), Wabasha (14), Winona (1a), and Le Sueur Co's.

Marsh Hawk

Reported on the Excelsior, Bloomington, St. Paul and La Crosse Christmas Counts; also 12-2 Swift (HH), 12-21 Hennepin (VRL), 12-24 Rice (BJ), 1-7 Sibley (RG).

PRAIRIE FALCON

This casual visitant was reported on 12-14 on the Cottonwood (Lyon Co.) Christmas Count. (P. Egeland).

MERLIN

Reported on the St. Paul N.E. Christmas Count (details?), and on 12-12 and 2-15 in Cook Co. (BJ.)

American Kestrel:

Reported from 22 counties north to Marshall (Warren Christmas Count) and Duluth (1-24 and 1-26, KE, E. Campbell).

Ruffed Grouse

Reported from 17 counties; appeared to be down in numbers.

Greater Prairie Chicken

17 seen on the Crookston Christmas Count; also a reliable report of 6 near Lake Benton, **Lincoln Co.** on 2-20 (G. Scott); this species migrates in small numbers to southwest Minnesota.

Sharp-tailed Grouse

Reported from Marshall Co. (Warren Christmas Count and 5 at Agassiz, SV), Aitkin Co. (17 from 1-4 to 1-18, RG), and St. Louis Co. (1-14, P. Fearing).

BOBWHITE

This elusive bird was found 12-26 and 2-13 at Prairie Island, Goodhue Co. (CF).

Ring-necked Pheasant

Reported from 30 counties; reported to have suffered heavy losses from the January 10-11 blizzard.

Chukar

3 found at Ely, St. Louis Co. on 1-18 (RG).

Gray Partridge

Reported from 18 counties; more widespread than usual; at least two observers reported this species to have survived the January 10-11 blizzard with little or no losses.

Turkey

No reports from Whitewater, but FL reported four from Freeburg, Houston Co. on 1-8 and says they are wild.

American Coot

Reported on the Fergus Falls, Big Stone, Bloomington, St. Paul, Rochester (overwintered), and Winona (19) Christmas Counts; also 12-8 Wright (BH), 12-7 to 1-7 Hennepin (VRL, BJ), 1-7 Dakota (VRL, RG), 1-2 to 3-1 Scott (RG, BJ).

Killdeer

Reported from the St. Paul N.E., Winona, La Crosse and **Rock Co.** Christmas Counts; also 2-28 Houston (FL).

Common Snipe

Reported from **St. Louis** (12-21, JG), Sibley, Hennepin, Ramsey, Dakota, Winona, Houston and Mower Co's.

The Loon

PECTORAL SANDPIPER

One very late migrant on 12-24 on the Cottonwood (Lyon Co.) Christmas Count; latest date on record by about a month. (P. Egeland, H. Kyllingstad).

Glaucous Gull

Reported from Grand Marais, Cook Co. (2 from 12-12 to 1-26, JG, BJ, RG, KE); Silver Bay, Lake Co. (1 on 1-26, KE); St. Louis Co. (Duluth Christmas Count and 2-15, BJ); also 1 reported during the **St. Paul** Christmas Count week.

ICELAND GULL

This elusive gull was found on 2-11 at Stoney Point, St. Louis Co. (1i, BJ).

Herring Gull

Seen in Cook, Lake and St. Louis Co's on Lake Superior as usual, but migrants also lingered inland on the Minneapolis, St. Paul (152), St. Paul N.E., and Bloomington (311) Christmas Counts; last seen 1-8 Dakota (RG).

Ring-billed Gull

Reported on the Bloomington and Minneapolis Christmas Counts; last seen at Black Dog Lake, Dakota Co. on 1-7 (VRL); also seen until 12-10 in Wabasha Co. (WDM).

Rock Dove

Peak of 7534 on the Duluth Christmas Count; none reported on the Walker, Hibbing and Grand Marais Christmas Counts.

Mourning Dove

Reported from 19 counties north to Polk, Clearwater and Duluth; wintered in greater numbers than usual: four Twin Cities Christmas Counts had between 71 and 81 recorded and DAB counted 100 wintering in Ramsey Co.

Ringed Turtle Dove

What was obviously an escaped bird was seen at a feeder in La Crescent, Houston Co. on 2-28; however this bird is of interest since this is its second winter here, and it built a nest in the vicinity last summer. (fide FL).

Screech Owl

Reported from 13 counties north to

Marshall (Warren Christmas Count), Big Stone and Sherburne.

Great Horned Owl

Reported from 23 counties.

Snowy Owl

More widespread than usual: reported from Clay, Ottertail, Marshall, Wilkin, Crow Wing, Aitkin, St. Louis (only 2 at Duluth but 8 at Sax-Zim), Lake, Stearns, Chippewa, Cottonwood, Murray, Hennepin (4), Olmsted, Ramsey, Dakota and Lyon Co's.

Hawk Owl

Two reports from Cook Co.: 12-21 (ES) and 12-31 (J. Jepson).

Barred Owl

Reported from 10 counties west to Kandiyohi (Willmar Christmas Count).

Great Gray Owl

Four reports: Hibbing Christmas Count; 1-31 and 2-2 in Cook Co. (J. Sublett, E. Pearson); up to three seen along Hwy. 310 near the Canada border in Roseau Co. from 12-19 to 2-17 (fide R. Nero).

Long-eared Owl

Reported on the Big Stone and Cottonwood Christmas Counts; also 12-3 and 12-25 Duluth (K. Sundquist, H. Roberts); 2-26 Cottonwood (CF).

BOREAL OWL

One found on the Gunflint Trail, Cook Co. on 1-1 (J. Jepson); this very rare owl continues to just barely hang on to its "regular" status.

Saw-whet Owl

Only one report: 2-24 Mower (RK).

Belted Kingfisher

Reported from 12 counties west to Rock, Nicollet and Sibley.

Common Flicker

Reported from 20 counties north to Ottertail and Sherburne; peak of 16 on the Rock Co. Christmas Count; also a Red-shafted form was seen in Hennepin Co. in January (J. Keinkes).

Pileated Woodpecker

Reported from 25 counties west to

Polk, Ottertail, Stearns and Le Sueur; peaks of 7 and 8 on the St. Paul N.E. and Excelsior Christmas Counts.

Red-bellied Woodpecker

Reported from 25 counties north and west to Stearns, Marshall (Warren Christmas Count, details?), Big Stone and Rock.

Red-headed Woodpecker

Reported from Sherburne, Dakota, Steele, Olmsted, Wabasha, Winona, Houston and Mower Co's.

LEWIS' WOODPECKER

One found near Santiago, Sherburne Co. on 12-28 on the Sherburne Christmas Count (OJ); remained in the exact same spot all winter and was seen and photographed by many; first state record.

Yellow-bellied Sapsucker

Reported on the Moorhead Christmas Count and from 12-31 to 1-27 in Hennepin Co. (VRL).

Hairy Woodpecker

Reported from 41 counties.

Downy Woodpecker

Reported from 39 counties.

Black-backed Three-toed Woodpecker

Reported from Cook (1-1, J. Jepson; 1-26, KE; 2-1, LS), St. Louis (2-2, GN), Morrison (12-22, DB) and Sherburne Co's (Sherburne Christmas Count).

NORTHERN THREE-TOED WOODPECKER

12-23 Morrison (DB) and 1-9 Crow Wing (3, RG).

Horned Lark

More common than usual: reported from 35 counties north to Marshall, Beltrami, Morrison and Mille Lacs; peak of 2318 on the Rock Co. Christmas Count; first migrants on 1-17 in Olmsted Co.

Gray Jay

Reported from Marshall, Koochiching, Itasca, St. Louis, Lake, Cook and Dakota Co's (12-6 and 12-7 at Lakeville, L. Thomas).

Blue Jay

Reported from 42 counties.

Black-billed Magpie

Reported from Polk, Marshall (11 on the Warren Christmas Count and 21 at Agassiz, SV), Itasca, Aitkin, St. Louis, Cook, Clay, Chippewa (1-4 to 2-6, CH), Lyon (Cottonwood Christmas Count), and Hennepin Co's (2-25, Bloomington, AJ); more widespread than usual.

Common Raven

Reported from 11 counties south to Aitkin and Pine.

Common Crow

Reported from 34 counties north to Marshall, Clearwater, Aitkin, St. Louis, Lake and Cook.

Black-capped Chickadee

Reported from 41 counties.

Boreal Chickadee

More reports than usual: reported from Marshall, Hubbard, Aitkin, Clearwater, St. Louis (Duluth and Hibbing Christmas Counts, 8 at Ely, 6 at Sax-Zim), Lake, Cook, Ottertail (Fergus Falls Christmas Count) and Kandiyohi Co's (Willmar Christmas Count; details?).

Tufted Titmouse

Reported on the Bloomington, St. Paul, St. Paul N.E., Rochester, La Crosse and Winona Christmas Counts; all winter in Olmsted (JF, FH) and Goodhue (CF) Co's; also 1-10 and 2-23 Hennepin (RG, VRL).

White-breasted Nuthatch

Reported from 42 counties; several observers reported this species especially down in numbers after the January 10-11 blizzard.

Red-breasted Nuthatch

Reported from 24 counties.

Brown Creeper

Reported from 25 counties north to Marshall, Clearwater, Hubbard, Cass, Itasca and St. Louis; more common than usual.

The Loon**Winter Wren**

Seen on 1-6 (RG) and 2-1 (BJ) in Hennepin Co.

Brown Thrasher

Reported on the Winona Christmas Count, from 12-28 to 2-14 in Olmsted Co. (JF), and on 1-25 in Hennepin Co. (VRL).

American Robin

More widespread than usual: reported from 20 counties north to Cook, Clearwater and Marshall.

Eastern Bluebird

One seen on 2-22 at Whitewater Wildlife Area, Wabasha Co. (FL).

Varied Thrush

Four reports: Hibbing, St. Louis Co. (12-9 and on the Christmas Count, H. Micensky); from 12-15 into February at Barnum, Carlton Co. (H. Shepard); from 12-26 into February at Tofte, Cook Co. (Mrs. Hoagland); from 2-5 to 2-22 at Eden Prairie, Hennepin Co. seen by many.

TOWNSEND'S SOLITAIRE

One seen near Zimmerman, Sherburne Co. on 12-18 (Mr. Jones, H. Withers). (Poor details?).

Golden-crowned Kinglet

Reported from 11 counties north to Marshall, Clearwater and Crow Wing; peak of 49 on the St. Paul N.E. Christmas Count.

RUBY-CROWNED KINGLET

12-3 Wabasha (WDM); 12-11 Hennepin (VRL); 12-28 to 2-15 Olmsted (K. Rossi, JF); late December to mid-February at Proctor and 12-30 at Duluth, St. Louis Co. (A. Kroll, M. Kohlbry); only one previous February record.

Bohemian Waxwing

Reported from Marshall (32), Pennington (70), Clearwater (15), Duluth (peak of 65), Crow Wing, Sherburne (3 on 12-18, OJ) and Rice Co's (2 on 2-15, OR).

Cedar Waxwing

Reported from 14 counties north to Marshall, Pennington, and Duluth.

Northern Shrike

Reported from 23 counties south to Winona, Olmsted, Cottonwood and Yellow Medicine.

LOGGERHEAD SHRIKE

One reported with good details on 1-10 at Carver Park, Carver Co. (RG, K. Heidel); only the second winter record.

Starling

Reported on all Christmas Counts.

BLACK-AND-WHITE WARBLER

One at a feeder in Duluth from 2-15 to 3-21 (J. Clark); good details, first winter record.

OVENBIRD

From 12-27 to 1-9 in Minneapolis (good details, VRL); first winter record.

House Sparrow

Not only did Grand Marais have no pigeons on its Christmas Count, but it also lucked out with no House Sparrows.

Meadowlark, sp.

Reported from 15 counties north to Clay, Kandiyohi, Stearns and Sherburne.

Red-winged Blackbird

Reported from 23 counties north to Marshall, Pennington, Clearwater and St. Louis; peaks of 511 on La Crosse Christmas Count and 1138 on Wabasha Christmas Count.

Northern Oriole

One lingered until 12-11 in Stearns Co. (BH).

Rusty Blackbird

Reported from 14 counties north to Ottertail and Itasca (12-6, MS).

Brewer's Blackbird

Reported on the Big Stone, Bloomington and St. Paul N.E. Christmas Counts; also 12-5 to 12-17 Freeborn (DG).

Common Grackle

Reported from 23 counties north to St. Louis (12-21, JG; and Hibbing

Christmas Count), Lake (1-26 at Beaver Bay and Finland, KE, PZ) and Cook (Grand Marais Christmas Count); peak of 339 on La Crosse Christmas Count.

Brown-headed Cowbird

Reported on the Big Stone and Winona (10) Christmas Counts; also 12-24 Rice (BJ), 1-22 Winona (25, A. Buggs), and 2-5 Houston (15, FL).

Cardinal

Reported from 26 counties north and west to Lake (2-1, VRL), St. Louis (Duluth Christmas Count and 12-10 in Hibbing, H. Micensky), Carlton (E. Peterson), Clay (2-24, LCF), Big Stone, Lyon and Rock.

ROSE-BREADED GROSBEAK

One seen on 1-24 at a feeder in Tofte, Cook Co. (E. Campbell); latest wintering date on record.

Evening Grosbeak

Reported from 22 counties south and west to Winona, Olmsted, Stearns and Ottertail.

Purple Finch

Reported from 22 counties north and west to St. Louis, Clearwater, Marshall, Polk, Clay, Big Stone and Renville.

Pine Grosbeak

Not as widespread as usual: reported from 10 counties south only to Aitkin, Mille Lacs and Morrison.

Hoary Redpoll

Only two reports: Duluth Christmas Count and 2-22 Clay (LCF).

Common Redpoll

Reported from 20 counties south to Winona, Mower, Kandiyohi and Big Stone; fewer reports than usual.

Pine Siskin

Also down in numbers: reported from only 13 counties south to Olmsted, Mower, Steele, Swift and Big Stone.

American Goldfinch

Reported from 24 counties north only to Big Stone, Stearns and Chisa-

go; usually there are a few northern reports.

Red Crossbill

Also down in numbers: reported only from St. Louis, Cass, Hubbard, Clearwater, Ramsey, Goodhue and Olmsted.

White-winged Crossbill

Reported only from Cook, Lake, St. Louis and Mower (2-24, RK).

VESPER SPARROW

One reported on 1-4 in Cottonwood Co. by R. Wagner; need details — would be only fifth winter record.

Dark-eyed Junco

Reported from 35 counties north to Clearwater, Cass, Crow Wing, St. Louis, Lake and Cook.

Tree Sparrow

Reported from 28 counties north to Ottertail and Crow Wing.

Harris' Sparrow

Reported from Big Stone (Christmas Count), Swift (all winter, HH), Rock (1-5, KE), Carver (12-29, BJ), Ramsey (1-7 and 1-8 RG, BJ), and Clearwater 1-18 to 1-25, RD).

White-crowned Sparrow

Reported on the Sherburne Christ-

mas Count and on 2-24 in Winona Co. (R. Bilder — second latest wintering date on record).

White-throated Sparrow

Reported from Hennepin (again on the Nicollet Mall in Minneapolis, CLH), Ramsey (St. Paul Christmas Count), Olmsted (12-27 to 12-29, JF), Winona (1-1 and 1-21, Mrs. Gadow, D. Becker), Duluth (all winter, J. Gallian), Crow Wing (Crosby Christmas Count), Cass (Walker Christmas Count) Co's.

Fox Sparrow

4 at La Crescent, Houston Co. on 12-14 (D. Schneider) and also seen during the Winona Christmas Count week.

Swamp Sparrow

Reported on the Winona and Grand Marais Christmas Counts, poor details on latter record).

Song Sparrow

Reported from 12 counties north to Big Stone, Swift and Lake (12-28 and 1-8, GN, JG).

Lapland Longspur

Reported from Wabasha, Olmsted, Mower, Rock (173 on Christmas Count), Chippewa and Cook (1-14, RG) Co's.

Snow Bunting

Reported from 29 counties.

CONTRIBUTORS

Elizabeth Anderson, EA
David A. Blais, DAB
Don Bolduc, DB
H. F. Chamberlain, HC
Mable Coyne, MC
Richard C. Davids, RD
Mrs. Arnold DeKam, AD
Kim Eckert, KE
Mr. & Mrs. Eckhardt, AFE
Craig Faanes, CF
L. & C. Falk, LCF
Mrs. L. A. Feil, LF
Herbert J. Fisher, HF
Joan Fowler, JF
Pepper Fuller, PF
Raymond Glassel, RG
J. C. Green, JG
Doris Gregerson, DG
Helen Hatlelid, HH
Carrol Henderson, CH
F. Vincent Herring, FH
N. M. Hiemenz, NH
Bruce A. Hitman, BH
Box 47, Garretson, South Dakota 57030

Robert E. Holtz, RH
Charles L. Horn, Jr., CLH
M. Ivanovs, MI
Bob Janssen, BJ
Oscar L. Johnson, OJ
Mrs. A. M. Joul, AJ
Ronald Kneeskern, RK
Violet & Ruth Lender, VRL
F. Z. Leshner, FL
Wynn & Don Mahle, WDM
Gerald J. Niemi, GN
Orwin A. Rustad, OR
Lloyd Scherer, LS
Madeline Schuller, MS
Beatrice A. Smith, BS
Evelyn T. Stanley, ES
D. A. Stein, DS
Forest & Kirsten Strnad, FKS
Sarah Vasse, SV
Mark Wright, MW
Kevin J. Zimmer, KZ
Paul A. Zucker, PZ

notes of interest

Those records of casual and accidental species marked with an asterisk (*) have been accepted by the Minnesota Ornithological Records Committee.

A SAGE THRASHER SPECIMEN — I found the bird on a gravel road near my country home, eight miles south of Clarkfield, Yellow Medicine County. The date was October 19, 1974, at about 10:30 A.M. I have no doubts that the bird died one-half hour before I found it for the following reasons: (1.) It's blood had not yet coagulated, and the soil upon which it rested was flecked with oozed blood. (2.) The air temperature that day was in the low 50's and cloudy, yet the bird's body was very warm. (3.) Usually the longer a bird is dead, the firmer its feathers set, yet in the area where the bird lay, there were feathers scattered on the gravel road. (4.) Its eyes were not atrophied, nor was the body firmly rigid. (5.) The ectoparasites, of the suborder Mallophaga, barely macroscopic, were still alive and active on their host. Consequently, I personally believe the bird was not dropped from a car traveling through from somewhere out west. Of particular interest to me, as I skinned the bird, preparatory to mounting it, was the fact that it had developed heavy layers of fat beneath its skin, much the same way a House Sparrow or Horned Lark would insulate itself against an approaching winter. One could develop many theories from this observation. Was it preparing to winter in our area, for example? The accompanying photo is of the mounted bird. **Gary L. Otnes, Route 2, Clarkfield, Minnesota 56223.**

Editor's Note: The above record constitutes a new addition to the Minnesota State list. The species is recorded casually in western North and South Dakota and western Nebraska. I viewed the mounted bird at the May M.O.U. meeting in Luverne and it is a beautiful specimen of a Sage Thrasher.



(*) MINNESOTA'S SECOND MISSISSIPPI KITE — Bill Pieper and I were driving north on Mower County Road #10 on May 24, 1975. As we entered Olmsted County on County Road #3, Bill noted a hawk coming from the north so we stopped the car and got out. Immediately we knew we had something out of the ordinary. At first glance the bird appeared to be falcon like, smaller than a Peregrine or Swainson's Hawk and larger than a Merlin. The wingspan was about that of a Peregrine with overall plumage coloration being dark. As the bird came closer we noted that it was a dull bluish gray over the total upperparts including the tail. The head was plain, unmarked possibly a slightly lighter gray than the upperparts. As the bird approached we noted that the underparts were a lighter gray slightly streaked, but, not striped. The under wings were dark. We thought the bird was going to circle directly over us, but, instead it stayed a short distance away flying, circling and wheeling very gracefully, more like an accipiter or buteo than a falcon. About this time, the bird had probably been in view for one to two minutes, it began to circle off to the north. The bird wheeled and gave us a good view of the underside, showing a barred under tail of lighter and darker gray stripes. The tail was neither noticeably notched or rounded. It was at this time that I was sure we had a kite, a Mississippi Kite. The bird was probably in a sub-adult plumage, but, quite close to the adult plumage. The exact location of the observation was at the junction of Olmsted County Roads #3 and #149 in the vicinity of the Root River. The bird circled out over the river valley and slowly disappeared off to the north. We searched northward and east and west along the river but, could not find the bird again. The first observation of a Mississippi Kite in Minnesota was made by Bill Litkey on August 31, 1973 near Arco, Lincoln County (Loon 45:13).
Robert B. Janssen, 14321 Prince Place, Minnetonka, Minnesota 55343.

(*) MINNESOTA'S FIRST CALIFORNIA GULL — The California Gull is a species that bird listers have expected to stray into Minnesota. The bird breeds quite close to Minnesota, in North Dakota at Chase Lake and Devil's Lake which are approximately 75 miles west of the Minnesota line. On May 30, 1975, Ray Glassel and I had an excellent opportunity to positively identify a California Gull. We were enroute to the M.O.U. meeting at Luverne when we decided to visit Split Rock Creek State Park at Ihlen, Pipestone County. It was about 5:30 P.M. when we entered the park, the sky was clear with a brisk wind blowing out of the northwest. We drove immediately to the lake in the park and noted a gull flying over the lake. At first glance we thought it was a Herring Gull. Ray commented that we should check it closely for a possible California Gull. For the next five minutes we observed the bird from ranges of 50 to 100 yards through 9x35 and 8x40 binoculars and a 20X scope. The bird was in the air the whole time with two momentary landings on the water. Here is a description of the bird from notes taken at the time of observation. The bird was in full adult spring plumage. Size — smaller than a Herring Gull, slightly larger than a Ring-billed Gull. Bill — bright yellow with a dark area about $\frac{2}{3}$ of the way toward the tip of the lower mandible. We could not determine if the spot was red or black or both — it just appeared dark. Size of bill was slightly smaller than a Herring Gull, but, obvious, probably because of bright color. Head, neck, and nape were a clear white. Mantle, tail and wings from above were a dull gray, not the vivid blue-gray of an adult Herring. The black area of the wings was separated quite evenly from the gray, not a jagged cut off as in Herring Gulls. The primary tips were white, the longest primary with extensive white. This gave the wings tips the appearance of having "lights" on the tip, this was

especially noticeable as the gull flew directly toward us. Breast and underparts were a bright white. The legs, which were observed several times as the bird dangled them to the water were a greenish-yellow color. The bird had a very graceful flight as it fed in gull fashion over the lake. The bird worked the lake from south to north and then disappeared over the north end of the lake. We drove to the north end of the lake, but, could not find the bird again. Several other people and ourselves checked the lake the next day, but, could not find the bird. **Robert B. Janssen, 14321 Prince Place, Minnetonka, Minnesota 55343 and Raymond Glassel, 8219 Wentworth Avenue, Minneapolis, Minnesota 55400.**

A WHITE-FACED IBIS IN LINCOLN COUNTY — On May 2, 3 and 4 I observed a White-faced Ibis approximately $1\frac{3}{4}$ miles west of Tyler, Lincoln County. On the first day, without my binoculars, I saw the bird from a distance and it appeared all black. When I went back and looked again with binoculars, it wasn't black at all, but, a bronze color, kind of a medium sized bird with long legs and a long bill with a slight curve. Its body was bronze colored with a red-gold tinge to the whole area, at the bend of its wings it was red and it appeared to become redder up the neck and then blended into the bronze further up on the head. There was white around the eye and under its chin. It was a beautiful bird and very exciting to see. **Avis J. Davis, Route 2, Lake Benton, Minnesota 56149.**

WHITE-FACED IBIS IN WABASHA COUNTY — On May 5, 1975, my husband and I, along with Evelyn Stanley, Sue Sack, and Jeff Jepson, saw the two ibises which were found by Dr. Don Mahle in Wabasha County. These birds were first seen by us along County 24 south of Wabasha and as reported by Dr. Mahle they were feeding in a flooded field. This first sighting was at a great distance and although we could recognize the ibis as such we could not say definitely whether they were Glossy or White-faced. The birds flew off and we found them a second time not far to the northwest of the original field. This time we observed them both in flight and feeding about 250 feet from the car. We used binoculars (7x35, 7x42) and twenty and thirty power scopes to determine that they were White-faced Ibis. Mr. and Mrs. Bill Draskowski also observed the birds there. In good sunlight, with very little wind, we saw the white outline around the face, the red patches in front of the eyes, and the reddish brown color of the legs. It was especially noticeable in flight that one bird was considerably larger and had a longer bill than the other. Jerome and I had seen Glossy Ibis in Florida in February, 1975, but this was our first view of the White-faced Ibis. Our thanks to Mrs. and Dr. Don Mahle for alerting the Hot Line to these birds. — **Karol Gresser, 8850 Goodrich Ave., Apt. 303, Bloomington, Minnesota 55437.**

A MOUNTAIN BLUEBIRD IN LAC QUI PARLE COUNTY — On April 7, 1975, there was a strong wind from the east, the temperature was in the 40's and the snow slowly melting. The sloughs were still covered with ice, but, we were looking for waterfowl on the flooded meadows along Florida Creek 13 miles southeast of Madison and only two miles from our farm in Lac Qui Parle County. As we slowly drove up to some open water where we had spotted some Canada Geese and a small flock of Mallards, Pintails, and Green-winged Teal, we flushed a Mountain Bluebird from a nearby fence post. We could see, even without binoculars, the light blue breast as well as the intensely blue back. From the fence post, the bluebird flew to a near-

by ice ridge, where he actively hunted and probed for food being wind rowed by the wind and waves. His actions were not to different than that of a Killdeer working the same shore only ten feet away. On April 8, another blizzard hit the area and we didn't get back to this spot. However, on the 9th we returned and he was still there, this time the wind was not so strong and he was observed for 15 minutes flying from stocks and stems in the flooded meadow. **Goodman and Marge Larson, 4801 Diane Lane, Hopkins, Minnesota 55343.**

MOUNTAIN BLUEBIRDS AT BEMIDJI — A pair of Mountain Bluebirds was observed over a span of eight days from April 3-11, 1975, at Bemidji, Beltrami County. Six sightings of the birds were made during this period. Four of the six reported sightings were verified by myself with the last observation being made by my entire ornithology class. One male and one female were observed — usually together. The first observation was made as the pair was on the ground between the blanket of snow and the south side of one of our college buildings. They were quite unafraid and remained while we observed them from as little as twenty feet. All observations were made on the campus or along a steep east-facing bank of the lake just south of the campus. These were practically the only areas even partially free of snow. As the week progressed the snow melted and the birds could find new territory for seeking food. The number of times I observed the birds at close range, comparing them to the bird guide as well as two observations made in the west (New Mexico) leave no doubt that identification is correct. **Harold T. Peters, 1423 Calihan Avenue, Bemidji, Minnesota 56601.**

(*) **LEAST TERN AT MARSHALL, LYON COUNTY** — On Saturday May 17, 1975 when I was leading a car caravan field trip for the Audubon Chapter of Minneapolis (formerly the Minneapolis Bird Club) our last major birding area visited was the sewage lagoons at Marshall. Here the group was fortunate to view about thirteen species of shorebirds, but on this day shorebirds were not to be the highlight of our birding at Marshall. Earlier in the



The Loon

day, at our lunch break at Madison, Minnesota I and Karol and Jerome Gresser had discussed the sighting of Arctic Terns and Little Gulls at Duluth in recent years. Karol had mentioned that there might be a possibility of sighting a Least Tern at Marshall. Little did we know at that time that about five hours later a Least Tern should make a momentary stop at Marshall. After having made a rather exhaustive observation of the shorebirds and finding no further additional species to add to our list it seemed the time had come to start back for home. At this time I noticed a small white bird flying over the southeast lagoon. Up to that point we had only two terns on our list for the day so I thought that maybe here was an opportunity to add an additional species to our list. Excitement filled our car as the bird flew closer and we were able to observe each of the field marks of the Least Tern; yellow bill, white forehead and black outer primaries. The bird flew to a small sandbar located a few yards from the northwest corner of the lagoon. Here it alighted with a small group of Black Terns. Almost immediately it flew up, but presently it returned to the small sandbar. At this time I was able to take two photographs of the bird. Other members of my party who saw the bird were my son Mark, Pat Leacock and Paul Zucker. Immediately after having photographed the bird I drove forward a few hundred yards to tell the Gressers and the Bolducs of our sighting. As I said earlier the Least Tern made only a momentary stop as it was not seen again during an extensive search of the area during the next hour. **Oscar L. Johnson, 7733 Florida Circle, Brooklyn Park, Minnesota 55445.**

LEAST TERN OBSERVATION IN NOBLES COUNTY — On June 14, 1975, Glen Scott of Sioux Falls and I had just finished a Roadside Breeding Bird Census in Nobles Co., when we decided to continue birding on our own before returning home. We first went to Midway County Park just northeast of Adrian. This tiny park consists of a small patch of trees and prairie and a small lake — the only lake in western Nobles Co. We first spotted some shorebirds with a tern sitting on a far shore of the lake, and I assumed the tern to be a Forster's. But as we drove closer to identify the shorebirds and parked about 100 feet away, I again looked at the tern and saw it to be a Least Tern. Its black-tipped yellow bill and black cap with white forehead made identification easy. Also its small size was obvious as it was only slightly larger than a nearby Baird's Sandpiper, and once when it flew around over the lake it was joined briefly by some larger Black Terns. Also as it flew, the tern showed a blackish area on the fore edge of the wing near the wing-tips, and we could also see the short tail to be only slightly forked. Glen took several photos of the tern at rest and in flight and could get within 50 feet of the bird, but since he had no telephoto lens, only one of the pictures is barely recognizable. The tern remained at the lake for over an hour, but Bob Janssen and Ray Glassel came the next day to try to find it with no success. This represents the seventh record for the Least Tern in the state. **Kim Eckert, Box 47, Garretson, South Dakota 57030.**

THAYER'S GULL AT DULUTH — On Saturday, May 3, 1975, at 7:30 a.m. Richard Ruhme and I arrived at the Port Terminal at Duluth. In a flock of gulls we discovered three white-winged gulls. Before they flushed we identified one as a Glaucous Gull by the larger yellowish bill and the overall size of the bird which was slightly larger than Herring Gulls. One of the other white-winged gulls was smaller and had an all black bill and when it flew up briefly and landed we could see a trace of grayish band at the end of the tail. Before we could identify the third white-winged gull, the whole flock

took off and flew out over the harbor and did not immediately return. We returned to the spot in the afternoon about 4:30 and found most of the flock had returned to the Port Terminal and we immediately located the smaller white-winged gull with the gray band on the under side of the tail. We observed the bird from two directions in good light, with 15x-60x spotting scope with the sun at our back and obliquely toward the bird, and as the bird preened itself we were able to recognize this as the bird we had seen in the morning. It had the all white plumage with a black line thru the eye, perhaps $\frac{3}{4}$ of an inch long. The wings extended beyond the tip of the tail. This bird was identified as a Thayer's Gull and very much resembled a Thayer's Gull reported near Bloomington in November 1974 as regards to the band on the tail and the bill (although that bird had an almost buffy brown plumage). Although the bird did not have noticeably dark wing tips either from above or below we thought we saw a trace of dusk on the first primary. There was evidence of a black band on the tip of the tail as viewed from its upper side. We feel that the sun and snow conditions over the past winter may have bleached out the black wing tips and the top of the end of the tail but, we felt that the fact that the underside of the tail distinctly displayed the tail band lends credence to our identification of the bird as being a Thayer's Gull. The bird resembles the Thayer's Gull recently pictured on the front cover of the "Loon." It is quite evident in this particular type of plumage as well as in younger plumages the Thayer's Gull much more resembles the Iceland Gull then it does the Herring Gull. **Bill Pieper, 22 Rice Creek Way, Fridley, Minnesota 55432.**

SNOWY EGRET OBSERVATION — I would like to report seeing a Snowy Egret in Minnesota. The following is a documentation of the sighting: One bird was seen on May 21, 1975, one-half mile south of Reno, Houston County, near the mouth of Crooked Creek, on the west side of Highway 26. The habitat where the bird was found was a marshy area near the creek, slightly flooded, intermitant areas of mud, grass, and shallow water with a few dead trees. The time was late morning between 11-11:30 A.M. The bird was seen for about 20 minutes and again as we drove by the location about an hour later. The appearance of the bird was small, pure white heron with black bill and legs, yellow feet. The birds behavior was very active, which along with its small size made it very noticeable. It would run about six feet, pause while gazing into the water, then run off in a different direction. It was feeding like this the entire time of observation, except for a brief flight when we got to close. Observations were made at a distance of 25 yards with 10x50 and 7x35 binoculars. The yellow feet were visible without binoculars. The sky was clear to partly cloudy with direct lighting on the bird. The bird was relatively tame. We eliminated the Cattle Egret because this species would have had a yellowish or orange bill, the immature Little Blue Heron because of the bill and leg color. **William and Malenna Smith, 1646 Bainbridge, LaCrosse, Wisconsin 54601.**

Editors Note: Mr. Smith submitted a photograph of the Snowy Egret. The photo of the bird was too small for reproduction, but documented the identification of the bird. This is the first documentation for this species in the state; there are no specimens.

CINNAMON TEAL IN BLUE EARTH COUNTY — Ray Glassel and I were birding in Blue Earth County on May 10, 1975. We were traveling north out of the small hamlet of Butternut and at the junction of County Roads 6

and 11, we turned westward. Almost immediately I noted a reddish brown duck on a small grassy pond. It was obvious the bird was a Cinnamon Teal even before we used the binoculars. We watched the bird for about 15 minutes, as it fed "teal-style" in the grassy areas of the pond. The bird was a deep cinnamon-brown throughout with a very striking yellow eye. This bird was accompanied very closely by a female teal. We could not determine if this was a female Cinnamon or Blue-winged Teal. The male was seen on May 11 by Dick Ruhme and on May 13 by Harding Huber. On the 11th the bird appeared to be alone, but, on the 13th Harding reported that it was accompanied by a female. The bird was not seen after this date, although the area was checked several times. **Robert B. Janssen, 14321 Prince Place, Minnetonka, Minnesota 55343.**

A HOODED WARBLER IN MINNEAPOLIS — The Hooded Warbler was seen by Ray Glassel, Don Bolduc and I at Roberts' Sanctuary on the morning of May 16, 1975, in the area between the feeder and Lake Harriet Boulevard. I first heard about the bird on the Hot Line the day before and was glad to go with Ray and Don to try to find it early Monday morning. As we walked down the path, they heard it singing and we followed the song to where we found the bird. It was flitting rapidly around the shrubs and fallen trees at a level of about three to four feet, pausing to sing several times, and moved out of sight rather quickly. I saw a male with bright yellow color and black hood. The black area under the throat was not as extensive as I remembered it from the sighting in 1973, but this just shows my inexperience with this bird. We had only a few minutes to see the bird, but there was no doubt that it was a Hooded Warbler. **Karol Gresser, 8850 Goodrich Ave., Apt. 303, Bloomington, Minnesota 55437.**

WORM-EATING WARBLER AT ROBERTS SANCTUARY — After several hours of looking and much despair, my husband Jerome and I finally found our lifer Worm-eating Warbler! This was May 18, 1975, at Roberts Sanctuary, Minneapolis, around 4:30 p.m. on a hot, sunny day. We started looking about noon in response to a Hot Line call and, after an hour out for lunch from three to four o'clock, the bird was found at last about eight feet in from the path on the north side. It moved from one small clump of dead leaves to another, repeatedly feeding on the underside of the cluster and never went more than six feet from the ground. The stripes on the head were outstanding and the buffy color stronger than the illustration in Robbins' Field Guide. I was struck by how large it seemed, which may have been because of its closeness. In spite of the color and closeness, however, when you took your eyes off it or if it moved quickly to the ground, it again became hard to find. After spending ten minutes or so on leaf clusters it flew to the other side of the path and moved among the fallen logs, tree bases and dead leaves. We never heard it sing, but I thought once before we found it that I heard an insect-like buzz. After watching for about twenty minutes we decided to look for the Hooded Warbler. Fran Nubel and Martha Stebelton arrived a while later and we again found the Worm-eating Warbler for them to see. **Karol Gresser, 8850 Goodrich Ave., Apt. 303, Bloomington, Minnesota 55437.**

CAPTURING AN OVENBIRD — On May 12, 1975, at about 10:30 A.M. I was on my way to the Hennepin County Government Center in Minneapolis when the following encounter took place. As I emerged from the Cargil Building I saw an Ovenbird huddled on the sidewalk. As it appeared rather

disoriented I thought it would be a good idea to capture it. My first effort was unsuccessful; and the bird, after bumping a store window, flew across the street and landed on the sidewalk. This event attracted the attention of pedestrians and by the time I reached the bird there were four people standing around looking at it. This time my efforts were successful. My return to my office with a live bird in hand caused no little confusion among the switchboard operators and secretaries. The bird was placed in a suitable box and successfully released during the noon hour at the T. S. Roberts Sanctuary. When you walk into an office with a live bird in your hand your requests for assistance are always quickly honored. This was my third hand capture of a wild bird in downtown Minneapolis (American Woodcock in 1971 and Northern Yellowthroat in 1972). The trick is to have an available source of suitable boxes. A paper bag will do as a temporary expedient. (I know as I used one for an injured Lesser Yellowlegs once). So, all you birders take heed and never go downtown in the Spring and Fall without one. **Charles L. Horn, Jr., 5100 Juanita Avenue, Edina, Minnesota 55424.**

EARLY DATE FOR NASHVILLE WARBLER — On April 14, 1974, I observed a Nashville Warbler at Blue Mounds State Park in Rock Co. The bird was seen well at close range and all field marks were noted. According to **Minnesota Birds** by Green and Janssen, this is the earliest date for this species in the state by 11 days. Other unusual birds were also seen at Blue Mounds on this same weekend: Black-and-white Warbler (also earliest date on record), Prairie Falcon, Say's Phoebe and Mountain Bluebird. Therefore, conditions were apparently unusual enough for a Nashville Warbler to turn up so early. **Kim Eckert, Box 47, Garretson, South Dakota 57030.**

A RUFF AT MARSHALL SEWAGE LAGOONS — The date was May 11, 1975, at 7:30 P.M. when I was at the Marshall Sewage Lagoons in Lyon County. These are my notes written on the spot without consulting any reference book. "Saw a shorebird estimated 10 to 11 inches long, larger than Lesser, but, smaller than Greater Yellowlegs. Most like an Upland Sandpiper, but, with less streaked appearance on the back and longer bill. Side of neck and flanks lightly streaked. Underparts whitish. Bill shorter than yellowlegs, but, straight and of similar thickness at base, dark at tip, greenish-yellow at base. Legs olive color to yellow green at the joint. Upper parts generally browner and with narrow light edges to the feathers. The bird gave a single low note on taking flight, almost a grunt. A large white oval showed on each side of the dark tail as the bird flew off." I saw the bird at 25 feet in good light for three to four minutes. My wife also remembered about the white ovals on the birds tail. I know the Ruff well from Europe and Egypt, and believe this bird to be a female of the species. I saw the bird in the evening only, it was gone the next morning. **Henry C. Kyllingstad, 205 6th Street South, Marshall, Minnesota 56258.**

NESTING RED-NECKED GREBES, WALL LAKE, OTTERTAIL COUNTY — For several years I have noted the presence of between one and two dozen Red-necked Grebes frequenting the north shore of Wall Lake. The shoreline within this area is heavily reeded, comprising mainly cattail and bullrush. In addition, two bullrush islands lie offshore some two hundred yards. Between May 18-June 16, 1975, I surveyed the area by canoe to locate and record nestsites. By June 9 I had discovered nine floating nests with a total of 32 eggs in various stages of incubation. On June 15 a rather violent thunderstorm traversed the area. The following day's survey revealed the loss

of 10 eggs. Six eggs were apparently blown from the shallow nests, or possibly rolled overboard by the turbulence of wave action. as they were found on the lake bottom under the nests. Two nests were torn from their moorings among the rushes, their eggs lost, and the nests destroyed. Again, wave and wind action is blamed. Conducting the survey on weekends, the following notes on Red-necked Grebe biology is of interest: normally vocal to a fault, they fall silent during windy, blustery days; mated pairs frequently sally forth on fishing expeditions together, covering the eggs with aquatic plant material, and returning frequently to check the eggs; a grebe returning to a nest for incubation purposes frequently approaches the final fifty feet or so to the nest submerged; when fishing, a grebe may remain submerged for up to forty seconds, ten seconds being the average; measurement between two fixed points indicates an underwater swimming speed of approximately three feet per second. The nest, during initial construction, consists of considerable strands of freshly gathered bullrush interwoven horizontally between emergent aquatic vegetation in a "six star pattern"; the nest proper, placed atop the bullrush mat, and which is slightly depressed to contain the eggs, is constructed of softer plant material such as bladderwort. Grebes appear to vary in their attempts to seriously incubate their eggs: an earnest grebe will routinely cover it's eggs with plant material upon departure from the nest, and will continuously add fresh plant material to the nest; a pre-occupied grebe assumes a more blase attitude, leaving it's eggs uncovered, and disregarding nest repair to a point that the nest wilts, loses it's fresh green hue, and withers to a gray mat; it was found during the survey that such a disregarded nest is much more prone to wave and wind action and subsequent destruction; also, more saturated with water, riding lower to the surface, and being relatively unstable, the chances for egg loss overboard from an untended nest are great. Further observations of Red-necked Grebe biology will be conducted throughout the summer, culminating in a paper to be presented at the December Bell Museum meeting. **Gary L. Otnes, Route 2, Clarkfield, Minnesota 56223.**

(*) **SUMMER Tanager in Roberts Sanctuary** — At about 5:45 P.M., May 11, 1975, we were on the main path of Roberts Sanctuary about 200 yards from the east gate and right at the Wood Duck box the Screech Owl was in a few years ago. A red bird flew past us at about 60 yards and landed in a tree about 100 yards away. The light was good and we used 7 power glasses. We independently observed the following in order as we watched it.

1. It flew directly with no dips or tail flopping and had a short tail. Therefore, it was likely a tanager, so we each put our glasses on it and watched it carefully thru them until the bird flew out of sight in its second flight.
2. Its head shape, body shape, and tail length in flight confirmed it a tanager.
3. As it stalled out it showed plain red, not black wings and tail. Therefore, it was not a Scarlet Tanager, and we momentarily felt we'd been fooled by a Cardinal, so we really scrutinized it as it sat for at least half a minute to a minute. Its head was round. Its bill was tanager-like. It had no black on its face.
4. Its color was redder than the average Cardinal we see, but, less intense than Scarlet Tanagers so we thought it might be our first male Scarlet Tanager of the year.
5. We searched seriously (from north and 30° east of it) as it sat facing

east for black wings and tail. We saw only a gray or shadowed stripe at the primaries. We specifically observed no black where all the other wing feathers were. The tail could not be analyzed separately for color as the bird sat, but, was tanager short. The bird sat at an angle of about 35° to the ground rather than the 45° or more that is usual for a Cardinal on an open perch.

6. It then flew away south to "the ridge." It again showed no black wings and tail crisply set off against red, but, even scarlet color over the entire bird. **Betty and Doug Campbell, 4917 Russell Avenue, Minneapolis, Minnesota 55410.**

CARDINAL OBSERVATIONS IN ROCK COUNTY — Minnesota Birds by Green and Janssen states that while the Cardinal is a rare visitant in the southwestern corner of the state, it is unknown as a breeder here. However, on June 11 and July 5, 1975, I heard and observed singing males at two locations along the Rock River near Luverne. The first was heard but not seen on a June 11 Roadside Breeding Bird Census ½ mile south of Luverne, and the other was both heard and seen by Paul Egeland and me on July 5 two miles northeast of Luverne. Local residents in Luverne report that Cardinals are uncommon but regular visitants to feeders in town, and two were observed on the Dec. 15, 1974, Rock Co. Christmas Bird Count just south of Luverne along the Rock River. The Cardinal is also an uncommon permanent resident in southeast South Dakota, and it is even fairly common in residential areas and riverbottom woods in Sioux Falls, S.D. which is only 15 miles from Rock Co. There is similar Cardinal habitat in Luverne and along the Rock River from two miles north of Luverne south to the Iowa border. It seems likely then that the Cardinal does breed in the southwestern corner of Minnesota. **Kim Eckert, Box 47, Garretson, South Dakota 57030.**

MOURNING DOVE HATCHES ROBIN EGGS — Mourning Doves have been found by Hanson and Kossack (1963), to utilize the nests of other birds, such as the American Robin and Common Grackle, for laying their own eggs. These authors found the doves utilizing nests of other species in 8.3 per cent of 373 nests investigated. Holcomb (1967), found Mourning Doves laying eggs in the nests of robins and Gray Catbirds. However, neither of these authors found Mourning Doves incubating the eggs of other species. On 21 May, 1975, conducting a search for Mourning Dove and Common Grackle nests in a pine plantation near Red Wing, Minnesota, I found a robin nest being occupied by a female Mourning Dove. Upon flushing the dove, the nest was found to contain two robin eggs, and two Mourning Dove eggs. At this time, a female robin was heard giving her alarm call from approximately 10 feet away. On 28 May, the nest was revisited, and found to contain two robin eggs, and two Mourning Dove eggs. The female dove was incubating the eggs, but no robin was observed. On 3 June, the nest was found to contain two newly hatched robins, and two dove eggs. The robins appeared to be one or two days old. The nest was revisited again, on 9 June. At this time, it was found to contain two newly hatched Mourning Doves. The young robins were found dead, beneath the tree.

Two hypothesis can be formulated from these data: first, the female Mourning Dove took over the robin nest, containing two robin eggs, while the female robin was off the nest. Upon her return, the robin found the nest occupied by the female dove, and abandoned her nesting attempt; and secondly, the Mourning Dove and robin were laying eggs simultaneously in the same nest, and the robin abandoned her nesting attempt because of the

presence of the Mourning Dove. These observations were significant in two respects. First, while other observers have found the Mourning Dove to lay eggs in the nests of other species of birds, this is the first record I am aware of, where a Mourning Dove has incubated, and hatched, the eggs of another species. Secondly, Welty (1963), states the Mourning Dove is a determinate layer, laying two, very rarely three eggs per brood. My observations found the Mourning Dove to be incubating four eggs, which is twice as many as they incubate normally. These observations are part of a research project being conducted on the reproductive success of Mourning Doves and Common Grackles in the vicinity of the Northern States Power Company, Prairie Island Nuclear Generating Plant, near Red Wing, Minnesota.

Literature Cited

- Hanson, H. C., & C. W. Kossack, 1963. **The Mourning Dove in Illinois**. Ill. Dept. of Conserv. Tech. Bull. 2. Urbana, Ill. 133 p.
- Holcomb, Larry C., 1967. **Mourning Dove Eggs in Nests of Catbird and Robin**. Wils. Bull. 79(4):450-451.
- Welty, J. C., 1963. **The Life of Birds**. W. B. Saunders Co. Philadelphia, 623 p.
- Craig Faanes, Dept. of Biology, Univ. of Wisconsin, River Falls, Wisconsin 54022.**

BLACK-HEADED GROSBEAK SEEN IN ROCK COUNTY — On June 10, 1975, I was birding on the west side of Blue Mounds State Park checking on a Blue Grosbeak area that had been found the week before. Just as I parked the car and was about to get out, a bird flew toward a small grove of trees nearby and landed on an exposed dead limb about 75 feet away. As I looked at it through my binoculars, I immediately knew that this was something different. It had a black head and uniformly deep buffy brown underparts. At first all I could think of was Orchard Oriole, but the underparts were much too light for it to be an adult Orchard Oriole, and entirely the wrong color for it to be an immature male. I quickly realized that this was probably a Black-headed Grosbeak since nothing else looks anything like it, but since the bird was facing me I could not see the back or wings (all I could see of the wings were the lower edges which were blackish). Just as I was about to get out of the car to get a better look, the bird flew off towards the west and was not seen again. I never thought to study the bird's bill, but it did not impress me as standing out in any way. I was hesitant about identifying it because of only seeing it head on for such a brief time (about 20 seconds), but the following week I was in the Black Hills of South Dakota and studied some male Black-headed Grosbeaks that looked exactly as the bird at Blue Mounds as I watched them from the same angle. They had the same black heads and shade of buffy-brown on the underparts — also their bills did not stand out as an obvious field mark. I was then sure that I had indeed seen a male Black-headed Grosbeak at Blue Mounds the previous week. This would be about the fifth record for this species in the state. **Kim Eckert, Box 47, Garretson, South Dakota 57030.**

SUMMER SIGHTINGS OF WHITE-WINGED CROSSBILL AND BONA-PARTE'S GULL IN SOUTHERN MINNESOTA — On July 5, 1975, Paul Egeland and I were birding along the Rock River in Luverne in Rock Co. The preceding week had been hot and dry so that we had our minds on possible

strays from the Southwest. However, a flock of 10 finch-like birds flew into view and landed in a tall deciduous tree across the river about 200 feet away. The day was overcast and at that distance we could only see that most of the birds were brownish with notched tails, but at least two of them had reddish or pinkish coloration on their head and breast. We first assumed them to be Purple Finch since no other reddish finch seemed likely in southwest Minnesota in July. But we could see that some of the birds had relatively long bills (possibly crossed), so the possibility of Red Crossbills occurred to us. Sure enough, when the flock took off we could hear typical crossbill call-notes — but the notes were much too soft for Red Crossbills (I had just returned from the Black Hills where Red Crossbills were common, so their calls were still fresh in my mind). We then came to the unlikely conclusion that these were White-winged Crossbills. We listened to their calls three separate times before the flock flew off for good, so we are sure of what we heard. We could not see whether their bills were crossed or if they had white wing bars, but in retrospect the dull red or purple of a Red Crossbill or Purple Finch would never have shown up so clearly on an overcast day at the distance we were from the birds — the lighter shade of pinkish-red of the White-winged Crossbill had to be what we saw. This is one of the very few records (if not the first) for this species in summer in southern Minnesota.

On the following day, July 6, Paul and I were birding at Split Rock Creek State Park in Pipestone Co., when we observed a small immature gull flying over the lake about 50-100 feet away. We both immediately identified it as a Bonaparte's Gull because of its dark spot behind the eye, narrow black tail-band and whitish upper wing surfaces mixed with light gray and narrowly edged with black. A Franklin's Gull would have been much more likely here, but an immature of that species is larger with an all dark mantle and a wider black tail-band. According to **Minnesota Birds** by Green and Janssen, this is only the second summer record for the Bonaparte's Gull in southern Minnesota. **Kim Eckert, Box 47, Garretson. South Dakota 57030.**

(* **BRANT AT GRAND MARAIS** — On October 4, 1974, while on a trip along the North Shore of Lake Superior, my husband and I stopped at Grand Marais for a quick hour or two of birding. We were fortunate enough to get a close-up look at a Whistling Swan that had been in the area for several days. Several people were feeding it out of hand as it was quite tame. The swan was causing a small sensation among the local residents, as several of them told us that a Whistling Swan was a very unusual bird for the area. After a quick lunch, we walked over to the Coast Guard Station to check the waterfowl. The sky was overcast and a very cold, strong wind was blowing off the lake. There were no other people in the area at that time (about 1:30 P.M.). We noticed a small flock of immature Snow Geese, several Black Ducks and Mallards, and two very unusual birds that didn't seem to be either ducks or geese. Their necks were shorter than those of the Snow Geese, yet longer than those of the ducks. As they walked around the area their white sides and rump were very obvious. Their heads and necks were very black, the black extending to about the middle of the breast. There was no white on the neck and the belly was light. In checking our field guides (Peterson and *Birds of No. America*) we concluded that they were immature Brants. We then proceeded to the forested point to the north of the Station and observed a mini-warbler, kinglet migration (Ruby-crowned, Golden-crowned, Chestnut-sided Warblers, Yellow-rumped and Yellow Warblers). Returning to the Coast Guard station about 2:00 P.M., we watched the Brants swimming

in the water a few feet off shore and re-confirmed our identification. It was even more obvious that these were Brants as the black of the neck extended to "the water line" as described by Peterson. We had hoped to talk to the Coast Guard personnel at the station, but there was no one there. We thought they could tell us how long the Brants had been in the area. At the time of this sighting, we assumed that Brants were a common migrant on the North Shore, but in checking the MOU Daily Field Check List several months later, found that they were not listed. A check of other sources on Minnesota birds listed them as only casual in Rochester. I reported the incident belatedly to Bob Janssen, and he informed me that it was indeed an unusual sighting for Minnesota. **Mrs. Joanne Dempsey, 1017 West 14th St., Hastings, Minnesota 55033.**

AN EARLY WOOD THRUSH RECORD — On April 9, 1975, I noted two birds off and on from 1:00 to 3:00 P.M. at our feeder in LeSauk Township, Stearns County. The birds were observed from our patio window at a distance of only three feet. I felt the birds were Wood Thrushes and checked Roberts "Birds of Minnesota" and noted that this was a very early date for the Wood Thrush, but, there was no other bird that came close to looking like it, but, the Wood Thrush. One of the birds stayed at the feeder two days and then was seen no more. The birds were "fatter" than Robins, had large breast spots, and more spots than any of the other thrushes, the tail was not rufous. Is it possible it could have wintered in the area and come into the feeders? **Miss Mable Coyne, Box 461, St. Joseph, Minnesota 56374.**

BARROW'S GOLDENEYE RECORD FOR WESTERN MINNESOTA — On April 12, 1975, Paul Egeland, Emmett Hermanson and I were birding in western Minnesota. Due to the late spring most lakes and ponds were still frozen, but, as we approached the Appleton bridge from the Lac Qui Parle County side there was a little open water. We stopped to check some scaup that were on it and noted another bird that was different. The bird was asleep with its head over its back and we were puzzled as to what it was. When it finally raised its head we saw it was a female goldeneye. The thing we immediately noted was the small, short, all yellow bill and our reaction as a group was "look at the beak on that bird. The "position" of the bill on the head seemed different from that of a female Common Goldeneye. We then realized the "position" appearance was caused by the head shape, i.e., the forehead rose at an abrupt angle, rather than slanting more as in the Common Goldeneye. Also, the top of the head appeared flat. Turning to Robbins Field Guide and consulting pictures and text, we confirmed what we had already suspected, that we were looking at a female Barrow's Goldeneye. Although none of us had ever seen a female before, we had seen many Common Goldeneyes and all agreed in our identification. When I got home that evening I looked in Kortright's "Ducks, Geese, & Swans" book which shows a picture of the small, yellow bill, and head shape of the Barrow's, (yellow during breeding season). During the following week I looked at a female Common Goldeneye that I could find locally and noted the different head shape, bill size, and color and saw none that remotely resembled our bird. I feel this is an important observation because most if not all Minnesota records are from Lake Superior and rivers in the Twin Cities area. **Raymond A. Glassel, 8219 Wentworth Avenue South, Bloomington, Minnesota 55420.**

HOODED WARBLER IN LE SUEUR COUNTY — May 8, 1975, I was birding along the Le Sueur River several miles southeast of the town of Le Sueur

at a section of the river known locally as Fox Hollow. This area of the river is flanked by hills covered with many Red Cedars and it runs through a quite deep valley. As I approached the river on foot there is a very steep bank about 15 feet above the river. Looking over the edge I noticed an olive green bird fluttering about the willows almost directly below me. I was attracted to the conspicuous white spots (actually white feather edgings) on the tail, which it kept fanning in the manner of an American Redstart. I knew I was looking at a Hooded Warbler before I had raised my binoculars. Further study revealed it to be a female, lacking the black face pattern. The yellow cheeks and side of head were in bright contrast to the olive green top of head and back. There was a faint black line separating the yellow of the face from the olive of the neck giving a small resemblance to the head pattern of the male. I watched the bird for about 8 to 10 minutes feeding in the low bushes and on the ground as it moved upstream and out of view. I am very familiar with the bird from living in the south and I also saw one near Decorah, Iowa (about 12 miles south of Fillmore Co., Minn.) the previous May. This bird is being reported in Minnesota more frequently in recent years and maybe will be considered a casual species rather than an accidental. **Raymond A. Glassel, 8219 Wentworth Avenue South, Bloomington, Minnesota 55420.**

LITTLE GULLS SEEN AGAIN AT DULUTH — Marj Carr called me from Duluth during the evening of May 28, 1975, stating that a few hours before she had seen two immature Little Gulls at the Port Terminal in Duluth. Early the next morning, May 29, along with Ray Glassel, I was on my way to Duluth. Fortunately I was on two days of vacation. We arrived at the Port Terminal at about 6:45 A.M. It was mostly clear with the temperature in the 50's, calm winds. We found a number of Common Terns which were nesting in the area, plus, a mixed flock of about 200 Ring-billed and Bonaparte's Gulls. There were two Caspian Terns present in the flock also. We spent the next two hours watching this flock and searching for the Little Gulls with no success. About 8:30 A.M. we decided to go over to Minnesota Point and search for the gull and other birds. We did have some luck with shorebirds, seeing a Red Knot and a number of Sanderlings and Ruddy Turnstones, but, no Little Gulls, only a few Herring Gulls and Caspian Terns on the runway of the airport. We returned to the Port Terminal at 9:45 A.M. In the meantime we had been joined by Doug Campbell and Fred Kedney. We found a few more gulls and terns present and almost immediately spotted an **adult** Little Gull. The bird was in full spring plumage, the dark on the head being a different shape than that of the Bonaparte's. The mantle was gray and the tail was white. The Little Gull was "tiny" in comparison to the Bonaparte's it was standing next to. I always thought the Bonaparte's was a dainty gull, but, after viewing this species I now must say the Little Gull is far daintier and probably the most beautiful gull species I have seen. About a half-hour later the flock of gulls took to the air and we got a good look at the dark underwings of the Little Gull. The bird flew out over the bay and we lost sight of it. Part of flock returned and settled to the ground. It was then that we spotted an immature Little Gull in the flock of Bonaparte's. The dark wing band when at rest, the spot on the head, dark top of head and nape and especially the dainty size made it easily separable from the immature plumaged Bonaparte's Gulls. The adult and immature Little Gulls were seen by Jan Green and Marj Carr on this same day and also on May 30. Doug Campbell saw one of the immature birds on June 1. None were reported after this date. This is the third year in a row that this species has

been reported in Duluth since first being seen in May 1973. (See **Loon** 46: 52-57). **Robert B. Janssen, 14321 Prince Place, Minnetonka, Minnesota 55343.**

RUFFED GROUSE IN HENNEPIN COUNTY — In late May, 1975, while photographing in the Morris Baker County Park unit of the Hennepin County Park Reserve, I flushed a male Ruffed Grouse from its drumming log at the edge of a tamarac bog. After several years of extensive use of the county parks, this was my first encounter with a grouse within the park system and the first within Hennepin County. On June 10, I was erecting a photographic blind near where I had seen the drumming male grouse and this time flushed a female Ruffed Grouse and seven newly hatched young. Since then I have frequently seen the adults and three remaining young in the same area and hopefully they will survive to help re-establish a viable Ruffed Grouse population in western Hennepin County. **Jerry Sivets, 468 Virginia Ave., Long Lake, Minnesota 55356.**

A HOODED WARBLER AT ITASCA PARK — On an overcast afternoon, June 14, 1975, I heard and saw a male Hooded Warbler near the campground at the University of Minnesota Field Biology Station in Itasca State Park, Clearwater County. While trying to locate a Ruffed Grouse nest I'd seen the day before, I heard several clear, short songs all ending with an accented, downward slur. My first guess was Chestnut-sided Warbler but through 7x35 binoculars I saw the singer, a male Hooded Warbler. He was perched at the tip of a Red Pine bough about ten feet above the underbrush and 30 feet from me. This striking view lasted only a few seconds as he flew down and out of sight. I had seen Hooded Warblers before, one in Minneapolis, one in east Texas and dozens in Mexico. I knew this bird was far northwest of its normal range and I asked Dr. David Parmelee to verify. But we neither heard nor saw the Hooded Warbler that afternoon. I went to sleep thinking the Hooded had fled. But at five the next morning I woke up to the song of a Hooded Warbler, saw the male from my tent and ran for Dr. Parmelee. Again we failed to see it. Later that morning Dr. Parmelee joined me as I chased the singing male with recording equipment. This bird was incredibly active, continuously singing and moving about, mostly in the underbrush. Finally the warbler paused in the open long enough for Dr. Parmelee to positively identify it as a Hooded. Two days later, Roger Tory Peterson also identified it. The Hooded Warbler was seen daily in the campground area through June 22. **Chuck Neil, 2916 29th Ave. So., Minneapolis, Minnesota 55406.**

EASTERN BLUEBIRD USES CLIFF SWALLOW NEST. — In Vol. 41, Number 3 of **The Loon** I reported an apparent instance of an Eastern Bluebird using a Cliff Swallow nest. What follows is a report of another instance of such a nesting **at the same place** but six years later. On July 2, 1975, I was birding in the vicinity of the Catholic Church in the Pine Beach area of Gull Lake in Cass County, Minnesota. I'd seen Eastern Bluebirds near the church for several days and I hoped to find a nest. I soon spotted a female foraging on the golf course under construction immediately south of the church. She caught an insect or caterpillar and flew up to a nearby telephone wire. From there she flew toward the church and seemed to disappear somewhere along its front wall. When I walked over to the church I discovered that under the eaves and immediately over the front door there were three Cliff Swallow nests. The southernmost of these had an opening that was noticeably larger than normal. As I watched it a young Eastern Bluebird appeared at the en-

trance. It was well fledged and easily identifiable as an Eastern Bluebird. Efforts to spot other young birds or photograph the bird at the entrance were fruitless. I was very curious to see if Cliff Swallows were using the other two nests which were smaller with normal entrances but never saw any evidence of them except "droppings" on the cement door sill. The nests could have been survivors from 1974 as their location was well sheltered from rain and snow. **Charles L. Horn, Jr., 5100 Juanita Avenue, Edina, Minnesota 55424.**

GOLDEN-WINGED WARBLERS NEAR BABBITT, MINNESOTA — A comprehensive study of terrestrial biology is being sponsored and conducted by AMAX Exploration, Inc. on its copper-nickel exploration site six miles southeast of Babbitt, Minnesota. A component of this program is the study of bird populations. On May 29, 1975, a Golden-winged Warbler was heard singing from a small clone of trembling aspens 40-50' in height. The clone is located in a 10-year old clear-cut which has regenerated primarily to aspens 10-15' in height and upland alder. The bird was not identified by sight, but was assumed to be a male. Sight identification was established June 8 when a male was observed singing from a 40' aspen in the same area. A male was again observed singing in this area on June 10, and a second Golden-winged was responding a short distance away in the same habitat. Janet Green (1975. **personal communications**) informed us that Golden-wingeds had been observed breeding at Itasca State Park and in overgrown pastures near Duluth. However, reports from as far north as Babbitt did not exist. The next observation was made June 11. At this time a male and a female were observed together in the canopy of another tall aspen located in the area defined by the previous three observations. The following two weeks were characterized by unseasonably wet and cool weather, and despite numerous visits to the area, no additional observations were made. A final song identification of a Golden-winged was made on June 25 in the same area. No observations of actual Golden-winged nesting activity were recorded. However, five different observations in an approximate 2-acre area in the period May 29 to June 25, including sight identification of a male and female together, seem to indicate Golden-wingeds may have nested in this area. Additionally, the habitat type conforms to typical breeding habitat of Golden-winged Warblers. **P. D. Doran and J. W. Todd. AMAX Environmental Services Group, 4704 Harlan, Denver, Colorado 80202.**

SECOND SUMMER OBSERVATION OF A RUSTY BLACKBIRD — On July 1, 1975, while censusing birds in a recently burned area, I sighted an adult Rusty Blackbird. The burned area is known as the Prayer Lake burn located approximately 3 kilometers north of the end of the Gunflint Trail. The burn started at the southeast corner of Lake Saganaga and spreaded east to Prayer Lake and into Canada. The exact locality of the sighting is 1 kilometer east of the southeast corner of Lake Saganaga and .5 kilometers south of Tenor Lake. The habitat is a small open woodland swamp surrounded by small Black Spruce. The sighting occurred at approximately 10:00 a.m. under excellent light (50% cloud cover) with 7x35 binoculars at a distance of 8-10 meters. The observation period was approximately 1 minute and I was accompanied by my niece, Jodie Ukura. The characteristics of the bird which led to my identification were the following: the size was approximately that of a Red-winged Blackbird, the plumage coloration was blackish-gray throughout with very faint mottling of rust on the wings and back, no iridescence, bill length comparable to that of the Red-winged Blackbird, yel-

lowish eye, and a relatively long tail but not as long as that of the Common Grackle. I have observed the species several times both in spring and fall plumage, the latest observation date being April 20, 1975. The Rusty Blackbird habitat should not be considered endogenous to burned areas because the sighting was not in a homogenous burn, but rather in one of the unburned patches within the burn. The nervous behavior of the bird suggested a nest in the area; however, a 10 minute search failed to reveal any clues. This observation constitutes the second summer observation of the Rusty Blackbird in Minnesota. The only previous observation was by Marj Carr in the Hovland area between Grand Marais and Grand Portage. The species should be looked for in woodland swamps during the breeding season throughout north-eastern Minnesota where it can be overlooked as a small Common Grackle or to the more similar Brewer's Blackbird which shows a distinct iridescence under good light and does not normally occur in wet localities. **Gerald J. Niemi, Biology Department, Univ. of Minnesota, Duluth, Duluth, Minnesota 55812.**

BOOK REVIEWS

Kentucky Birds: A Finding Guide by R. Barbour, C. Peterson, D. Rust, H. Shadowen and A. Whitt, Jr. University Press of Kentucky, Lexington, 1973, 306 pages, 248 photos, 21 maps, \$9.75.

When birders contemplate exotic bird paradises in which to beef up their A.O.U. lifelists, places like Alaska and Texas usually come to mind. But have you ever considered Kentucky? That's right, home of Daniel Boone, derbies, and warblers Oporornis-style. Still not convinced? Well neither am I, but if Ivory-billed Woodpeckers or Carolina Parakeets ever make a come-back to Sassafras Ridge or Buzzard Creek, you'd best be prepared with **Kentucky Birds**.

I don't know many avid readers who are too keen on prefaces, but it's a good idea to pause over this one lest the whole book be misunderstood. There one finds that this book is but "one of a series of introductory guides to the plant and animal life of Kentucky," that this series will "acquaint more people with that (Kentucky's) heritage and encourage its preservation," and that the book is "intended for a general audience — for readers who are not trained in ornithology." In other words, beginners take note, experts forget it. The introduction is

next and begins with a philosophical dissertation about birds and what poet William Blake would think about the book. Blake was one guy in English lit I never could figure out, so the authors here must have something on the ball if they can read his mind. The introduction finally gets down to business in the next section where we learn the size of Kentucky's bird list, definitions of terms, and the usually (but not always) harmful effects of man on birding environments. "Physiographic Regions of the State" follows with a good description of Kentucky's topography, geology and habitats. But it is here we find the statement that "the interior of the state, between the extreme western lowlands and the higher elevations of the Cumberlandlands, constitute virtually a single region," as far as the birds are concerned. One then begins to wonder if birding is all that monotonous what the book is for. The next part mentions endangered and declining Kentucky species, and that much of this is due to things like strip-mining. Finally the introduction concludes by mentioning the glories of Kentucky's ornithological history. Besides claiming J. J. Audubon for its own, the state's glories are but two-fold: the founding of K. O. S. and Mengel's **The Birds of**

Kentucky. Only time will tell if **Kentucky Birds** will rank with the above.

The next hundred pages list all species recorded in the state, including something called a Wavy (so what's wrong with the name Snow Goose?). Field marks, seasonality and habitats are discussed for all except the casuals and accidentals which are printed in smaller type. This small print seems a good technique since it allows for a thorough list uncluttered with unusual species that are of little concern to the beginner. Of the 275 regular species listed, all but 40 are illustrated with color photographs in the next section. Perhaps you can't judge a book by its cover, but many judge one by its pictures, and at first glance this seems like quite a book to have so many color photos. But if you take a second glance the photos become less appealing. Some birds seem about ready to fall over, other birds look so plain and ragged as to be unrecognizable, and some have a background of "sky" that is more Minnesota Vikings-purple than blue. Take a third glance and you'll see a Blackpoll Warbler at a nest (in Kentucky?), a Short-eared Owl with a cage-like wall in the background, and surprisingly "tame" Chimney Swift and Loggerhead Shrike that seem too close for comfort. Well, credit the photographers with some good photos but even better fakery. They do so well at times that it is hard to tell exactly how many of the photos are of mounted specimens. I would guess that fully one-third of them are, but it might be

as many as half. So what's wrong with photos of posed specimens? Two things: 1) some specimens are in such poor shape as to be unrecognizable to all but experts (especially the Red-necked Grebe and several of the warblers); and 2) some of these photographers are passing themselves off as skilled in wildlife photography — an insult to people like Marj Carr and Dick Behrens who can get a good shot of a bird without the help of a museum. Still, there are a lot of pictures here, and if you don't take a fourth glance, \$9.75 seems like a fair bargain.

The last section is "A Guide to Bird Finding Areas." Here you will find 47 birding locations, all with accurate and clear directions and 18 of them accompanied by county maps of excellent detail. One has to wonder, though, if these really are the best birding spots. Several area write-ups say the birding isn't that good there or that the birds are no different there than anywhere else. Also the areas included are "selected to provide a cross-section" of habitats, not on the basis of how good the birding is.

So \$9.75 will buy you a well-written guide to birding areas, a complete state list of birds, and a lot of pictures to look at and wonder about. There is little doubt that Kentucky birders would want this book, but until the Carolina Parakeet flocks return to Buzzard Creek, not too many out-of-staters will be flocking to Kentucky or to **Kentucky Birds**.

— Kim Eckert

A Field Guide to the Birds of Galapagos by Michael Harris, Taplinger Publishing Co., 200 Park Ave., New York, New York 10003. 1975. \$10.95.

One would think that a place as remote as the Galapagos Islands would hardly be visited by birders but this is not the case. The birds are ornithologically well known as a result of many expeditions since Darwin's, on the Beagle. Bird tours quite often include the Galapagos and those people who are planning to go (Pieper?) there

some day and those people who have already been there (Pratt, Herz) will welcome this book.

Mr. Harris takes off on an island tour and shows us where to look and what to look for on each island. In addition he devotes several chapters to plant zonation, birding seasons, ecology, and conservation as well as a chapter on migrants. He outlines the principle breeding areas of each species and the twelve black and white and color plates illustrate many spe-

cies which have not been illustrated before. All endemics are illustrated. In the species section of the book each bird is described and its distribution as well as voice, food, breeding season and flight is detailed. Those of us with a yen for world travel to see birds will want this book and will surely want to visit the Galapagos some day with this book in hand.

Bill Pieper

Birds Around the World by Dean Amadon, drawings, 178 pp. The Natural History Press, 501 Franklin Avenue, Garden City, New York 11530. 1966. \$3.95.

I don't even know if this little book is still in print or not, probably not. I guess I picked it up off a bargain book table for 50c a few months ago. I started reading it the other day and found it a very enlightening book even though it was published back in 1966. A lot of "water has gone under the bridge" since that time but the basic principles that Dean Amadon puts forth are still basically sound.

Subtitled "A Geographical Look at Evolution and Birds" the book mainly deals with why birds are distributed as they are. Some of the chapter titles are: "The Effect of Physical Barriers," such as water which has played a large part in determining the distribution of

land birds. An important statement in this chapter is, "All birds tend to spread and disperse somewhat, especially the young individuals which, in many species, show no attachment to a particular locality until after they have nested for the first time." For those of us birders who like to look for vagrant species here is the simple answer as to why they occur from time to time.

Other chapters deal with "Ecological Requirements" such as food, water, shelter, migration and niche, "Harmful and Beneficial Factors" such as predators, man, climate, etc. The final four chapters deal with "Species Dynamics and Distribution," "Geographical Patterns of Distribution" and "Ecological Systems of Classifying Distribution."

The book is illustrated with 30 line drawings which help to explain the basic principles the author is trying to put forth.

If you want a couple of hours of enjoyable reading and come out of the experience understanding a little better of the why of where birds are found pick yourself up a copy of this book. You will probably have to search quite hard but if you can't find one I would be glad to loan you my copy. I want it back, however, because this book is a "mini-classic" in my opinion.

Bob Janssen

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** need articles, shorter "Notes of Interest" and black/white photos. Photos should be preferably 5x7 in size. Manuscripts should be typewritten, double-spaced and on one side of the 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 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 Mrs. Janet Green. See inside front cover.

TABLE OF CONTENTS

SORA — OTTERTAIL CO. — 6-16-74 Photo by William H. Wyatt	Front Cover
THE PRESIDENT WRITES	107
MINNESOTA NEST RECORDS OF THE BROWN CREEPER by David F. Parmelee	108
OBSRVATIONS AT THREE BROWN CREEPER NESTS IN ITASCA STATE PARK IN 1973. by Daniel J. Braaten	110
THE 1973 CHRISTMAS COUNT by Manley Olson	114
THE WINTER SEASON (Dec. 1, 1974 - Feb. 28, 1975) by Kim R. Eckert	120
NOTES OF INTEREST	129
BOOK REVIEWS	145

The
LOON

WINTER 1975

VOLUME 47 — NUMBER 4



The LOON Minnesota's magazine of birds and nature, is published four times each year by the **Minnesota Ornithologists' Union**, the statewide bird club. Permanent address: J. F. Bell Museum of Natural History, University of Minnesota, Minneapolis 55455. Anyone interested in birds and nature 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: Karol Gresser, 8850 Goodrich Ave., Bloomington, Minnesota 55437. To join the MOU and receive both MOU publications, send Mrs. Gresser \$5 for a regular yearly subscription. Or other classes of membership that you may choose are: Family \$6 yearly; Sustaining \$25 yearly. Life \$100. Also available from Mrs. Gresser: back issues of **The Loon** (\$1.50 each ppd.) and MOU checklists of Minnesota birds (minimum lots of 20 for \$1.50 postage paid). Gifts, bequests, and contributions to the MOU Endowment Fund should also be sent to Mrs. Gresser.

EDITOR OF THE LOON: Robert B. Jansson, 14321 Prince Place, Hopkins, Mn. 55343. (phone 938-7464). The editor solicits articles, short notes, and black/white illustrations about birds and nature. See back cover for details.

"The Season" section of **The Loon** publishes reports of bird sightings throughout Minnesota. We particularly desire 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," Mrs. Janet Green, 9773 North Shore Drive, Duluth, Mn. 55804.** (area 218, phone 525-5654).

EDITOR OF THE MOU NEWSLETTER: Mrs. Marlyn Mauritz, 6810 Tecumseh Lane, Excelsior, Minn. 55331. Publishes announcements and reports about activities of the MOU and its affiliated clubs. (Club officers should keep both MOU editors informed.)

MOU OFFICERS

PRESIDENT: Jack Mauritz, 6810 Tecumseh Lane, Excelsior, Minn. 55331

FIRST VICE PRESIDENT: Henry Kyllingstad, 205 6th St. S., Marshall, Minn. 56258

SECOND VICE PRESIDENT: Wally Jiracek, 5814 Portland Ave. S., Minneapolis, Minn. 55417

SECRETARY: Jo Blanich, Box 96, Crosby, Minn. 56441

TREASURER: Karol Gresser, 8850 Goodrich Ave., Bloomington, Minn. 55437 (phone 612-831-5714).

MOU COMMITTEE CHAIRMEN

RESEARCH AND RECORDS: Mrs. Janet C. Green, 9773 North Shore Drive, Duluth, 55804. **FIELD TRIPS:** John Telfer, 5717 Hewkes Drive, Minneapolis 55436. **MEMBERSHIPS:** Mrs. George Stanley, 213 Janalyn Circle, Minneapolis 55416. **NOMINATIONS:** Marvin Borell, 5808 Portland Ave., Minneapolis 55417. **UNIVERSITY COORDINATION:** Dr. Harrison Tordoff, Bell Museum of Natural History, Univ. of Minnesota, Minneapolis 55455. **NATIONAL AUDUBON COORDINATION:** Ed Brigham, Rt. 4, Red Wing 55066. **PUBLICITY:** Kathy Heidel, Rt. 5, Box 108, Excelsior 55331. **THOMAS S. ROBERTS AWARD:** Oscar Johnson, 7733 Florida Circle, Minneapolis 55428. **FINANCE AND ENDOWMENT:** Mrs. Mary Wyatt, 205 Oak Manor Ct., Fargo, North Dakota 58102. **HOT LINE:** Roy Zook, 5520 Warwick Place, Minneapolis 55436. **SLIDE FILE LIBRARY:** Wally Jiracek, 5814 Portland Ave., Minneapolis 55417. **HISTORIAN:** Mrs. Betty Campbell, 4917 Russell Ave. S., Minneapolis, 55410.

AFFILIATED CLUBS OF THE MINNESOTA ORNITHOLOGISTS UNION

AGASSIZ AUDUBON SOCIETY

President: Mr. Gladwin Lynne, 404 East Prairie Ave Warren, Minn. 56716

ALBERT LEA AUDUBON SOCIETY:

President: Mr. Donald Chryst, 2012 Capitol Lane, Albert Lea, Minn. 56007

AUDUBON CHAPTER OF MINNEAPOLIS

President: Mr. Harvey Djerf, 217A Trenton Lane N., Minneapolis, Minn. 55427

AUDUBON SOCIETY OF FARGO-MOORHEAD

President: Mr. William Wyatt, 205 Oak Manor Ct., Fargo, No. Dak. 58102

AUSTIN AUDUBON SOCIETY

President: Dr. Howard L. Brockman, Box 8, Austin, Minn. 55912

AVIFAUNAL CLUB

President: Mr. Harding Huber, 2906 63rd Ave. N. Brooklyn Center, Minn. 55430

COTTONWOOD COUNTY BIRD CLUB

President: Lester Rupp, Mountain Lake, Minn. 56159

DULUTH AUDUBON SOCIETY

President: Joseph Gallian, 5212 Otsego St. Duluth, Minn. 55804

ECOWAY AUDUBON OF PINE RIVER

President: Terry McGoughy, Route 1, Pine River, Minn. 56474

GRINDSTONE LAKE AUDUBON SOCIETY

President: Ted Lundberg
Hinckley, Minn. 55037

HIAWATHA VALLEY BIRD CLUB

President: Andy Buggs
Minnesota City, Minn. 55959

MINNEAPOLIS AUDUBON SOCIETY

President: Mrs. Ross Garrett, 6600 Southcrest Dr., Minneapolis, Minn. 55435

MINNESOTA BIRD CLUB

President: Mr. Manley Olson, 1974 W. Summer St. St. Paul, Minn. 55113

MINNESOTA RIVER VALLEY AUDUBON CLUB

President: Mrs. John Eliason, 8851 River Ridge Rd., Bloomington, Minn. 55429

MISSISSIPPI HEADWATERS AUDUBON SOCIETY

President: Dr. Adela Elwell, Box 93, Bemidji, Minn. 56601

ST. PAUL AUDUBON SOCIETY

President: Mrs. Isabel Goldberg
1915 Palace Ave.
St. Paul, Minn. 55105

ZUMBRO VALLEY NATURE CLUB

President: Ervin Schmidt, 3920 Kahoun Ct. S. E. Rochester, Minn. 55901

ARTHUR A. ALLEN AWARD GIVEN TO WALTER J. BRECKENRIDGE

The Cornell Laboratory of Ornithology, through its Administrative Board, established an award in 1966 in memory of Arthur A. Allen, eminent ornithologist and teacher at Cornell University for nearly fifty years. The award, in the form of a medal, is given annually in recognition of distinguished service to ornithology.



Dr. Allen's early scientific studies developed significant lines of research, and his teaching inspired many of his students to make ornithology their profession. At the same time, his popular writings, photography, and public lectures, and his use of graphic art and sound recording drew attention to birds so effectively that countless people discovered in ornithology a challenging and rewarding avocation.

It is in commemoration of Dr. Allen's far-reaching contribution in widening popular interest in birds that the Laboratory makes this award.

The Administrative Board of the Laboratory of Ornithology has chosen Walter J. Breckenridge to be the recipient of the Allen Medal at its ninth annual presentation.



The life of Walter Breckenridge has been an inseparable blending of science and art. Throughout his long career as a naturalist, he has been associated with the University of Minnesota's James Ford Bell Museum as Preparator, Curator, and Director for 24 years until his retirement in 1970. His talent for interpretation, his artistic taste, and his scientific soundness have left an indelible imprint on the museum — a legacy of ongoing instruction to countless people. Wielding brush and pen primarily for pleasure, his illustrations have graced the pages of many publications through the years; and utilizing a camera to enable others to share his vision, he has created superb films which have carried his concerned appreciation of nature to a vast audience.

The award was presented to Dr. Breckenridge on October 4, 1975 at Cornell University, Ithaca, New York.

THE PRESIDENT WRITES . . .

First and of highest importance in any organization are its people. I think MOU has been extraordinarily fortunate in the people it's attracted to membership. Especially, this has been true of the people I've encountered who are willing to work for "the cause." I'd point with real pride of acquaintance to those who have shared jobs with me over the last several years. The same pride applies to those who I've known that MOU has honored with the T. S. Roberts Award. All in all, they've been a hard working, far-sighted, and highly motivated group of people. They bring a good deal of credit to our organization.

Now, people from outside our area are beginning to recognize the work of Minnesota's finest. The facing page describes one. Dr. Walter Breckenridge has been a staunch backer and a motivating leader to MOU. His work and dedication have been felt outside Minnesota as well and in recognition of that he's received the Dr. Arthur A. Allen Award from Cornell University.

National significance notwithstanding, I feel the award was deserved by Breck as much for his personal efforts as for any public effect of his work. Let me give you an example. When interviewing for my job at the then Carver Nature Center, I was carried around town to more offices and faces than I can remember. One visit stays clearly in my mind. I was introduced to Breck in the brightly sunlit office of the Bell Museum. For the next hour, I experienced a quiet, pleasant, give-and-take discussion that ranged throughout my limited field experience, stretched my knowledge in every area to a maximum, and demonstrated to me how much it was possible to learn about Minnesota's natural history. That discussion was the first of many of the same kind, all of which I've thoroughly enjoyed, and enough of which I've never experienced!

Of course I'm saying congratulations to Breck. I don't know why it took Cornell so long to recognize his worth. I've known about it for years and I feel perfectly safe saying the same for the other members of MOU!

Jack Mauritz

THE 1975 SPRING MIGRATION AT THE COLD SPRING HERON COLONY

by Rick Piefer

This report is one in a continuing series on the spring migration of Great Blue Herons at the Cold Spring heron colony, Cold Spring, Stearns County, Minnesota. Location, map of the study area, methods, and materials are described in a previous study by Partch (1971).

As early as 5 March the nests in the colony trees were free of snow, and ready for occupation. I spent considerable time in the field in the vicinity of the colony from 23 February through 17 March without sighting a heron. Therefore, I feel that the first report of a returned heron to the colony represents the first returned migrant.

The Denn family, who live just west of the colony on the Sauk River, reported the first returning heron at 19:10, 18 March, 1975. I had been in the field all day in the vicinity of the colony, but observed no herons. On the next day there were eight birds in the trees of the colony, and the following day twenty-three.

The average high temperature for the first fifteen days of March was 24.5°F. Then on 16 March the area experienced its first temperature above 40°F. (Figure 1). The maximum temperatures for 16 to 21 March remained near or above forty degrees. Associated with this warming trend were winds out of the south-southeast. On 23 March, a blizzard struck the area with high winds and heavy snow, and continued until 28 March. Though the temperatures rose considerably on 27 and 28 March, a few days after the blizzard began, the high winds that accompanied the storm persisted and increased in intensity. These conditions seemed to suppress re-occupation of the colony by the birds. Following the blizzard, from 30 March to 3 April, winds decreased but temperatures re-

mained below 30°F. These conditions also seemed to depress re-occupation of the colony. From 4-8 April there was a significant re-occupation of the trees at approximately the same density as during the previous high on 22 March, though the winds had again increased in velocity. During this period, the temperature approached 40°F. It may be that the birds recorded during 4-8 April represent only those individuals that were present during 18-22 March.

With the temperature near 40°F. and the wind direction from the east and south, it appears that the rapid heron increase recorded from 10-14 April represents later returning migrants that were held at locations further to the south near the 40°F. isotherm. During 18-19 April, the area experienced high winds out of the northwest which seemed to suppress temporarily the rapid build up that the colony was undergoing from 10-14 April. This decrease in the rate of occupation was short in duration because of the sudden decrease in wind velocity and the great elevation in daily maximum temperatures (Figure 1). On 22 April the number of returned birds was well over 1000 and an accurate count of the herons occupying trees could not be made.

During periods of inclement weather when the returned birds were not occupying the colony trees, they spent considerable time congregated just south of the colony in a flood plain meadow, and at two locations in the river. One of the river locations was approximately 1000 feet to the east of the colony, and the other was below the dam at Cold Spring, 2 miles to the southwest of the colony. Foraging was rare in these groups, and inactivity seemed to be the rule rather than the exception (Figure 2).

WIND DIRECTION

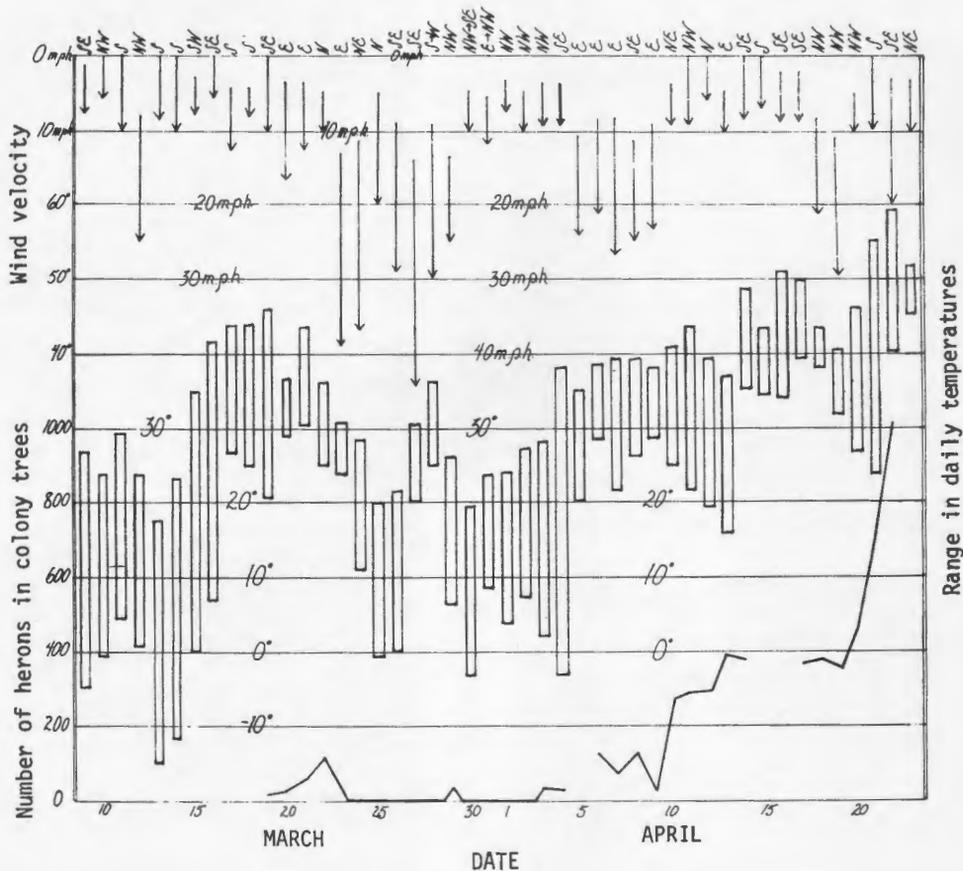


Fig. 1. Observed Great Blue Heron numbers at the Cold Spring Heron Colony and weather data, 9 March to 23 April, 1975.



Fig. Great Blue Herons congregated in the shallows of the Sauk River, east of Cold Spring, Minnesota, 28 March, 1975.

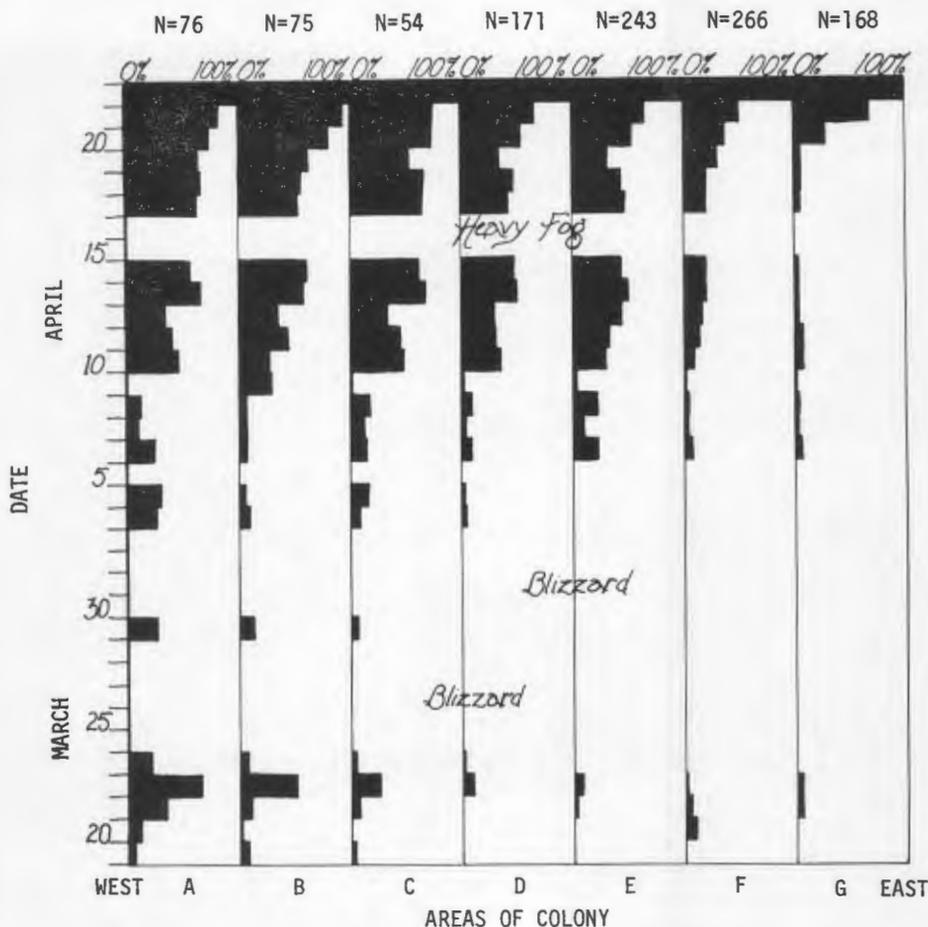


Fig. 3. Birds observed on a daily basis from 18 March to 22 April, 1975. Shaded area indicates percent of final population in specified areas on any given day.

The majority of early returnees occupied the west end of the colony (Figure 3). This trend remained in effect until the total number of returned birds counted in the colony exceeded 500 on 20 April. The eventual homogeneous distribution of birds throughout the colony, after 20 April, may indicate a depletion of prime nest availability, and severe competition for remaining nests. The first copulation was observed in area "A" (extreme west end of the colony) on 22 March. Individuals that return early may be gaining some reproductive advantage (differential productivity) over late nest-

ing birds. First choice of nest sites and foraging areas, less stored energy expended prior to the onset of breeding activity, or some other factor(s) may be responsible for giving an advantage to early returned migrants. I thank professors A. H. Grewe and M. L. Partch, St. Cloud State University for assistance in preparing this article.

Literature Cited

- Partch, M. 1971. The 1971 Spring Migration At The Cold Spring Heron Colony. *The Loon*. Vol. 43(3):75-77.
 Department of Biology,
 St. Cloud State University,
 St. Cloud, Minnesota 56301.

MAY BIG DAY IN SOUTHERN ST. LOUIS COUNTY

by Gerald J. Niemi

On May 28, 1975 a Big Day was conducted in conjunction with Dr. Pershing Hofslund's advanced ornithology class. Nineteen hours of marathon birding restricted to southern St. Louis County yielded 139 species. Participants of the count were Steve Bassa, Bernadette Dubos, Brad Henspeter, Richard Price, Dave White, Dr. Hofslund, and myself. I was placed in charge of developing the routes and to guide the count in its entirety. We followed the rules established for a Big Day count by Eckert (*Loon* 45:7-10). Our count was reduced to a limited area of the state and county, thus, comparison of our total to those of Eckert (*Loon* 45:7-10; *Loon* 46:123-125) should be made with caution and respect to the size of the count area. Information including total species list broken into families is given in Table I. A complete list of the species seen or heard on the count day can be obtained from the author.

To my knowledge this is the first May Big Day count conducted in the Duluth area for a first time effort a list of 139 species is excellent, but it certainly does not approach the possible list for the described area. I fully believe a list of over 160 species is possible. As stated by Eckert (*Loon* 45:7-10), an all day count involves strategy. The count day should be selected at the last possible moment based on weather and peak migration periods. Unfortunately, our count day was a reflection of getting seven people together with minimum conflicts rather than strategy. The count day is actually late for the Duluth area. A day selected a week earlier would generally be more productive; however, this year may be an exception because of a late peak in shorebirds. The gains re-

flected in 18 total species of shorebirds may have been lost in many other groups of birds including the ducks, hawks, vireos, warblers, and sparrows.

The count missed a number of relatively common species which certainly should be recorded in subsequent counts. A list of these species is given below. The count was not devoid of some specialties which certainly deserve mention. Early in the count which started at 2:30 a.m., Brad Henspeter and I heard a Saw-whet Owl call on our very first pre-scouted location. Shortly thereafter, at another staked out location on the Ryan Road north of French River, we heard the Whip-poor-will. As dawn approached, we were well into birding the diverse vegetation of Lakewood and Normanna townships. In this area we heard or saw among many other species the Upland Sandpiper, Pileated Woodpecker, Connecticut Warbler, and the sometimes elusive Vesper Sparrow. We continued our way to the north shore of Lake Superior. The lake was very disappointing partially due to thick fog which limited visibility out into the lake to about 100 yards. Very few birds were sighted and no specialties were noted. We proceeded to the eastern edge of Duluth and birded our way to the UMD campus to meet our remaining classmates and professor by 8:30 a.m. with a not unimpressive list of 89 species.

The counters proceeded to Minnesota Point where the entire class birded for three hours. In this area we sighted most of our shorebirds, gulls, and terns. Among the specialties included a late Greater Scaup, Red Knot, White-rumped Sandpiper, Forster's Tern, Horned Lark, and a very cooperative Water Pipit. Most of the class

had to return to school for classes at 11:30 a.m., so Dr. Hofslund, Dave White, and I decided to make a trip to the western bay area. Our first stop was at 27th Avenue West which is a dilapidated gravel, snow, and dump area. Though the area was short on cleanliness, the bird species list was long. In one-half hour we added 10 species to a list which was beginning to be very difficult to bolster. Among the 10 species were the Green Heron, a surprising Gadwall, a late female Bufflehead, and two shorebirds missed at Minnesota Point the Lesser Yellowlegs and Semipalmated Plover. As we left 27th Avenue, we birded through much of western Duluth and returned to UMD about 3:00 p.m. with very few added species. This portion of the day was very slow and as suggested by Eckert (Loon 45:7-10) traveling should be done at this time.

After dropping meeting-bound Dr. Hofslund and Dave White off at UMD, I proceeded to quickly analyze our species list which now had 124 species. I decided to make a final swing up the Jean Duluth Road across to the Rice Lake Road to Island Lake where I have breeding bird census plots established. During this drive I chased up a LeConte's Sparrow just off the Jean Duluth Road. I added an additional 13 species

mostly on my censusing plots where I knew the exact localities of territories of the following species: Red-breasted Nuthatch, Golden-crowned Kinglet, Magnolia Warbler, Black-throated Green Warbler, and Scarlet Tanager among those which had eluded us all day. As I left my census plots, there was still enough time for me to make a few random stops on my drive back to Duluth. I luckily stopped at the right locations and finally registered the Short-billed Marsh Wren and Great Blue Heron. Unfortunately, 140 species (my personal goal for the day) was not reached; however, I am very optimistic following this initial trial run that next year the 150 if not the 160 species barrier will be attained.

Species not recorded on count day but expected on subsequent counts: Double-crested Cormorant, Green-winged Teal, Hooded Merganser, Common Merganser, Sharp-shinned, Red-tailed, and Marsh Hawks, Osprey, Ring-necked Pheasant, Black Tern, Yellow-bellied and Olive-sided Flycatchers, Gray Jay, White-breasted Nuthatch, Brown Creeper, Solitary Vireo, Golden-winged, Tennessee, Cape May, Yellow-rumped, Bay-breasted, and Pine Warblers, Northern Parula, Yellow-headed Blackbird, Cardinal, Rufous-sided Towhee, and Lincoln's Sparrow.

TOTAL SPECIES LIST FOR MAY 28, 1975 BIG DAY COUNT FOR SOUTHERN ST. LOUIS COUNTY CONDUCTED BY ECOLOGY OF BIRDS CLASS UNDER DR. P. B. HOFSLUND

Species	Total Individuals	Species	Total Individuals
Common Loon	16	Greater Scaup	9
Horned Grebe	5	Lesser Scaup	30
Pied-billed Grebe	1	Bufflehead	1
Great Blue Heron	1	Red-breasted Merganser	19
Green Heron	1	Broad-winged Hawk	1
American Bittern	1	American Kestrel	1
Mallard	20	Ruffed Grouse	2
Black Duck	1	Sora	4
Gadwall	1	American Coot	1
Blue-winged Teal	14	Semipalmated Plover	1
Northern Shoveler	1	Piping Plover	2
Wood Duck	3	Killdeer	25
Ring-necked Duck	10	Black-bellied Plover	3

Species	Total Individuals	Species	Total Individuals
Ruddy Turnstone	75	Common Raven	2
American Woodcock	3	Common Crow	20
Common Snipe	2	Black-capped Chickadee	6
Upland Sandpiper	2	Red-breasted Nuthatch	1
Spotted Sandpiper	20	House Wren	3
Solitary Sandpiper	1	Winter Wren	1
Lesser Yellowlegs	4	Short-billed Marsh Wren	1
Red Knot	6	Gray Catbird	8
White-rumped Sandpiper	1	Brown Thrasher	4
Baird's Sandpiper	3	American Robin	30
Least Sandpiper	1	Wood Thrush	2
Dunlin	15	Hermit Thrush	1
Semipalmated Sandpiper	50	Swainson's Thrush	3
Sanderling	50	Veery	15
Herring Gull	150	Eastern Bluebird	3
Ring-billed Gull	300	Golden-crowned Kinglet	1
Bonaparte's Gull	6	Ruby-crowned Kinglet	3
Forster's Tern	1	Water Pipit	1
Common Tern	30	Cedar Waxwing	1
Caspian Tern	15	Starling	50
Rock Dove	30	Red-eyed Vireo	10
Mourning Dove	5	Warbling Vireo	2
Black-billed Cuckoo	1	Black-and-white Warbler	2
Great Horned Owl	1	Nashville Warbler	5
Barred Owl	1	Yellow Warbler	10
Saw-whet Owl	1	Magnolia Warbler	1
Whip-poor-will	1	Black-throated Green Warbler	2
Common Nighthawk	2	Blackburnian Warbler	2
Chimney Swift	4	Chestnut-sided Warbler	15
Ruby-throated Hummingbird	2	Ovenbird	10
Belted Kingfisher	4	Northern Waterthrush	1
Common Flicker	3	Connecticut Warbler	1
Pileated Woodpecker	1	Mourning Warbler	2
Red-headed Woodpecker	1	Northern Yellowthroat	10
Yellow-bellied Sapsucker	2	Wilson's Warbler	2
Hairy Woodpecker	1	Canada Warbler	1
Downy Woodpecker	1	American Redstart	15
Eastern Kingbird	10	House Sparrow	10
Great Crested Flycatcher	5	Bobolink	6
Eastern Phoebe	3	Eastern Meadowlark	4
Alder Flycatcher	2	Western Meadowlark	1
Least Flycatcher	10	Red-winged Blackbird	20
Eastern Wood Pewee	1	Northern Oriole	4
Horned Lark	2	Brewer's Blackbird	15
Tree Swallow	50	Common Grackle	10
Bank Swallow	20	Brown-headed Cowbird	30
Rough-winged Swallow	4	Scarlet Tanager	1
Barn Swallow	6	Rose-breasted Grosbeak	5
Cliff Swallow	20	Indigo Bunting	1
Purple Martin	40		
Blue Jay	15		

Species	Total		Species	Total	
	Individuals			Individuals	
Evening Grosbeak	6		Dark-eyed Junco	2	
Purple Finch	1		Chipping Sparrow	5	
Pine Siskin	2		Clay-colored Sparrow	3	
American Goldfinch	15		White-throated Sparrow	10	
Savannah Sparrow	10		Swamp Sparrow	4	
LeConte's Sparrow	1		Song Sparrow	15	
Vesper Sparrow	1				
			TOTAL- 139 species	1587	

Table I - Information related to May 28, 1975 Big Day count
in southern St. Louis County

LOCATION: 46°45'S. to 47°15' N. latitude
91°45'E. to 92°15' W. longitude
- including portions of Gneson, Normanna, Lakewood, Rice Lake,
and Canosia Townships plus the Duluth city limits

WEATHER: Temperature rane - 49° - 66°F.
Wind - Average from the Southeast at 9.3 mph.
Precipitation - light drizzle from 2:30 to 6:10 a.m.,
total 1/10 inch for the day
Cloud cover - Average of 80% for the day

MAN-HOURS: 44
MILES BY CAR: 139
MILES WALKED: 3

FAMILIES	TOTAL SPECIES	TOTAL INDIVIDUALS
Loons, grebes	3	22
Hérons, etc.	3	3
Ducks	11	109
Hawks	2	2
Gallinaceous birds, rails, coot	3	7
Shorebirds	18	264
Gulls, terns	6	502
Doves, cuckoos	3	36
Owls	3	3
Goatsuckers, swifts, hummingbird, kingfisher	5	13
Woodpeckers	6	9
Flycatchers	6	31
Horned lark, swallows	7	142
Jay, crows, chickadee, nuthatch	5	44
Wrens	3	5
Mimic thrushes, thrushes	8	66
Kinglets, pipit, waxwing, Starling	5	56
Vireos, warblers	17	91
House Sparrow, ictterids	9	100
Tanager, finches	7	31
Sparrows	9	51
TOTAL	139	1587

Biology Department, University of Minnesota-Duluth, Duluth, Minnesota 55812

SPRING SEASON - MARCH 1 TO MAY 31, 1975

by Terry Savaloja

The spring of 1975 was slow in coming to Minnesota and when it finally did come, it was very wet. April started out with a record low temperature (9°) in the Twin Cities. Most of the northern part of the state was snow covered with snow falling on several days during the first ten days of April. Heavy rains fell over most of the state during the last half of the month and the Twin Cities closed out April with 5½ inches of rain and only four days of sun. This was the wettest month on record for the Twin Cities.

The rains continued into the first part of May, but then the weather changed drastically. Hot, humid conditions prevailed with a record high (91°) on May 20th in the Twin Cities. The heavy rains continued into the last part of May, a record 1½ inches fell in 25 minutes in Minneapolis on May 23rd.

Summary: A total of 300 species was recorded by 78 observers.

A pair of Red-throated Loons was observed courting off the mouth of the Devil's Track River, Cook Co., for the only report of this species. Both Western and Red-necked Grebes were reported from the eastern part of the state. In the heron family, the Little Blue Heron was reported twice, the Cattle Egret nine times, Yellow-crowned Night Heron once, and there were two reports of White-faced Ibis.

Mute Swans were again reported, one report of Cinnamon Teal, Ruddy Ducks reached the east central part of the state, and the Agassiz crew once again came through with those good waterfowl counts. The big news in the hawks was the Mississippi Kite observed along the Root River, Olmsted Co. Prairie Falcons and Ferruginous Hawks were both reported once and the Red-shouldered Hawk still appears

to be expanding. Yellow Rails were back to Aitkin Co. by late April and the King Rail in Clearwater Co. was a little out of its "normal" range. The American Woodcock is still expanding westward, Whimbrels were reported four times, two of these away from Lake Superior. Minnesota's fourth record of a Ruff (Reeve) was obtained at the Marshall sewage lagoons and the American Avocet in Aitkin Co. was out of its normal range. Gulls and terns made a good showing in the department of rarities with Minnesota's first record of a California Gull in the southwest; this bird was long overdue in the state, Thayer's Gulls were reported twice. Little Gulls again made an appearance in Duluth and a Least Tern was seen and photographed at Marshall. A pair of Burrowing Owls showed up in Lincoln Co. The Lewis' Woodpecker stayed until 5-1 and Northern 3-Toed Woodpeckers were reported three times. A Carolina Wren was observed in Hennepin Co. for the first report in several years. The Mockingbird was reported nine times and two Varied Thrushes were reported into early April. Mountain Bluebirds were recorded twice, Bell's Vireos were reported three times, Hooded Warblers twice, Worm-eating and Kentucky Warblers once. The Blue-winged Warbler was reported ten times and the Brewster's hybrid was reported twice. The Summer Tanager was reported from Hennepin Co., this is a casual species in Minnesota. Blue Mounds came through with the Blue Grosbeaks again this year and Lark Buntings were seen in the state for the first time in several years. Henslow's Sparrows were reported once and the Smith's Longspur was reported twice. The Chestnut-collared Longspur was also reported twice.

Common Loon

Early south 4-8 Stearns NMH; 4-11 Wabasha WDM; 4-11 Dakota ETS; 4-12 Washington BL and Henepin JC & DY; early north 4-15 Becker TRS; 4-18 Morrison LSR; 4-19 St. Louis MMC, JCG; peak 4-28 Aitkin (87) JB, TS.

Red-throated Loon

5-16 Cook (2) MMC — only report.

Red-necked Grebe

Early south 4-12 Anoka SC; 4-17 Stearns NMH; early north 4-12 Lake Superior GJN; 4-12 Cook RBJ; 4-16 St. Louis JCG; 4-28 Aitkin (9) JB, TS.

Horned Grebe

Early south 4-7 Olmsted VH, JF; 4-10 Hennepin BDC; 4-12 Anoka SC; 4-12 Hennepin PVK; early north 4-14 St. Louis JCG; 4-16 Marshall AR; 4-19 St. Louis MMC, GJN; Peak 5-2 Marshall (243) AR.

Eared Grebe

30 reports of 61 individuals. Early south, 3 reports on 4-13; early north 4-20 Clay ABNGP; 5-1 Becker TRS; 5-6 Lake Superior GJN; two other reports from NE, 5-28, 29 Lake Superior (1) MMC, BDC.

Western Grebe

Early south 4-20 Big Stone DWS; 4-25 Lac Qui Parle KE; 4-27 Lac Qui Parle RBJ; early north 4-24 Cook HFC; 5-2 Marshall AR; 5-3 Cook HT; peak 5-31 Pope (40+) BAH.

Pied-billed Grebe

Early south 3-21 Olmsted JF; 3-22 Scott RBJ; 3-23 Olmsted VH; early north 4-12 St. Louis MMC, GJN; 3 reports on 4-14.

White Pelican

Early south 4-12 Big Stone DWS; 3 reports 4-13; early north 4-15 Becker TRS; 4-27 Marshall AR; 4-27 Traverse PG; peak 5-17 Lyon (200+) HCK.

Double-crested Cormorant

Early south 4-12 Lac Qui Parle RAG; 4-13 Lyon HCK; 4-19 Pipestone KE and Lac Qui Parle PVK and Nobles RBJ; early north 4-19 St. Louis JCG; 4-22

Marshall AR; 4-23 Morrison LSR; peak 5-3 Pope (300+) BAH.

Great Blue Heron

Early south 3-1 Goodhue CF (details?); 3-8 Freeborn DG; 3-16 Yellow Medicine GLO; early north 3-17 Becker TRS; 3-21 Cass AES; 4-7 St. Louis NJH; peak 5-17 Pope (300+) HCK.

Green Heron

Early south 3-28 Hennepin JC; 4-5 Hennepin DY; 4-6 Washington GA; early north 5-9 Mille Lacs MI; 5-9 St. Louis D. Olson; 5-10 Becker TRS.

LITTLE BLUE HERON

2 reports 4-24 & 25 Olmsted JF and HT; 5-18 Wabasha WDM and HT.

Cattle Egret

9 reports, 21 individuals, 4-26 Meeker (1) DB and KG; 4-27 Scott (1) RAG; 4-30 Pope (4) BAH; 5-1 Freeborn DG; 5-4 Sibley (4) J. Dempsey; 5-11 (3) 5-14 (4) Murray ADK; 5-13 to 5-28 Wabasha (2-3) WDM, BDC, RAG; 5-11 Aitkin (1) JB, TS.

Great Egret

Early south 3-31 Wabasha VH; 4-4 Houston FL; 4-8 Dakota RAG and Big Stone DWS; early north 4-12 St. Louis M. Sundquist; 4-14 Marshall AR; 4-17 St. Louis M. Kohlbry; peak 5-3 Pope (200+) BAH.

SNOWY EGRET

One report of this casual species, 5-21 Houston Co. (Reno) W. Smith.

Black-crowned Night Heron

Early south 4-8 Dakota RAG; 4-10 Murray ADK; 4-10 Dakota VRL; 3 reports north 4-13 and 5-20 Marshall AR; 5-10 Becker TRS.

Yellow-crowned Night Heron

1 report: 5-11 Hennepin (1) Elm Creek Park JC, DY.

Least Bittern

4 reports: 5-17 and 5-31 Hennepin CLH; 5-17 Otter Tail (1) GLO; 5-28 Stearns NMH.

American Bittern

Early south 4-8 Cottonwood LAF; 4-

13 Hennepin DY; 4-14 Hennepin PG; early north 4-24 St. Louis GJN; 3 reports on 5-2.

WHITE-FACED IBIS

2 reports of this casual: 5-2 to 5-4 Lincoln (1) Mr. & Mrs. A. J. Davis; 5-5 and 5-13 Wabasha (2) (1) WDM, KG, BDC.

MUTE SWAN

2 reports: 3-8 Cook (Grand Marais) MMC; 3-14 & 3-16 Cook (Grand Marais) PVK & ETS.

Whistling Swan

Early south 3-1 Wabasha WDM; 3-31 Yellow Medicine OLE; 4-5 Big Stone DWS; early north 4-14 St. Louis MMC; 4-15 Aitkin JB; 4-16 Crow Wing S. Blanich; peak 4-13 Wabasha (5000) WDM.

Canada Goose

Early north 3-9 Marshall AR; 4-11 Mille Lacs MI; peak 4-11 Lac Qui Parle (30,000) OLE.

White-fronted Goose

4 reports: 4-11 Yellow Medicine (4) GLO; 4-12 Lac Qui Parle (4) RAG and Big Stone (8) DWS; 4-13 Rock (5) KE.

Snow Goose

Early south 4-7 Olmsted VH and Hennepin JC, DY; 4-9 Big Stone DWS; 4-11 Yellow Medicine GLO; only reports north 4-18 Marshall AR; 4-21 Clay LCF; 4-24 St. Louis GJN; peak 4-11 Yellow Medicine (200) GLO.

Mallard

Peak 5-2 Marshall (1970) AR.

Black Duck

Early south 3-1 Goodhue VRL; 3-5 Hennepin PG; 3-8 Hennepin JC, DY; early north 4-11 St. Louis MMC; 4-13 St. Louis GJN; 4-20 Mille Lacs MI and Aitkin JB.

Gadwall

Early south 3-18 Scott VRL; 3-21 Rice OAR; 3-28 Olmsted JF; early north 3-22 Cook MMC; 4-19 St. Louis GJN; 3 reports on 4-20; peak 5-2 Marshall (2060) AR.

The Loon

Pintail

Early south 3-18 Scott VRL and Big Stone DWS; 3-20 Rock KE; early north 3-22 Cook MMC; 4-14 Marshall AR; 4-20 Clay ABNGP and Aitkin JB; peak 5-2 Marshall (850) AR.

Green-winged Teal

Early south 3-20 Rock KE; 3-21 Lyon HCK; 3-28 Wabasha WDM; early north 4-19 St. Louis MMC; 4-20 Mille Lacs MI and Clay ABNGP and Aitkin JB; peak 5-2 Marshall (920) AR.

Blue-winged Teal

Early south 3 reports 3-28; early north 4-20 Mille Lacs MI and Aitkin JB and Clay ABNGP; peak 5-15 Marshall (4160) AR.

CINNAMON TEAL

5-10 and 5-11 Blue Earth (Butternut) 1 male and possible female RBJ & KG.

American Wigeon

Early south 3-18 Big Stone DWS; 3 reports on 3-28; early north 4-19 St. Louis MMC; 4-20 Aitkin JB; 4-21 Marshall AR; peak 5-15 Marshall (2110) AR.

Northern Shoveler

Early south 3-18 Big Stone DWS; 3-21 Olmsted JF; 3-28 Olmsted VH and Wright DAF; early north 4-20 Mille Lacs MI and Clay ABNGP; 4-21 Marshall AR; peak 5-15 Marshall (560) AR.

Wood Duck

Early south 3-17 Anoka EPRD; 3-18 Hennepin PG; 3-21 Olmsted JF; early north 4-4 Becker TRS; 4-17 Clay LCF; 4-19 St. Louis MMC and Crow Wing TS; peak 4-7 Stearns (100) NMH.

Redhead

Early south 3-17 Olmsted FKS; 3-18 Olmsted JF and Big Stone DWS; early north 4-17 Beltrami AJM; 4-19 St. Louis MMC; 4-22 Marshall AR; peak 5-15 Marshall (2200) AR.

Ring-necked Duck

Early south 3-1 Goodhue CF; 3-16 Dakota RAG; 3-17 Olmsted FKS; early north 3-22 Cook MMC; 4-13 St. Louis GJN; 4-15 Becker TRS; peak 5-15 Marshall (2080) AR.

Canvasback

Early south 3-17 Olmsted JF, FKS; 3-20 Wabasha WDM; early north 3-28 Becker TRS; 4-14 Marshall AR; peak 5-15 Marshall (720) AR.

Greater Scaup

17 reports: early south 3-30 Hennepin JC, DY; 4-5 Hennepin VRL; 4-7 Hennepin OLJ; 4-11 Hennepin ETS; early north 4-11 St. Louis MMC; 4-13 St. Louis GJN; late north 5-28 St. Louis GJN; peak 4-25 Lake Superior (300+) GJN.

Lesser Scaup

Early south 3-1 Goodhue CF; 3-5 Hennepin PG; 3-17 Olmsted FKS; early north 3-31 Crow Wing TS; 4-11 St. Louis MMC; 4-15 Becker TRS; peak 5-2 Marshall (19,950) AR.

Common Goldeneye

Late south 5-20 Cottonwood RD; peak 4-20 Marshall (740) AR and 4-17 Stearns (1000+) NMH.

Bufflehead

Early south 3-20 Olmsted VH; 3-30 Olmsted JF and Freeborn RK; early north 3-23 Cook MMC; 4-13 St. Louis GJN; 4-15 Marshall AR; late south 5-10 Wabasha WDM; late north 5-28 St. Louis GJN; peak 5-2 Marshall (1590) AR.

Oldsquaw

7 reports all from Lake Superior: early 3-16 Cook (3) PVK; late 5-27 Lake (1) J. Pratt; peak 5-16 Cook (30) MMC.

White-winged Scoter

5 reports all from Lake Superior: 3-16 Cook (4) PVK; 5-11 to 5-25 MMC, GJN; peak 5-17 Cook (150) MMC.

Surf Scoter

2 reports: 5-8 St. Louis (1), 5-17 Cook (8) MMC.

Black Scoter

2 reports: 5-16 Cook (4) MMC; 5-17 St. Louis (1) KE, TS, HCK.

Ruddy Duck

Early south 3-22 Olmsted JF; 3-28 Olmsted VH, JF; 3-30 Dakota RAG; reports north 4-20 Marshall AR; 4-27 to

5-4 Aitkin JB. TS, LP; 5-8 Otter Tail MS; peak 5-2 Marshall (1340) AR.

Hooded Merganser

Early south 3-18 Scott VRL; 3-19 Scott RAG; 3-28 Wright DAF; early north 4-7 St. Louis MMC; 4-11 Becker TRS; 4-13 Marshall AR and St. Louis GJN.

Common Merganser

Early north 4-11 Becker TRS; 4-13 St. Louis GJN; 4-16 Marshall AR; late south 5-3 Pope BAH and Nicollet KG; peak 4-6 Dakota (500) ETS.

Red-breasted Merganser

Early south 3-11 Lac Qui Parle GLO; 3-19 Dakota RAG; 3-20 Wabasha WDM; early north 3-11 and 3-17 Lake Superior JCG; 4-11 St. Louis MMC; late south 5-15 Wabasha WDM; peak 4-14 Goodhue (530) CF.

Turkey Vulture

Early south 3-31 Winona VH; 4-4 Mower RK; 4-5 Olmsted JF; early north 3-23 Hubbard HJF; 4-6 Clay LCF; 4-18 Mille Lacs MI.

MISSISSIPPI KITE

Second record for the state 5-24 Olmsted Co. RBJ, B. Pieper.

Goshawk

Late south 4-6 Cottonwood LR and Hennepin OLJ; 4-7 Carver JJW; 4-29 Hennepin BDC; late north 4-22 and 5-22 St. Louis GJN.

Sharp-shinned Hawk

Early south 3-1 Goodhue CF; 3-18 Le Sueur HFC; 3-19 Wright BAH; early north 4-6 Clay ABNGP; 4-11 Clearwater RCD; 4-12 Morrison LSR.

Cooper's Hawk

Early south 3-1 Goodhue CF; 4-1 Hennepin OLJ; 4-5 Rock KE; early north 4-16 Beltrami AJM; 4-22 and 4-25 St. Louis GJN.

Red-tailed Hawk

Early north 3-15 Becker TRS; 3-20 Itasca MS; 3-31 Crow Wing JB.

Red-shouldered Hawk

Early south 3-1 Goodhue CF; 3-8 Hennepin OLJ; 3-9 Hennepin ETS; ear-

ly north 3-18 Kanabec M. Link; 3-24, 3-25 Crow Wing JB; 4-30 Carlton BDC; 5-17 Crow Wing (bird on nest) KE, HCK, TS; also reported from the southwest: 3-22 Lyon HCK and late April and early May Cottonwood RD.

Broad-winged Hawk

Early south 4-5 Hennepin OLJ. PG; 4-6 Lyon HCK; 4-11 Olmsted JF; early north 4-19 Kanabec PF; 4-20 Becker TRS; 4-22 St. Louis GJN; one report of the rare dark phase 4-24 Rock (1) KE.

Swainson's Hawk

17 reports of 20 individuals: 3 reports on 4-16 from Olmsted and Dakota Co's; other reports from 4-20 to 5-31 from Mower, Goodhue, Lac Qui Parle, Rock, Lyon, Traverse, Redwood, Dodge, Rice and Clay Co's (4-20 ABNGP).

Rough-legged Hawk

Early north 3-22 Marshall AR; 4-15 Aitkin (45) TS; 4-19 Aitkin GJN; latest 4-26 Mower RK; 5-22 St. Louis MMC.

Ferruginous Hawk

4-27 Traverse (1) PG, JC, DY (details?).

Golden Eagle

14 reports of 19 individuals with 5 reports giving age: 3-1 Freeborn (imm) RK; 3-5 Yellow Medicine (1) GLO; 3-8 Wabasha (1 imm) OLJ and Hennepin DY, JC; 3-9 Winona (1 imm) PAZ & RL; 3-15 Winona (1 imm) RBJ and Marshall (1) AR; 4-5 Norman (1) M. Wyatt; 4-6 Houston (4) (imm) FL; 4-7 Carver (3) JJW; 4-11 Scott (1) VRL; 4-13 Winona (2) RD; 5-17 Chisago (1) PG.

Bald Eagle

45 reports from 3-1 to 5-26 for a total of 111 individuals (20 adults, 15 immatures, 75 no age indicated): reported from Goodhue (3); Hennepin (7); Freeborn (1); Wabasha (39); Lac Qui Parle (7); Carver (1); Scott (4); Anoka (1); Lyon (1); Big Stone (4); Stearns (1); Le Sueur (1); Houston (6); Aitkin (1); Carlton (1); Marshall (2); Mille Lacs (2); St. Louis (19); Itasca (4); Hubbard (1); Cass (1); Lake (1); Koochiching (1); Crow Wing (1); Washington (1).

The Loon

Marsh Hawk

Early south 3-6 Hennepin JC, DY; 3-19 Hennepin EPRD and Cottonwood LAF and Wabasha WDM; early north 3-15 Becker TRS; 3-22 Marshall AR; and Morrison DAF; 4-8 Clay LCF.

Osprey

Earliest in north 3-10 St. Louis (1) Ms. V. Jonas, earliest date on record by 2 weeks; 4-18 Cass HJF; 4-20 Clay M. Wyatt; early south 4-7 Olmsted JF; 4-13 Winona RK; 4-18 Carver JJW.

PRAIRIE FALCON

1 report: 3-21 Clay (1) M. Kohlbry, Dave Evans.

Peregrine Falcon

Only 2 reports this year: 4-7 Carver (1) EPRD, JJW; 4-13 Hennepin (1) CLH.

Merlin

14 reports: 3-15 to 5-2 from Winona, Hennepin, Cottonwood, Lyon, Freeborn, Goodhue, Washington, Dakota, Stearns, Yellow Medicine, Mille Lacs Co's.

American Kestrel

Early north 3-17 Becker TRS; 3-21 Marshall AR; 3-23 Cass HJF and Morrison LSR.

Spruce Grouse

3-15 Cook and Lake (3, 1 dead) ETS.

Ruffed Grouse

Reported from Wabasha, Anoka, Sherburne, Winona, Wright, Washington, Houston, Stearns, Goodhue, Olmsted (5-9, KG, 1 heard, westward range extension), Lake, Otter Tail, St. Louis, Cook, Todd, Itasca, Marshall, Mille Lacs, Cass, Crow Wing, Morrison, Aitkin Co's.

Greater Prairie Chicken

2 reports: 4-19 Clay (4) PF and 4-20 (40) ABNGP.

Sharp-tailed Grouse

3 reports: 4-5 Aitkin (7) RBJ; "present" Marshall AR; 5-3 Aitkin JB.

Bobwhite

4-12 Freeborn (1) DG (probable released bird).

Ring-necked Pheasant

Reported from Nicollet, Freeborn, Hennepin, Cottonwood, Dakota, Carver, Stearns, Murray, Anoka, Ramsey, Lac Qui Parle, Olmsted, Wabasha, Rice, Yellow Medicine, Goodhue, St. Louis Co's.

Gray Partridge

Reported from Rock, Redwood, Blue Earth, Kandiyohi, Pope, Swift, Morrison (3-28 Genola (2) DF), Murray, Lac Qui Parle, Dodge, Mower, Fillmore, Olmsted, Rice, Freeborn, Yellow Medicine, Goodhue, Pipestone, Chippewa, Clay Co's.

Turkey

3-8 Wabasha OLJ — only report.

Sandhill Crane

5 reports: 4-12, 5-1 (66), 5-28 Marshall SV; 4-20 Wilkin (500) ABNGP; 4-24 Sherburne (3) PF.

King Rail

1 report: 4-23 Clearwater RCD (details?).

Virginia Rail

Early south 5-4 Hennepin KG and Stearns NMH; 5-5 Hennepin RAG; 5-6 Hennepin VRL; early north 5-7 Marshall AR; 5-15 Morrison LSR and Clay ABNGP.

Sora

Early south 4-16 Goodhue CF and Hennepin JJW; 4-19 Murray RBJ; 4-21 Nicollet RAG; early north 5-2 Mille Lacs MI; 5-4 Marshall AR.

Yellow Rail

Early April Aitkin Co. TS.

Common Gallinule

1 report: 4-26 Houston (1) FL.

American Coot

Early south 3-1 Yellow Medicine GLO; 3-17 Dakota RAG; 3-19 Olmsted JF; early north 3-28 Becker TRS; 4-7 Mille Lacs MI; 4-10 Marshall AR; peak 5-2 Marshall (17,360) AR.

Semipalmated Plover

Early south 5-11 Lyon HCK; 5-14 Wabasha WDM; early north 5-11 - 5-25

Aitkin JB; 5-24 St. Louis MMC; 5-26 Aitkin TS; late 5-27 Lyon HCK.

Piping Plover

9 reports: 8 in St. Louis from 4-25 to 5-29, up to 4 in number; 1 from Hennepin 4-27 PG.

Killdeer

Early south 3-6 Hennepin OLJ; 3-10 Freeborn DG; 3-14 Yellow Medicine GLO; early north 3-17 Mille Lacs MI; 4-9 St. Louis JCG and Crow Wing TS.

American Golden Plover

Early south 4-19 Rock RAG, RBJ, BL; 4-20 Rock KE; 4-23 Cottonwood RD; early north 4-26 Clay ABNGP; late 5-25 Aitkin JB.

Black-bellied Plover

Early south 5-11 Lyon HCK; 5-15 Wabasha WDM, RAG; 5-16 Wabasha RL; early north 5-18 Clay ABNGP; 5-24 Marshall AR and St. Louis MMC; late 5-30 Renville RBJ.

Ruddy Turnstone

Early south 5-10 Lyon HCK; 5-13 Wabasha WDM, BDC; 5-16 Carver RBJ; early north 5-18 Clay E. Welter; 5-19 St. Louis MMC; 5-23 Marshall AR; late 5-30 Lyon and Murray RBJ.

American Woodcock

Early south 3-2 Freeborn (details?) DG; 3-6 and 3-10 Lyon (1) HCK — early records by 2 weeks, next record 4-5 Cottonwood LAF; early north 4-15 St. Louis MMC; 4-16 Crow Wing TS; also reported from Rock Co.

Common Snipe

Early south 3-29 Hennepin ETS; 4-8 Goodhue CF; 4-9 Big Stone DWS; early north 4-5 Morrison LSR; 4-15 Becker TRS; 4-17 Cass AES.

Whimbrel

4 reports: 5-16 Wabasha (2) WDM, RL; 5-17 St. Louis (2) and Meeker (1) OLJ; 5-29 St. Louis (1) BDC; this bird is casual away from Lake Superior.

Upland Sandpiper

Early south 4-27 Dakota RAG; 5-3 Rock KE; 5-10 Brown RBJ and Yellow Medicine GLO; early north 5-5 St.

Louis MMC; 5-7 Traverse MS; 5-11 Aitkin JB.

Spotted Sandpiper

Early south 4-21 Hennepin PG; 4-27 Lyon HCK and Yellow Medicine RBJ; early north 5-1 Itasca MS and St. Louis Sister Beverly; 5-2 St. Louis MMC.

Solitary Sandpiper

Early south 4-22 Dakota RAG; 4-23 Wabasha WDM; 4-27 Pipestone KE; early north 4-30 Clay SC; 5-3 Itasca MS and St. Louis MMC; late 5-24 Freeborn RBJ; 5-28 St. Louis GJN.

Willet

Early south 4-29 Hennepin (14) JJW; 4 reports 4-30; early north 4-30 St. Louis JCG, BDC; 5-2 St. Louis MMC; late 5-13 Anoka SC; 5-17 St. Louis KE, HCK, TS.

Greater Yellowlegs

Early south 4-12 Le Sueur HFC; 4-15 Lyon HCK; 4-16 Yellow Medicine GLO and Murray ADK; early north 4-21 St. Louis MMC; 4-22 Marshall AR; 4-27 Wilkin PG and Aitkin JB; late 5-20 Winona VH.

Lesser Yellowlegs

Early south 4-4 Wabasha WDM; 4-14 Big Stone DWS; 4-16 Yellow Medicine GLO and Lyon HCK; early north 4-13 Morrison DAF; 4-15 Aitkin TS; 4-26 Clay ABNGP and Aitkin JB; late 5-25 Aitkin JB.

Red Knot

6 reports all from St. Louis Co.: 5-28 GJN (6), RBJ (1), RAG (1), BDC (6); 5-31 H. Huber (4), BL (2).

Pectoral Sandpiper

Early south 4-13 Lyon HCK; 4-17 Le Sueur RAG; 4-19 Murray RBJ; only report north 5-25 Aitkin JB; late 5-27 Lyon HCK.

White-rumped Sandpiper

Early south 5-10 Lyon HCK; 5-15 Wabasha RAG; 4 reports 5-17; 3 reports north: 5-17 Cook (5) MMC, unusual record; 5-26 Aitkin TS; 5-28 St. Louis GJN; late 5-31 Lyon RD.

The Loon

Baird's Sandpiper

Early south 4-12 Lac Qui Parle RAG; 4-19 Lyon HCK; 5-10 Carver ETS; early north 5-18 Clay ABNGP; late 5-28 St. Louis GJN.

Least Sandpiper

Early south 4-14 Lyon HCK; 4 reports on 5-5; early north 5-5 St. Louis GJN; 5-10 Marshall AR; 5-11 Aitkin JB; late 5-20 Yellow Medicine GLO; 5-28 St. Louis GJN.

Dunlin

Early south 4-19 Lyon HCK; 5-5 Wabasha ETS, KG; early north 5-11 Aitkin JB; 5-13 St. Louis MMC; 5-17 St. Louis JJW; late 5-28 St. Louis GJN.

Short-billed Dowitcher

2 reports with call note data: 5-16 Meeker (6) RBJ; 5-16 - 5-18 Lyon (5) KE.

Long-billed Dowitcher

2 reports with call not data: 5-3 Wabasha (2) RBJ; Hennepin (1) M. Johnson.

Dowitcher Sp.

9 reports from 4-19 to 5-26 from Hennepin, Clay, Goodhue, Wabasha, Lyon, Aitkin Co's.

Stilt Sandpiper

8 reports all from south: 5-3 Sibley ETS; 5-11 to 5-19 Lyon KG, ETS, HCK; 5-17 Lac Qui Parle OLJ, PAZ; 5-15 Wabasha RAG.

Semipalmated Sandpiper

Early south 4-12 Lyon HCK; 4-19 Murray RBJ, RAG, BL; early north 5-11 St. Louis GJN; 5-17 Otter Tail GLO and St. Louis JJW; late 5-29 Lac Qui Parle ETS and St. Louis BDC.

Western Sandpiper

10 reports all southwest and west: 4-19 to 5-31 Lyon, up to 75 in number. RDi, HCK, KG, PAZ; 5-17 Lac Qui Parle PAZ, OLJ; 5-17 Otter Tail and 5-20 Yellow Medicine GLO.

Marbled Godwit

Early south 4-19 Murray RAG, RBJ, BL and Lyon HCK; 4-20 Cottonwood LAF, RD; 2 reports north 4-27 Wilkin JC, DY; 5-2 Marshall AR.

Hudsonian Godwit

Only reports south 4-19 Murray RBJ, RAG, BL and Lyon HCK; 5-10 Nobles KE; 5-16 Wabasha RL; 1 report north Aitkin (1) JB.

RUFF (REEVE)

1 report, fourth record for the state: 5-11 Lyon, Marshall Sewage Lagoons HCK (1 female).

Sanderling

Early south 5-10 Lyon HCK; 5-17 Lac Qui Parle PAZ. OLJ, KG; early north 5-13 St. Louis GJN; 5-20 St. Louis GA; late 5-28 St. Louis GJN.

American Avocet

10 reports: 4-19 Lac Qui Parle (4) PVK; 4-20 Yellow Medicine (2) GLO; 4-24 Big Stone (20) DWS; 4-26 (3) HCK; 5-24 (1) BL, Lyon; 4-27 (3) CF, 5-29 (6) ETS, 5-31 (2) RBJ, Lac Qui Parle; 4-29 (1) Cottonwood LR; 5-26 Aitkin (1) TS.

Wilson's Phalarope

Early south 4-21 Lyon HCK; 4-23 Dakota RAG; 4 reports on 4-26; only 3 reports north: 5-4 St. Louis NJH; 5-11 Aitkin JB; 5-26 Aitkin TS.

Northern Phalarope

9 reports: 5-11 Stearns MC; 5-14 to 5-30 Lyon up to 45 in number HCK, PAZ, BL, RBJ, ETS, OLJ; 5-17 Lac Qui Parle KG.

Glaucous Gull

6 reports all from Lake Superior: 3-7 (5 imm) and 5-11 (1 imm) St. Louis JCG; 4-12 (3, Wis. Pt. Dump) and 5-13 St. Louis MMC; 4-14 Cook L. Scherer; 5-11 (1) St. Louis GJN.

THAYER'S GULL

5-3 Duluth B. Pieper 5-8 and 5-22 St. Louis MMC.

Herring Gull

Early south 3-1 Dakota BDC; 3-21 Dakota RAG; early north 3-4 Cook MMC; 3-14 Cook ETS; 4-10 St. Louis GJN.

CALIFORNIA GULL

1st record of this long overdue species for Minnesota: 5-30 Pipestone (Split Rock Creek St. Park) RBJ, RAG.

Ring-billed Gull

Early south 3-1 Dakota (wintered?); 3-8 Hennepin JC, DY: 3-18 Big Stone DWS; early north 4-4 Mille Lacs MI; 4-6 Clay ABNGP; 4-13 St. Louis GJN.

Franklin's Gull

Early south 3-20 Big Stone DWS; 4-5 Rock KE; 4-7 Murray ADK; early north 4-16 Marshall AR; 4-21 Clay LCF; 4-22 Clay SC; peak early May Marshall (20,000-30,000) AR.

Bonaparte's Gull

Early south 3-30 Freeborn RK; 4-13 Lyon HCK; 4-16 Yellow Medicine GLO; early north 4-21 St. Louis MMC; 4-27 Wilkin PG and Aitkin JB; late 5-28 St. Louis GJN; peak 5-2 St. Louis (400) MMC.

LITTLE GULL

2 reports: 5-22 St. Louis (2 imm) MMC; 5-29 St. Louis (1 ad, 1 imm) BDC, RBJ.

Forster's Tern

Early south 4-13 Wright DAF; 3 reports on 4-16; early north 4-27 Otter Tail PG; 5-5 St. Louis GJN; 5-8 St. Louis MMC.

Common Tern

Early south 4-10 Hennepin VRL; 4-18 Cottonwood LR and Goodhue CF; early north 5-8 St. Louis MMC; 5-11 St. Louis JCG; 5-15 Becker TRS.

LEAST TERN

1 report: 5-17 Lyon, sewage lagoons, (1 adult) OLJ, PAZ.

Caspian Tern

Early south 4-22 Hennepin VRL; 4-28 Freeborn DG; 4-30 Carver JJW; early north 5-2 St. Louis MMC; 5-5 St. Louis GJN; 5-8 St. Louis JCG; late 5-29 St. Louis RBJ.

Black Tern

Early south 4-13 Hennepin PG; 4-27 Rock ADK; 5-1 Ramsey REH; early north 5-9 Marshall AR and Crow Wing TS; 5-11 St. Louis JCG.

Mourning Dove

Early north 3-1 St. Louis MMC; 3 reports 4-9.

Yellow-billed Cuckoo

8 reports, all south: 5-15 Hennepin BDC and 5-27, 5-29 WKE; 5-20 Houston ETS; 5-27 Goodhue CF; 5-31 Yellow Medicine GLO; 5-31 Rock HCK and Goodhue FN.

Black-billed Cuckoo

Early south 5-12 Hennepin WKE; 5-17 Cottonwood LAF; 3 reports on 5-18; 3 reports north 5-21 and 5-28 St. Louis GJN; 5-24 Mille Lacs MI; 5-31 Aitkin TS.

Screech Owl

Reported from Goodhue, Rice, Olmsted, Swift, Wright, Hennepin, Rock, Scott. Becker Co's (5-4 TRS).

Great Horned Owl

Reported from 29 counties.

Snowy Owl

11 reports: 3-1 (2), 4-15 (1) St. Louis GJN; 3-7 (1) Mille Lacs MI; 3-9 (1), 3-29 (1) Clay LCF; 3-21 (1) Rice FKS; 3-31 (1) St. Louis NJH; 4-5 St. Louis (2) RBJ, RAG; 4-21 (2) St. Louis MMC; 4-27 Aitkin JB; 4-29 (1) Marshall SV.

Burrowing Owl

1 report, two birds late March near Lake Benton, Lincoln Co. (Leon Krog).

Barred Owl

Reported from 14 counties.

Long-eared Owl

3 reports: 3-1 Goodhue CF; 4-19 Rock (1) RAG, RBJ, KE, BL; 4-25 McLeod (1) RBJ.

Short-eared Owl

5 reports: 3-28 Hennepin (1) EPRD; 4-5 Clay ABNGP; 4-21 Marshall (6) SV; 4-30 Becker TRS; 4-30 Stearns (2) MC.

Saw-whet Owl

9 reports: 3-2 Anoka (1) SC; 3-7 St. Louis M. Kohlbry, 4-1 B. Bergstedt, 5-28 (1) GJN; 3-20 Itasca (1 heard) MS; 5-16 Crow Wing (2 heard) TS; 5-17 Aitkin (1 heard) KE, TS; 5-23 Hennepin (1 heard) OLJ; 5-31 Lake JCG.

Whip-poor-will

10 reports: 4-29 Hennepin VRL, BDC; 5-4 Houston FL; 5-5 Wabasha ETS; 5-8 Anoka SC; 5-11 Crow Wing

TS; 5-20 Sherburne PF; 5-11 to 5-15 Marshall SV; 5-12 and 5-26 St. Louis N. Lundquist; 5-15 Clearwater RDC; 5-28 St. Louis GJN.

Common Nighthawk

Early south 4-15 Hennepin PG; 5-3 Anoka SC and Mower RK; early north 5-15 Crow Wing TS; 5-17 Cook MMC; 5-18 St. Louis NJH and Crow Wing JB.

Chimney Swift

Early south 4-28 Cottonwood LR; 5 reports on 4-29; early north 5-12 Pennington SV; 5-13 Itasca MS.

Ruby-throated Hummingbird

Early south 4-22 Freeborn DG; 5-3 Hennepin PG, OLJ; 5-5 Stearns MC; early north 5-11 Mille Lacs MI; 5-12 Marshall SV and Hubbard HJF.

Belted Kingfisher

Early south 3-1 Goodhue CF and Lyon GLO; 3-9 Goodhue PAZ; early north 4-7 Clay SC; 4-12 St. Louis GJN.

Common Flicker

Early north 3-17 Becker TRS (wintering?); 4-15 Marshall SV; 4-16 St. Louis MMC.

Pileated Woodpecker

Reported from 26 counties.

Red-bellied Woodpecker

Reported from 20 counties including St. Louis (5-26 to 5-28 (1) N. Lindquist) and Murray (5-14 (2) GLO).

Red-headed Woodpecker

Early north 5-6 Mille Lacs MI; 5-10 Marshall SV; 5-12 Becker TRS.

LEWIS' WOODPECKER

4-20 OLJ and 5-1 RBJ Sherburne Co., last reports of this bird which has been there since December.

Yellow-bellied Sapsucker

Early south 3-20 Hennepin VRL; 4-6 Mower RK; early north 4-8 Clay SC; 4-9 Mille Lacs MI; 4-12 Clay LCF.

Hairy Woodpecker

Reported from 34 counties.

Downy Woodpecker

Reported from 34 counties.

The Loon

Black-backed Three-toed Woodpecker

2 reports: 3-2 Crow Wing (1) RBJ; 5-10, 11 Lake J. Sublett.

Northern Three-toed Woodpecker

3 reports: 3-2 Crow Wing (2) RBJ; 4-4 Crow Wing TS; 5-26 Koochiching PG.

Eastern Kingbird

Early south 4-28 Murray ADK; 5-2 Stearns NMH; 5-3 Carver JJW; early north 5-10 Aitkin LP; 5-13 Marshall SV and St. Louis GJN.

Western Kingbird

Early south 4-30 Murray RAG; 5-3 Rock KE; 5-4 Rock HCK; early north 5-3 Otter Tail GLO; 5-15 Marshall SV; 5-17 Morrison DAF.

Great-crested Flycatcher

Early south 4-4 Lyon HCK; 4-11 Lyon NH; 4-23 Olmsted JF, all record early dates, the earliest record was for 4-25; early north 5-9 Morrison LSR; 5-10 Mille Lacs LP; 5-11 St. Louis GJN and Clearwater RCD.

Eastern Phoebe

Early south 4-6 Mower RK; 4-8 Hennepin EPRD; 3 reports on 4-11; early north 4-10 Crow Wing S. Blanich; 4-13 St. Louis GJN; 4-14 Morrison LSR; 4-17 Clay SC, LCF.

Yellow-bellied Flycatcher

Early south 5-4 Swift HH; 5-5 Hennepin OLJ; 5-6 Hennepin JC, DY; early north 5-11 Mille Lacs LP; 5-17 Crow Wing JB; 5-21 St. Louis JCG.

Alder Flycatcher

Reports south 4-29 to 5-28 Hennepin many observers; 5-24 Freeborn and Mower; 5-31 Pipestone RBJ; reports north 5-28 Marshall SV; 5-29 Carlton RBJ.

Willow Flycatcher

3 reports: 5-12 Hennepin PG; 5-31 Pipestone RBJ; 5-27 Hennepin FN.

Flycatcher sp?

"Traill's" Flycatchers which were not identified as Alder or Willow: early south 5-7 Lyon HCK; 5-13 Yellow Medicine GLO; early north 5-22 St. Louis MMC; 5-24 St. Louis GJN.

Least Flycatcher

Early south 4-30 Hennepin RBJ and Swift HH; 5-2 Ramsey REH and Murray ADK; early north 4-19, 20 Aitkin LP; 5-5 Crow Wing TS; 3 reports on 5-9.

Eastern Wood Pewee

Early south 4-22 Hennepin PVK; 5-1 Freeborn DG; 5-5 Rice RDi; early north 5-5 Clay LCF; 5-10 Mille Lacs MI.

Olive-sided Flycatcher

Early south 5-9 Hennepin ETS; 5-10 Fillmore JF and Anoka SC; early north 5-20 St. Louis GA; 5-21 Mille Lacs MI.

Horned Lark

Early north 3-1 Morrison LSR; 3-2 Aitkin PVK; 3-3 Clay LCF.

Tree Swallow

Early south 3-28 Wabasha WDM; 4-10 Dakota RAG and Swift HH; early north 4-15 Aitkin TS; 4-20 St. Louis NJH and Aitkin JB and Mille Lacs MI; 4-21 St. Louis JCG, MMC.

Bank Swallow

Early south 4-16 Yellow Medicine GLO; 4-21 Hennepin DY, JC; 4-26 Lac Qui Parle RBJ; early north 5-2 Crow Wing TS; 5-5 St. Louis GJN; 5-7 Otter Tail MS.

Rough-winged Swallow

Early south 4-15 Dakota RAG and Goodhue CF; 4-25 Olmsted JF; early north 4-27 Morrison LSR; 5-8 St. Louis GJN; 5-12 St. Louis MMC.

Barn Swallow

Early south 4-16 Lac Qui Parle GLO; 4-19 Goodhue CF; early north 4-26 Aitkin TS; 5-7 Traverse MS; 3 reports on 5-9.

Cliff Swallow

Early south 4-25 Dakota ETS and Freeborn DG; 4-28 Hennepin RAG; early north 4-25 Marshall SV; 4-27 Aitkin JB; 4-29 Becker TRS.

Purple Martin

Early south 4-12 Hennepin OLJ and Stearns NMH; 4-13 Washington WHL; early north 3 reports on 4-23.

Gray Jay

Reported from Cass, Itasca, St. Louis, Lake, Carlton, Aitkin, Cook, Koochiching Co's.

Blue Jay

Reported from 33 counties.

Black-billed Magpie

4 reports: 3-12 Itasca (1) MS; 3-16 Hennepin (1) CLH; 4-25 Marshall (2) SV; 5-20 Clay ABNGP.

Common Raven

Reported from Aitkin, St. Louis, Lake, Cook, Pine, Marshall, Mille Lacs, Cass, Koochiching Co's.

Common Crow

Reported from 31 counties.

Black-capped Chickadee

Reported from 27 counties.

Boreal Chickadee

3 reports: 3-1 St. Louis GJN; 3-8 Hennepin OLJ; 4-24 Cook HFC.

Tufted Titmouse

Only 3 reports: Present Goodhue CF; 5-9 Olmsted VH; 5-3 Hennepin (2) PVK.

White-breasted Nuthatch

Reported from 29 counties.

Red-breasted Nuthatch

31 reports from St. Louis, Hubbard, Itasca, Cass, Cook, Hennepin, Rock, Olmsted, Rice, Wabasha, Stearns, Swift, Anoka, Mower Co's.

Brown Creeper

Early south 3-1 Goodhue CF; 3-8 Wabasha WDM; early north 3-26 St. Louis MMC; 4-8 Clay SC; 4-12 Clay LCF.

House Wren

Early south 4-15 Murray ADK; 4-20 Hennepin PVK; 4-21 Olmsted VH; early north 5-7 St. Louis MMC and Marshall SV; 5-8 Morrison LSR.

Winter Wren

Early south 4-5 Houston FL; 4-8 Hennepin VRL, EWJ; early north 4-17 St. Louis MMC; 5-2 Crow Wing TS; 5-4 Marshall SV; peak 4-19 Pipestone, Rock (20) KE.

The Loon**CAROLINA WREN**

1 report 5-2 Hennepin (1) VRL.

Long-billed Marsh Wren

Early south 4-20 Lyon HCK; 4-26 Lac Qui Parle JCG; 4-29 Olmsted VH; early north 5-17 Cook MMC; 5-19 Clearwater MS.

Short-billed Marsh Wren

Early south 5-1 Rock KE and Carver EPRD; 5-2 Hennepin ETS; early north 5-19 Clearwater MS; 5-23 St. Louis MMC.

Mockingbird

9 reports: 3-30 Hennepin JC, DY; 4-24 Olmsted (1) JF; 5-4 Blue Earth (1) OLE; 5-9 Crow Wing (1) CLH; 5-17 Cass (1) HRH; 5-18 Cook (2) MMC; 5-26 Hubbard KG; 5-31 St. Louis BL, H. Huber; 5-31 Rock (1) RL.

Gray Catbird

Early south 4-27 Hennepin EWJ; 4-29 Hennepin BDC and Carver EPRD; early north 5-1 Crow Wing TS; 5-6 Morrison LSR; 5-8 Mille Lacs MI and Crow Wing JB.

Brown Thrasher

Early south 4-4 Washington GA; 4-12 Hennepin EPRD; 4-19 Rock KE, RBJ, RAG; early north 5-3 Morrison LSR; 5-4 Clay LCF and Clearwater RCD.

American Robin

Early north 3-2 St. Louis GJN; 3-17 Becker TRS; 4-5 Morrison LSR.

Varied Thrush

2 reports: 4-6 Hennepin (1) Ms. Hargrove; 4-16 St. Louis (1) Ms. Trigg.

Wood Thrush

Early south 4-7 Rice OAR; 4-9 Stearns MC; 4-22 Hennepin EPRD; early north 5-9 Itasca MS; 5-14 Cass AES; 5-15 St. Louis GJN.

Hermit Thrush

Early south 4-1 Hennepin RAG; 4-5 Mower RK; 4-6 Murray ADK; early north 4-7 Aitkin JB; 4-8 Clay SC and Crow Wing TS; 4-12 Mille Lacs MI; late south 5-13 Hennepin DB.

Swainson's Thrush

Early south 4-7 Lyon NH; 4-11 Ramsey REH; 4-20 Rice early north 4-29 Clay LCF; 4-30 Clay SC; 5-4 Marshall SV; late south 5-31 Rock KE, BHB.

Gray-cheeked Thrush

Early south 4-20 Hennepin PVK, 4-21 Hennepin DY, JC; 4-22 Hennepin OLJ; early north 5-9 Morrison LSR; 5-11 Mille Lacs LP; 5-14 & 15 Marshall SV; late south 5-31 Rock KE, LAF and Lac Qui Parle OLE.

Veery

Early south 4-12 Freeborn DG; 4-18 Hennepin OLJ, JC, DY; 4-20 Hennepin PVK; early north 5-7 Crow Wing TS; 5-8 St. Louis MMC; 5-9 Morrison LSR.

Eastern Bluebird

Early south 3-22 Sherburne PVK; 3-24 Freeborn DG; 4-3 Yellow Medicine GLO; early north 4-26 Crow Wing LSR; 5-10 St. Louis NJH; 5-12 St. Louis MMC.

MOUNTAIN BLUEBIRD

3 reports: 4-3 to 4-11 Beltrami (Bemidji) 2 H. T. Peters; 4-7 Lac Qui Parle G. Larson; 4-9 Redwood (Sanborn) 1 dead M. Penner.

Blue-gray Gnatcatcher

Early south 4-29 Cottonwood (1, Mt. Lake) E. Duerksen, one of the few southwest records; 5-3 Mower RK; 5-4 Stearns NMH.

Golden-crowned Kinglet

Early south 3-30 Swift HH; 4-5 Rock KE; 3 reports on 4-6, early north 4-7 Clay SC; 4-14 Marshall SV.

Ruby-crowned Kinglet

Early south 4-7 Murray ADK; 4-8 Hennepin VRL; 4-11 Hennepin EPRD; early north 4-8 Clay SC; 4-19 Aitkin GJN; late south 5-24 Lyon NH.

Water Pipit

9 reports: 4-24 Dakota RAG; 4-25 Kandiyohi and 4-26 Lac Qui Parle CF; 5-9 Carver JJW; 5-15 St. Louis MMC; 5-18 Lyon KE; 5-28 St. Louis GJN; 5-9 Carver and 5-26 St. Louis PVK.

Bohemian Waxwing

8 reports: 3-1 St. Louis (20) GJN; 3-8

Cook JC, DY; 3-12 St. Louis (100) M. Peek; 3-16 Cook (200-300) ETS & PVK; 3-22 Crow Wing (10) TS; 4-5 St. Louis (1) J. Gallian; 4-8 Olmsted (1 dead) VH.

Cedar Waxwing

Early south 3-2 Stearns NMH; 3-8 Le Sueur HFC; 3-13 Washington WHL; early north 3-1 St. Louis MMC; 3-8 Cook JC, DY; 4-5 St. Louis J. Gallian.

Northern Shrike

Late south 4-6 Dakota ETS; 4-21 Stearns MC (Loggerhead?); late north 4-20 Marshall SV and Itasca MS.

Loggerhead Shrike

6 reports: 3-8 Dakota ETS; 3-22 Hennepin EPRD; 4-5 Carver JJW; 4-7 Goodhue RAG; 4-19 Murray BL; 5-12 St. Louis (2, male singing) MMC.

Starling

Reported from 25 counties.

Bell's Vireo

3 reports: 5-6 Le Sueur (3) HFC; 5-23 to 6-2 Goodhue (2) CF; 5-31 Rock KE.

Yellow-throated Vireo

Early south 5-1 Freeborn DG; 5-7 Goodhue CF and Lyon HCK; early north 5-12 Mille Lacs MI; 5-15 Morrison LSR; 5-17 Crow Wing JB.

Solitary Vireo

Early south 4-28 Murray ADK; 4-30 Rice RDi; & Hennepin PVK; early north 5-1 St. Louis S. Beverly; 5-9 Morrison LSR; 5-10 Marshall SV; late south 5-31 Rock LAF.

Red-eyed Vireo

Early south 5-4 Stearns NMH; 5-5 Lac Qui Parle GLO and Hennepin OLJ; early north 5-6 Itasca MS; 4 reports on 5-17.

Philadelphia Vireo

Early south 5-14 Goodhue ETS and Hennepin CLH; 5-15 Wabasha RAG; early north 5-8 Mille Lacs MI; 5-15 St. Louis GJN; late 5-31 Rock KE, GLO, RD.

Warbling Vireo

Early south 5-6 Lyon HCK and Hennepin RAG; 5-9 Hennepin OLJ; early north 5-10 Marshall SV; 5-12 Itasca MS; 5-14 St. Louis JCG.

Black-and-white Warbler

Early south 4-6 Washington GA (details?), earliest date on record is 4-13; 4-22 Hennepin EPRD and Swift HH; early north 5-3 Clay LCF; 5-4 Cass AES; 5-7 Crow Wing TS.

Prothonotary Warbler

9 reports: 5-6 Hennepin (1) RAG, Houston (2) FL; Olmsted (1) JF; 5-10 Washington (1) REH; 5-14 Goodhue (1) ETS; 5-15 Hennepin JC; 5-17 Hennepin DY; 5-22 Rice (1) RDi; 5-27 Goodhue CF.

WORM-EATING WARBLER

1 report: 5-18 Hennepin (1) DB, KG, FN.

Golden-winged Warbler

Early south 5-2 Hennepin JJW, EPRD; 5-6 Rice RDi; 5-7 Hennepin RAG; early north 5-9 Morrison LSR; evidence that this bird is expanding its range northward: 5-26 Koochiching PG.

Blue-winged Warbler

10 records: 5-6 Hennepin (1) EWJ; 5-9 Blue Earth (1) VR; 5-10 Fillmore JF; 5-12 Goodhue (1) DB; 5-13 Goodhue (1) BDC; 5-14 Goodhue (4) and 5-20 Houston (2) ETS; 5-14 Freeborn DG; 5-19 Anoka (1) SC; 5-31 Goodhue (2) FN.

Brewster's Warbler

2 reports of this hybrid: 5-7 and 5-8 Hennepin ETS, and 5-12 Hennepin PVK.

Tennessee Warbler

Early south 4-13 Hennepin EWJ; 4-30 Hennepin EPRD; 5-4 Rock HCK; early north 5-13 Marshall SV; 5-15 St. Louis GJN; 5-16 Cook MMC; late south 5-31 Rock OLJ, KE.

Orange-crowned Warbler

Early south 4-5 Washington GA; 4-23 Hennepin VRL; 4-24 Hennepin WKE and Washington RAG; early

north 5-1 Clay SC; 5-2 Mille Lacs MI and Crow Wing TS; late 5-21 St. Louis JCG.

Nashville Warbler

Early south 4-6 Washington GA; 4-27 Mower RK; 4-29 Lyon HCK; early north 5-9 Morrison LSR; 5-10 St. Louis NJH; 5-11 Mille Lacs MI; late south 5-31 Lyon HCK.

Northern Parula

Early south 5-8 Hennepin EWJ, VRL; 5-9 Rice RDi; 5-10 Hennepin CLH and Goodhue PVK; early north 5-15 St. Louis GJN; 5-17 St. Louis NJH; 5-19 Itasca MS; late south 5-23 Fillmore JF.

Yellow Warbler

Early south 4-21 Hennepin VRL; 5 reports on 5-3; early north 5-10 Crow Wing JB and Morrison LSR; 5-11 Mille Lacs MI.

Magnolia Warbler

Early south 4-16 Yellow Medicine GLO; 4 reports on 5-6; early north 5-9 Morrison LSR; 5-12 Hubbard HJF; 5-14 St. Louis JCG; late south 5-31 Lyon HCK and Rock LAF, OLJ, KE.

Cape May Warbler

Early south 5-5 Hennepin BDC; 3 reports on 5-6; early north 5-8 Mille Lacs MI; 5-12 Marshall SV; 5-13 St. Louis GJN.

Black-throated Blue Warbler

3 reports: 5-2 Lyon, Tracy (1) NH; 5-10 Fillmore (2) JF; 5-19 Wright. Howard Lake (4).

Yellow-rumped Warbler

Early south 4-7 Stearns MC; 4-12 Rock KE and Hennepin EPRD; early north 4-13 Morrison LSR and Itasca MS; 4-14 Mille Lacs MI and Crow Wing TS; late south 5-19 Lyon HCK.

Black-throated Green Warbler

Early south 4-28 Hennepin WKE; 4-29 Lyon HCK; 5-2 Lyon NH; early north 5-5 Crow Wing TS; 5-11 Itasca MS; 5-13 St. Louis GJN; late south 5-21 Hennepin WKE.

Cerulean Warbler

Early south 4-24 Hennepin JC, earli-

The Loon

est date on record; 5-10 Washington (2) REH; 5-12 Goodhue (1) DB; 5-13 Goodhue (4) BDC, VRL; also reported from Stearns, Houston, Olmsted, Fillmore Co's.

Blackburnian Warbler

Early south 5-5 Olmsted JF; 5-6 Le Sueur HFC; 5-8 Hennepin VRL; early north 5-14 St. Louis JCG; 5-15 Becker TRS and St. Louis GJN; late south 5-31 Rock KE and Freeborn DG.

Chestnut-sided Warbler

Early south 5-6 Blue Earth VR; 5-8 Hennepin VRL; 4 reports on 5-9; early north 5-9 Morrison LSR; 5-14 St. Louis JCG; 5-15 St. Louis GJN.

Bay-breasted Warbler

Early south 5-10 Rice RDi, 5-14 Goodhue ETS; 5-15 Goodhue RAG; only report north 5-21 and 22 Marshall SV; late south 5-31 Rock KE.

Blackpoll Warbler

Early south 5-9 Hennepin RBJ, VRL, and Murray ADK; early north 5-11 Marshall SV; 5-15 Morrison LSR and Mille Lacs MI; late south 5-31 Rock KE, OLJ and Lyon HCK.

Pine Warbler

Early south 4-23 Olmsted VH; 5-10 Hennepin ETS and Freeborn DG; early north 5-4 Crow Wing JB; 5-6 Becker TRS; 5-7 Crow Wing TS.

Palm Warbler

Early south 4-14 Hennepin EPRD; 4-26 Olmsted JF; 4-29 Goodhue RAG; early north 4-27 Clay LCF; 5-4 Marshall SV; 5-5 Morrison LSR; late south 5-18 Hennepin PAZ and Wabasha WDM.

Ovenbird

Early south 4-28 Cottonwood LAF; 3 reports on 4-29; early north 5-6 Cass AES; 5-9 Clearwater RCD and Aitkin S. Blanich.

Northern Waterthrush

Early south 4-14 Hennepin RAG; 4-27 Lac Qui Parle RBJ, KE; early north 4-30 Clay SC; 5-3 Marshall SV; 5-9 Morrison LSR; late south 5-21 Hennepin OLJ.

Louisiana Waterthrush

4 reports 4-30 (1) and 5-8 (1) Hennepin ETS; 5-3 Mower (1) RK; 5-10 Goodhue PVK.

KENTUCKY WARBLER

2 reports: 5-7 Hennepin (1) M. Johnson and 5-8 Lyon (1) (Mrs. W. F. Vance).

Connecticut Warbler

17 reports from 5-11 to 6-1 from Hennepin (9), Olmsted (11); Rock (1); Carlton (11); Freeborn (1); Cottonwood (1); Lyon (1); Anoka (1); Blue Earth (1).

Mourning Warbler

Early south 5-10 Hennepin KG; 5-13 Wabasha VH; 5-14 Olmsted JF; early north 5-20 Itasca MS; 5-21 St. Louis MMC; late south 5-31 Rock RDi, OLJ and 6-1 KE.

Common Yellowthroat

Early south 5-1 Hennepin OLJ, JC, DY, and Rock KE; 5-2 Hennepin ETS, PVK; early north 5-8 Morrison LSR; 5-10 Mille Lacs MI; 5-11 Mille Lacs LP.

HOODED WARBLER

2 reports: 5-14 to 5-16 Hennepin (1 male) many observers; 5-8 Le Sueur (1 female) RAG.

Wilson's Warbler

Early south 5-4 Freeborn RK; 5-6 Hennepin OLJ, JC, DY, PG; 5-8 Rock KE; early north 5-13 St. Louis GJN; 5-14 Morrison LSR and Itasca MS; late south 5-31 Hennepin WKE and Rock RBJ, GLO, LAF.

Canada Warbler

Early south 5-11 Hennepin PAZ; 5-13 Hennepin EPRD; 5-14 Goodhue ETS; early north 5-17 Mille Lacs MI; 5-21 St. Louis MMC; late south 5-31 Rock OLJ.

American Redstart

Early south 9 reports on 5-6; early north 5-11 Mille Lacs MI, LP; 5-13 St. Louis GJN; 5-14 St. Louis JCG and Marshall SV.

House Sparrow

Reported from 25 counties.

Bobolink

Early south 4-20 Jackson RD; 5-3 Hennepin JC, DY; 4 reports on 5-5; early north 5-9 Otter Tail MS; 5-10 Morrison DAF and Pine GA.

Eastern Meadowlark

Early south 3-6 Yellow Medicine GLO; 3-7 Freeborn DG; early north 3-22 Mille Lacs MI; 4-19 Aitkin GJN; also 1 report from the southwest 4-12 to 5-31 Rock KE.

Western Meadowlark

Early south 3-1 Yellow Medicine CF; 3-10 Yellow Medicine GLO; 3-11 Murray ADK; early north 3-17 Becker TRS; 3-28 Clay LCF; 4-10 Marshall SV.

Yellow-headed Blackbird

Early south 4-2 McLeod DB; 4-12 Chippewa RAG; 4-16 Murray ADK; early north 4-10 Marshall SV; 4-20 Clay ABNGP.

Red-winged Blackbird

Early south 3-1 Goodhue CF; 3-6 Hennepin PF; early north 4-10 Mille Lacs MI and St. Louis P. Lukens; 4-11 St. Louis MMC.

Orchard Oriole

27 reports from 5-4 to 5-31 from Rock, Lac Qui Parle, Goodhue, Hennepin, Jackson, Wabasha, Murray, Freeborn, Pipestone, Marshall (5-20 1 ad male SV); breeding status unknown in NW.

Northern Oriole

Early south 4-6 Washington GA; 4-29 Goodhue RAG and Lyon HCK; 4-30 Stearns NMH and Cottonwood LAF; early north 5-6 Morrison LSR; 5-7 Cass HRH and Mille Lacs MI.

Rusty Blackbird

Early south 3-1 Goodhue; 3-15 Swift HH; 3-20 Rock KE and Rice OAR; early north 4-20 Aitkin JB; 4-21 and 5-3 Marshall SV; 4-21 and 5-14 St. Louis MMC; late south 5-3 Lyon HCK.

Brewer's Blackbird

Early south 3-15 Lac Qui Parle OLE; 3-23 Goodhue CF; early north 4-14 Crow Wing TS; 4-15 Becker TRS; 4-16 Crow Wing S. Blanich.

The Loon

Common Grackle

Early south 3-1 Goodhue CF, and Hennepin DY; 3-5 Hennepin PG; early north 3-14 Hubbard HJF; 3-22 Crow Wing TS; 4-1 Mille Lacs MI.

Brown-headed Cowbird

Early south 3-19 Olmsted FKS; 3-29 Blue Earth VR and Olmsted JF; early north 4-14 St. Louis JCG and Marshall SV; 4-19 Aitkin GJN.

Scarlet Tanager

Early south 4-30 Rice RD; 5-2 Hennepin OLJ; 5-5 Olmsted VH; early north 5-17 St. Louis NJH; 5-22 St. Louis GJN.

SUMMER Tanager

1 report of this casual species: 5-11 Hennepin (1) BDC.

Cardinal

6 reports north from 5-2 to 5-24 in Hubbard, St. Louis, Becker, Crow Wing Co's.

Rose-breasted Grosbeak

Early south 4-4 Washington GA; 4-24 Freeborn DG; 4-26 Olmsted JF; early north 4-30 Clay SC; 5-5 Cass HRH; 5-6 Morrison LSR.

Blue Grosbeak

5-24 Rock (1) KE; MOU weekend 5-31, 6-1 up to 8 seen in 4 areas, many observers.

Indigo Bunting

Early south 4-24 Freeborn DG; 5-5 Wabasha WDM; 5-6 Hennepin RAG; early north 5-21 St. Louis MMC.

Dickcissel

Early south 4-23 Hennepin JC, DY, earliest date on record; 5-2 and 5-4 Lyon NH; 5-15 Murray ADK.

Evening Grosbeak

Reported from 16 counties; late 5-22 St. Louis GJN and Hubbard HJF; 5-31 St. Louis GJN.

Purple Finch

Late south 5-13 Hennepin VRL, WKE; 5-24 Hennepin FN; early north 3-15 Mille Lacs MI; 3-20 St. Louis HJF.

Pine Grosbeak

6 reports 3-1 St. Louis GJN; 3-2 Sherburne RBJ; 3-4 St. Louis MMC; 3-5 and 3-15 Marshall SV; 4-10 Rice MC.

Hoary Redpoll

2 reports: 3-8 and 4-6 Clay LCF.

Common Redpoll

Late south 3-6 and 4-2 Stearns NMH; late north 4-13 St. Louis GJN; 4-15 Marshall SV.

Pine Siskin

Late south 5-10 Stearns NMH; 5-18 Hennepin VRL.

American Goldfinch

Early north 3-10 Mille Lacs MI; 5-11 St. Louis JCG.

Red Crossbill

4 reports: 3-1 and 3-3 Goodhue CF; 4-21 Cass AES; 5-3 St. Louis NJH.

Rufous-sided Towhee

Early south 4-27 Freeborn DG and Lyon RBJ; 3 reports on 4-28; early north 5-6 St. Louis B. Johnson; 5-15 St. Louis GJN; 5-15 Cook MMC and Crow Wing JB.

Lark Bunting

5-31 Pipestone (1) RAG, RBJ; 5-30, 5-31 Rock (6 male, 1 female) L. Campbell, (4) ETS, 5-31 (4 male, 1 female) KG, 5-31 (1 male) KE; 7 male and 1 female reported on MOU weekend 5-31, 6-1 Rock Co.

Savannah Sparrow

Early south 4-19 Dakota BDC and Lyon HCK; 4-20 Cottonwood LAF; early north 4-21 Crow Wing JB, TS; 4-25 Marshall SV; 5-5 St. Louis GJN.

Grasshopper Sparrow

Early south 4-23 Hennepin JC, DY; 5-3 Rice OAR, RBJ; 5-10 Cottonwood RAG; reports north 5-3 Otter Tail GLO; 5-15 Clay F. Cassel.

Le Conte's Sparrow

4 reports: 4-27 Stevens PG, JC, DY; 5-7 Hennepin OLJ; 5-18 Jackson R. Wagner; 5-28 St. Louis (1) GJN.

Henslow's Sparrow

1 report 5-22 Winona WDM, RL.

Sharp-tailed Sparrow

3 reports: 5-4 and 5-30 Rock (Blue Mounds State Park) HCK; 5-3 Swift (2) HH.

Vesper Sparrow

Early south 4-12 Hennepin EPRD; 5 reports on 4-13; early north 4-21, 4-22 Crow Wing TS, JB; 4-21 to 4-24 Marshall SV; 4-22 Crow Wing JB; 4-26 Mille Lacs MI.

Lark Sparrow

Early south 5-2 Anoka REH; 5-3 Rock KE; 5-8 Anoka SC and Le Sueur RAG; only report north 5-14 and 5-15 St. Louis (1) JCG.

Dark-eyed Junco

Late south 5-7 Hennepin WKE; 5-11 Lyon HCK; early north 3-1 St. Louis MMC; 3-16 Becker TRS; 3-21 Clay LCF.

Tree Sparrow

Early north 3-21 Marshall SV; 3-29 Clearwater RCD and Morrison LSR; late 5-15 Becker TRS.

Chipping Sparrow

Early south 3-10 Olmsted M. Burlington, earliest date on record; 3-31 Hennepin JC, DY; 4-13 Anoka BHB; early north 4-19 Hubbard HJF; 5-1 Beltrami AJM; 5-2 St. Louis JCG, Crow Wing TS.

Clay-colored Sparrow

Early south 4-13 Rock KE; 4-19 Dakota BDC; 4-21 Hennepin JC, DY; early north 3-13 St. Louis (3) GJN details?; earliest date on record by 1 month, no March records; 5-3 St. Louis JCG and Otter Tail GLO; 5-4 Clay SC, LCF and Beltrami AJM.

Field Sparrow

Early 4-16 Goodhue KG, ETS, RAG and Hennepin PG; 4-17 Goodhue CF.

Harris' Sparrow

Early south 5-2 Murray ADK; 5-3 Rock KE and Hennepin EPRD; early north 5-1 Clay LCF; 5-7 Beltrami AJM; 5-9 Marshall SV; late 5-18 Lyon NH; 5-20 St. Louis JCG.



TRUMPETER SWAN, Wood Lake, Minneapolis, Jerry Sivets



PINE WARBLER, Crosby, Steve Blanich



GREATER SCAUP, Wood Lake, Minneapolis, Jerry Sivets



NORTHERN PHALAROPE, Duluth, Marj Carr

White-crowned Sparrow

Early south 4-17 Stearns MC; 4-26 Lac Qui Parle OLE; 5 reports on 4-29; early north 4-25 Cass HRH; 4-27 Traverse PG; 5-2 Crow Wing TS; late 5-18 Pipestone KE.

White-throated Sparrow

Early south 3-7 Hennepin CLH; 4-12 Freeborn DG; 4-13 Wright BAH; early north 4-22 Crow Wing JB; 4-25 Itasca MS; 3 reports on 4-26; late south 5-19 Hennepin VRL.

Fox Sparrow

Early south 3-8 Freeborn DG; 3-20 Olmsted JF; 3-29 Cottonwood LAF; early north 4-14 Morrison LSR; 4-15 Crow Wing TS; 4-16 Marshall SV and St. Louis JCG; late 5-9 Becker TRS.

Lincoln's Sparrow

Early south 4-14 Lyon NH; 4-18 Hennepin VRL, JC, DY; 4-21 Hennepin OLJ; early north 4-17 Clay LCF and Itasca MS; 4-30 Clay SC; late south 5-25 Cottonwood LAF.

Swamp Sparrow

Early south 3-18 Dakota EWJ; 4-12

Murray ADK; 4-13 Hennepin PG and Winona RD; early north 4-17 Clay SC and Clearwater RCD; 4-19 Aitkin GJN and Kanabec PF.

Song Sparrow

Early south 3-1 Freeborn DG; 3-8 Hennepin OLJ; 3-20 Goodhue CF; early north 4-14 Mille Lacs MI; 4-15 Morrison LSR and Aitkin TS.

Lapland Longspur

Early south 3-1 Yellow Medicine GLO; 3-23 Lyon HCK; 3-28 Hennepin HCK; early north 3-21 Marshall SV; 4-27 Clay ABNGP; late 5-31 St. Louis BL, JCG, H. Huber.

Smith's Longspur

2 reports: 5-10 Cottonwood (4 females, 1 male) RAG, RBJ; 5-17 St. Louis (1 male) KE, HCK, TS.

Chestnut-collared Longspur

2 reports: 4-26 Lac Qui Parle CF; 4-27 Big Stone PG, JC, DY.

Snow Bunting

Late south 4-29 and 5-1 Lyon NH; late north 4-30 St. Louis JCG.

CONTRIBUTORS

Agassiz National Wildlife Refuge
Staff, AR
American Birds — Northern Great
Plains Report, ABNGP
Gary Ash, GA
Jo Blanich, JB
Don Bolduc, DB
Byron H. Bratlie, BHB
Betty and Doug Campbell, BDC
Steve Carlson, SC
Marjorie M. Carr, MMC
Horace F. Chamberlain, HFC
Jim Cole, JC
Mable Coyne, MC
Richard C. Davids, RCD
Mrs. Arnold De Kam, ADK
Rich Dietman, RD
Richard Duerksen, RD
Whitney and Karen Eastman, WKE
Kim Eckert, KE
Mrs. O. L. Eckhardt, OLE
Craig Faanes, CF
Laurence and Carol Falk, LCF

Percy Fearing, PF
Mrs. L. A. Feil, LAF
David A. Fiedler, DAF
Herbert J. Fisher, HJF
Joan Fowler, JF
Pepper Fuller, PF
Raymond A. Glassel, RAG
Janet C. Green, JCG
Doris Gregerson, DG
Karol Gresser, KG
Pete Groves, PG
Harold R. Hanson, HRH
Helen Hatlelid, HH
Vince Herring, VH
Nels J. Hervi, NJH
Nestor M. Hiemzen, NMH
Bruce A. Hitman, BAH
Netter Holm, NH
Robert E. Holtz, REH
Charles F. Horn, CH
M. Ivanovs, MI
Robert B. Janssen, RBJ
Oscar L. Johnson, OLJ

Mrs. E. W. Joul, EWJ
Paul and Virginia Kubic, PVK
Ronald Kneeskern, RK
Henry C. Kyllingstad, HCK
Violet and Ruth Lender, VRL
Fredrick Leshner, FL
Mrs. Rollyn Lint, Sr., RL
Bill Litkey, BL
Wm. H. Longley, WHL
Wynn and Don Mahle, WDM
Ann and John Mathisen, AJM
Gerald J. Niemi, GJN
Fran Nubel, FN
Gary L. Otnes, GLO
Employees of Park Reserve
District, EPRD
Lloyd Paynter, LP
Vada Rudolph, VR
Lester Rupp, LR

Orwin A. Rustad, OAR
L. S. Ryan, LSR
Terry Savaloja, TS
Mrs. A. Edward Schmid, AES
Madeline Schuller, MS
Beatrice A. Smith, BAS
Nora Mae Smith, NMS
Evelyn T. Stanley, ETS
Douglas A. Stein, DAS
Forest and Kirsten Strnad, FKS
Dennis W. Strom (Big Stone
NWR), DWS
Helen Tucker, HT
James J. Williams, JJW
Mark Wright, MW
Delys Yell, DY
Paul A. Zucker, PAZ
**Box 244,
Deerwood, Minnesota 56444**

LOON SONG

To the wild hysteria of an ecstatic loon
Leave your beds of sleep.
While the sun shoves back the lake
mist,
Like a young man casting off his bed
sheets,
Go down to the waters and onto the
lake.
The waves of the loon song
Will make you come.
Come closer, even though the boat
squeaks
And the loons dive from the sound,
Lost from sight;
They re-appear, eyes red in the sun.

And when you are close
Throw your penny — brown penny —
Into the sun-flecked waters
Of a silent northern lake.

Chuck Bergman

WILDLIFE UTILIZATION OF BEAVER FLOWAGES ON THE CHIPPEWA NATIONAL FOREST, NORTH CENTRAL MINNESOTA¹

by Ronald E. Kirby

Abstract:

Beaver flowages on the Chippewa National Forest were observed in 1970 and 1971. Use by a total of 177 species of vertebrates was recorded from 15 April to 1 November. It is concluded that beaver create a rather unique integration of habitats in northern forests, and through a mixing of species from different communities and/or the addition of species adapted to the ecotones between communities, provide habitat for most species of vertebrates found in northern Minnesota.

Study Area

During 1970 and 1971, detailed data were collected on the physical, chemical and biological variables of beaver flowages of the Chippewa National Forest, north central Minnesota (Kirby, 1973). An overall project goal was to develop a base line for later assessment of man-made impoundments on the Forest. Although the study emphasized waterfowl utilization of the flowages, this presentation of data collected on all vertebrates utilizing beaver-created water areas places in clearer perspective the role of beaver flowages in the total available habitat of the Forest.

The Chippewa National Forest is located in north central Minnesota. The Forest lies between latitudes 46° 59' and 47° 51' north, and longitudes 93° 17' and 94° 40' west, encompassing the southeast corner of Beltrami County, north west and north central Itasca County, and the northern two-thirds

of Cass County.

The National Forest boundaries enclose an area of more than 1.3 million acres, slightly less than half of which (49 percent) is under Federal ownership. There are 332,513 acres of lakes 10 acres or larger on the Chippewa (Mathisen 1965) and 252,075 acres of wetlands in excess of 2 acres in size (Mathisen 1966). On Federal commercial forest-land, the major forest composition is approximately 55 percent aspen-birch, 15 percent pines, 14 percent lowland conifers and 15 percent other upland hardwoods (Timber Management Plan for the Chippewa National Forest, 1962 datum). The forest cover within a circle of 1.5 mile radius around each of the beaver flowages studied in detail had an average composition of approximately 34 percent aspen-birch, 27 percent pines, 12 percent lowland conifers and 7 percent other upland hardwoods (calculated from Kirby 1973:211-223).

Methods

For the purposes of this study, a beaver flowage was defined as a body of water and associated wetlands owing its existence primarily to the activities of beaver. The flowages of the Chippewa Forest were inventoried in 1970. From the total complement, 10 flowages representative of various ages and sizes of flowages on the Chippewa were selected for intensive observation in 1971 (Table 1). Blinds were constructed on each flowage so that they were hidden from the wildlife on the flowages and so that 100 percent of the flight space over each flowage and at least 75 percent of the flowage area was visible from a single

¹Based on material presented in a thesis submitted to Southern Illinois University in partial fulfillment of the requirements for the degree Master or Arts in Zoology.

site. Depending upon the physiography of the flowage, the blinds were either on the ground or placed in trees at various heights ranging from 4 to 15 meters. Two standard observation periods in each day (sunrise to three hours after sunrise and three hours before sunset to sunset) were supplemented by three-hour midday observations and a small number of dawn to dusk observations on each of the flowages from the single observation site. Areas around the dam and portions of

the surrounding uplands were searched weekly for scats and tracks, and searches were made for nests of birds and mammals in the uplands between the flowage margin and an arbitrary border 100 meters from the flowage spring high-water line. During the observation periods, all wildlife observed were recorded with specific notes on age, sex, species, number in group, activity, interactions with other species, and duration of presence on the flowage.

Table 1. Ages, areas, and cover types (condensed) of 10 beaver flowages on the Chippewa National Forest, 1971 (Date collected 20 May unless otherwise noted).

Flowage Number	Age (Years)	Total Area ^a (Acres)		Lowland Brush ^b Associations (Acres)	Standing ^c Dead Trees (Acres)	Emergent ^d Associations (Acres)		Open Water (Acres)
		20 May	17 July			20 May	17 July	
125	23	15.46	12.65	8.96	2.25	2.37	2.47	3.12
222	23	8.24	5.78	3.64	3.45	0.27	2.44	0.83
285	3-4	19.82	19.82	15.86	2.44	0.55	0.88	5.32
300	22	19.96	12.57	9.21	5.73	7.28	5.58	6.84
310	16-17	26.70	26.66	15.43	6.43	1.33	0.72	1.68
425	3-4	15.14	11.22	2.33	14.82	0.52	1.33	8.16
435	16-17	4.81	4.60	0.00	1.11	0.09	0.55	3.93
600.34	9	5.48	5.22	0.00	5.07	0.00	0.00	5.07
730	24	8.35	8.35	0.00	0.00	0.93	4.87	5.22
754	24	12.65	12.65	0.54	2.29	9.88	9.96	1.79

^a The total area does not equal the sum of the parts since some cover type associations could be placed in two or more categories in this summary.

^b A combination of 6 quantitatively differentiable cover type associations consisting of wetland stands in the sense of Cowardin and Johnson (1973) dominated by lowland brush (largely *Alnus* spp. and *Salix* spp.). Dominant vegetation was defined as that vegetation having the largest areal extent on large scale aerial photographs.

^c As in ^b but consisting of 3 associations dominated by dead hardwoods.

^d As in ^b and ^c but consisting of 11 associations dominated by emergent wetland vegetation of numerous species.

Between 15 April and 1 November (200 days), the period during which open water was present on some portion of all of the flowages, the 10 study areas were visited on 233 different occasions or approximately one visit to each flowage every 8.5 days of the ef-

fective study season. The data presented below are taken from these observations and from visits to other flowages on the Chippewa Forest in 1970 and 1971.

Results

The vertebrates observed on the

flowages or in the immediately surrounding uplands included 37 mammalian species, 129 species of birds and 11 species of reptiles and amphibians (Table 2). Since only those species with a breeding record (in lit. or personal knowledge) from the Chippewa National Forest or immediate vicinity have been included in Table 2, the totals for the bird species are minimal. Likewise, the records for nest observations are minimal due to restrictions on the scope and thoroughness of such searches demanded by the necessity to refrain from disturbing the waterfowl on the flowages.

Discussion

Beaver-wildlife relationships have received considerable attention in the recent literature. Beard (1953, 1964), Hodgdon and Hunt (1955), Speake (1955), Spencer (1957), Knudson (1962), Hanson and Campbell (1963), Rutherford (1955), Stantop (1965), Nevers (1968), and Renouf (1972), are a few of the authors that have concluded that, except in relation to cold-water fish species, beaver activities are generally beneficial to other wildlife. The large number of vertebrates observed around the beaver flowages on

Table 2. Vertebrates utilizing habitat on and around beaver flowages on the Chippewa National Forest from 15 April to 1 November, 1970 and 1971.

Species	Type Observation ₂		Type Observation ₂	
	Adult(s)	Young and/or Nest	Adult(s)	Young and/or Nest
MAMMALS				
Northern Water Shrew	V'			
Pygmy Shrew	V			
Shorttail Shrew	V'			
Star-nosed Mole	V'			
Little Brown Myotis	V'	V		
Big Brown Bat	V			
Black Bear	V	V		
Raccoon	V	V'		
Shorttail Weasel	V			
Least Weasel	V'			
Longtail Weasel	V			
Mink	V	V		
River Otter	V	V		
Striped Skunk	V	V		
Coyote	V			
Gray Wolf	C			
Red Fox	V	V		
Lynx	V			
Bobcat	S	S		
Woodchuck	V	V		
Thirteen-lined Ground Squirrel	V	S		
Eastern Chipmunk	V'	V		
Red Squirrel	V'	V		
Northern Flying Squirrel	V'	S		
Plains Pocket Gopher	S			
Beaver	V	V		
Deer Mouse	V'			
White-footed Mouse	V'	V		
Southern Bog Lemming	V'			
Boreal Redback Vole	V'	V		
Meadow Vole	V	V		
Muskrat	V	V		
Meadow Jumping Mouse	V			
Woodland Jumping Mouse	V			
Porcupine	V	V'		
Snowshoe Hare	V'	V'		
Whitetail Deer	V	V		
BIRDS				
Pied-billed Grebe	V	V		
Mallard	V	V		
Black Duck	V	V		
American Wigeon	V	V		
Blue-winged Teal	V	V		
Green-winged Teal	V	V		
Wood Duck	V	V		
Ring-necked Duck	V	V		
Common Goldeneye	V	V		
Bufflehead	M			
Hooded Merganser	V			
Turkey Vulture	V			
Goshawk	V	V		
Cooper's Hawk	V			
Sharp-shinned Hawk	V	V		
Marsh Hawk	V			
Rough-legged Hawk	M			
Red-tailed Hawk	V	V		
Broad-winged Hawk	V	V		
Bald Eagle	V	V		
Osprey	V	V		
American Kestrel	V	V		
Ruffed Grouse	V	V		
Great Blue Heron	V	V		
Green Heron	V	V		
American Bittern	V	V		
Least Bittern	V	C		
Virginia Rail	V	V		
Sora	M	V		
American Coot	V	V		
Killdeer	M	V		
Spotted Sandpiper	V	V		
American Woodcock	V	V		
Common Snipe	V	V		
Black Tern	V	V		
Black-billed Cuckoo	V	V		
Screech Owl	M	V		
Great Horned Owl	V	V		
Barred Owl	V	V		
Common Nighthawk	V	V		
Chimney Swift	V	V		
Ruby-throated Hummingbird	V	V		
Belted Kingfisher	V	V		
Common Flicker	V	V		
Pileated Woodpecker	V	V		
Yellow-bellied Sapsucker	V	V		
Hairy Woodpecker	V	V		
Downy Woodpecker	V	V		
Black-backed Three-toed Woodpecker	M	V		
Eastern Kingbird	V	V		
Great Crested Flycatcher	V	V		
Eastern Phoebe	V	V		
Trall's Flycatcher	V	V		

¹Only those species observed on the area, i.e. flying over the flowage would not count, and known to breed in northcentral Minnesota are included.

²V=visual observation of the animal; S=no visual observation, but sign such as scats or tracks found; C=only call or song recorded; M=visual observation only during the non-breeding season. A letter with a prime indicates that a specimen was additionally either captured or found dead.

Species	Type Observation ₂		Species	Type Observation ₂	
	Adult(s)	Young and/or Nest		Adult(s)	Young and/or Nest
Least Flycatcher	V		Connecticut Warbler	V	
Eastern Wood Pewee	V		Wilson's Warbler	M	
Olive-sided Flycatcher	V		Candada Warbler	V	
Barn Swallow	V		American Redstart	V	
Cliff Swallow	V		Red-winged Blackbird	V	V
Tree Swallow	V	V	Brewer's Blackbird	M	
Rough-winged Swallow	M		Common Grackle	M	
Purple Martin	V		Brown-headed Cowbird	V	
Blue Jay	V		Northern Oriole	V	V
Gray Jay	V		Scarlet Tanager	V	V
Common Raven	M		Evening Grosbeak	M	
Common Crow	V	V	Rose-breasted Grosbeak	V	V
Black-capped Chickadee	V		Purple Finch	V	
Tufted Titmouse	M		Pine Grosbeak	M	
White-breasted Nuthatch	V	V	Common Redpoll	M	
Red-breasted Nuthatch	V		Pine Siskin	V	
Brown Creeper	V		American Goldfinch	V	
Long-billed Marsh Wren	V		White-winged Crossbill	M	
Winter Wren	V		Rufous-sided Towhee	V	
Gray Catbird	V		Savannah Sparrow	V	
American Robin	V	V	Le Conte's Sparrow	V	
Wood Thrush	V		Vesper Sparrow	V	
Hermit Thrush	V		Dark-eyed Junco	V	
Veery	V	V	Tree Sparrow	M	
Golden-crowned Kinglet	M		Chipping Sparrow	V	V
Ruby-crowned Kinglet	M		Clay-colored Sparrow	V	
Cedar Waxwing	V		White-throated Sparrow	V	V
Yellow-throated Vireo	V		Fox Sparrow	M	
Solitary Vireo	V		Swamp Sparrow	V	
Red-eyed Vireo	V	V	Song Sparrow	V	V
Black-and-white Warbler	V		Snow Bunting	M	
Golden-winged Warbler	V				
Tennessee Warbler	V		REPTILES AND AMPHIBIANS		
Nashville Warbler	V		Snapping Turtle	V	
Northern Parula	V		Western Painted Turtle	V	V
Yellow Warbler	V		Northern Red-bellied Snake	V	
Magnolia Warbler	V		Eastern Garter Snake	V	V
Cape May Warbler	M		Eastern Tiger Salamander	V	
Yellow-rumped Warbler	V		American Toad	V	V
Blackburnian Warbler	V		Northern Spring Peeper	V	V
Chestnut-sided Warbler	V		Eastern Gray Treefrog	V	V
Bay-breasted Warbler	V		Western Chorus Frog	V	V
Pine Warbler	V		Northern Leopard Frog	V	V
Ovenbird	V	V	Mink Frog	V	V
Common Yellowthroat	V	V			

the Chippewa National Forest lends further support to this simple generalization.

On most of the beaver flowages, 4 species of mammals, 22 species of birds, and 6 species of reptiles and amphibians would not have been observed if the open water portions of the flowages had not been present. The remaining wildlife observed included a number of species preferring at least seasonally wet areas and many species that feed or nest in wetland areas throughout their range. For example, woodpeckers were attracted to the flowages by the abundance of dead and dying trees and raptors were attracted by the abundance of perch locations and the high visibility in the openings around the flowage margin. The abundance of game trails both around the flowage margins and leading to the flowage from the surround-

ing uplands indicated high use by many mammals. Deer and bear were common on all of the flowages. Raccoons, skunks, foxes, coyotes and bobcats regularly traveled the flowage margins.

Knudson (1962:6-16) reviewed the typical ecological changes resulting from beaver activity and discussed the general physical changes in the basin that occur with the construction and removal of a beaver dam. In areas where beaver flowages become a permanent portion of the environment, vegetation succession will begin to reflect the change in surface water level. Trees and shrubs previously rooted in soils above the water table will within a season become rooted in saturated soils on the edges of the flowage or inundated above the root crown to varying degrees. Areas within the zone of influence of the beaver activity

gradually become converted from mesosere to hydrosere. As long as the beaver flowage is present, the hydrosere is a fairly stable plant community. The removal of the food supply in the area usually terminates the beaver occupancy with successive colonies reusing the same sites at intervals related to the time necessary for reforestation of the surrounding uplands. Two aspects of the flowages of importance to wildlife can thus be identified. First, "different" habitat is made available when beaver construct a dam in a drainage. Secondly, and probably of more importance, greater amounts of "edge" are made available. By simple geometry, even a theoretical minimum surface area flowage in a monospecific upland stand would increase the area of edge by a factor of diameter. When surrounded by many juxtaposed plant communities, the amount of edge is very large. It is rather common knowledge that species number as well as number of individuals is highest at the interface between habitat

types. An increase in number of individuals at the interface could be due to increased productivity, i.e. some sort of peripheral enhancement. This aspect was not investigated on the flowages. An increase in the number of species at the interface could be due to either a mixing of species from different communities and/or the addition of species adapted to the ecotones between communities.

Regardless of which of the latter two factors is the most important, the number of species using the flowages observed in 1970 and 1971 suggests that beaver create a rather unique integration of habitats in northern forest areas.

This work was supported by the Max McGraw Wildlife Foundation, Dundee, Illinois, and the U.S. Forest Service through the Chippewa National Forest and The North Central Forest Experiment Station, St. Paul. W. D. Klimstra, and J. N. Krull are thanked for their timely advice. J. S. Gull and J. E. Mathisen reviewed the manuscript.

Literature Cited

- Beard, Elizabeth B. 1953. The importance of beaver in waterfowl management at the Seney National Wildlife Refuge. *J. Wildl. Manage.* 17(4): 398-436.
- Beard, Elizabeth B. 1964. Duck brood behavior at the Seney National Wildlife Refuge. *J. Wildl. Manage.* 28(3): 492-521.
- Hanson, W. D. and R. S. Campbell. 1963. The effects of pool size and beaver activity on distribution and abundance of warm-water fishes in a north Missouri stream. *Am. Midl. Nat.* 69(1):136-149.
- Hodgdon, K. W. and J. H. Hunt. 1955. Beaver Management in Maine. Maine Dept. Inland Fisheries and Game, Game Div. Bull. 3. 102pp.
- Kirby, R. E. 1973. Utilization of beaver flowages by waterfowl on the Chippewa National Forest. Minnesota. M. A. Thesis. Southern Illinois University. 264pp.
- Knudsen, G. J. 1962. Relationship of beaver to forests, trout and wildlife in Wisconsin. *Wis. Cons. Dept., Tech. Bull.* 25, Madison, Wis. 52pp.
- Mathisen, J. E. 1965. Wildlife management plan. Wetlands of the Chippewa National Forest. USDA Forest Serv., USDI Bur. Sport Fish. and Wildl. and Minn. Dept. Conserv. 17pp.
- Mathisen, J. E. 1966. A supplement to "Wetlands of the Chippewa National Forest." USDA Forest Serv. Chippewa National Forest. 4pp mimeo.
- Nevers, H. P. 1968. Waterfowl utilization of beaver impoundments in southeastern New Hampshire. *Trans. N.E. Sect. Wildl. Soc.* 25:105-120.
- Renouf, R. N. 1972. Waterfowl utilization of beaver ponds in New Brunswick. *J. Wildl. Manage.* 36(3):740-744.

- Rutherford, W. H. 1955. Wildlife and environmental relationships of beaver in Colorado forests. *J. For.* 53 (11):803-806.
- Speake, D. W. 1955. Waterfowl use of creeks, beaver swamps and small impoundments in Lee County, Alabama. *Proc. Southeast Assoc. Fish Game Commissioners.* 13:178-185.
- Spencer, H. E. Jr. 1957. Waterfowl-beaver relations study completion report. Job 7-A, Proj. W-37-R-5 and 6. State Wildlife Survey. Maine Dept. Inland Fish Game. 11pp. mimeo.
- Stanton, P. B. 1965. An evaluation of waterfowl utilization on the black duck (*Anas rubripes*). M. S. Thesis, Univ. Massachusetts. 112pp.
- Department of Ecology and Behavioral Biology, University of Minnesota, St. Paul, Minnesota 55101.**

notes of interest

LAUGHING GULL AT STONEY POINT — On August 16, 1975, Paul Ege-land, Ray Glassel and I were birding in the Duluth area when we decided to go to Stoney Point which is located about 20 miles up the shore of Lake Superior from Duluth in St. Louis County. We birded in the area for about 30 minutes and then drove down to the area of the local fishermen's dock. There was a flock of about 40-50 Herring Gulls on the water. Most of these birds were adults, but, there were four or five immature birds in the flock. Paul was the first to spot a darker, smaller gull on the far edge of the flock about 50 yards from us. He at first thought the bird was a jaeger, but, on second look we all knew it was either an immature Franklins' or Laughing Gull. We could almost immediately eliminate the former because of the overall darkness of the bird. The bird was about the size of a Franklin's Gull, smaller than a Ring-billed Gull and much smaller than the Herring Gulls it was with. The head, including the forehead and nape was an even brown color with the exception of a broken, thick eye ring on the top and bottom of the eye. This eye ring appeared accentuated because of the darkness of the head. The back was the same brown color as the head. The tops of the wings were also brown except the trailing edge which was white. The rump and upper tail were white, the tail had a wide black terminal band. This band was wider than that of a Ring-billed Gull. On the under parts the chin and throat were white, the sides of the chest were a diffused brown not as dark as the head or back. The brown did not extend all the way across the chest, but, became lighter and more diffused giving the central breast area a light appearance. The belly and under tail were white. The bill was dark and Paul noted the leg color as black. The wings extended several inches beyond the tail. All of these characters added up to an immature Laughing Gull. We watched the bird on the water for about 10 minutes. It flew several times for short flights and then when most of the Herring Gulls took flight (a fishing boat docked in the area) the Laughing Gull also took to the air and circled over us. The Herring Gulls returned to the water, but, this bird disappeared down the shore and in spite of our remaining in the area for over an hour we did not see the bird again. This observation represents the first record for the Laughing Gull in Minnesota. The species has been increasing in numbers on the Great Lakes with almost regular occurrence on

Lake Michigan in Wisconsin and Michigan, and on Lake Erie south of Detroit, Michigan. These records have been reported in the last several issues of "American Birds." **Robert B. Janssen, 14321 Prince Place, Minnetonka, Minnesota, 55343, Ray Glassel, 8219 Wentworth Avenue South, Minneapolis, Minnesota 55420, and Paul Egeland, 12 East 67th Street, Minneapolis, Minnesota 55423.**

THIRD RECORD FOR THE BAND-TAILED PIGEON IN MINNESOTA — While coming up to stop #28 on my St. Stephens Breeding Bird Census, at 7:25 A.M. on June 23, 1975, two miles southwest of St. Joseph, Stearns County, I noticed what appeared to be five Mourning Doves and a large, stockier bird, evidently a pigeon, on the roadside electric wires. I pulled up to the stop and sure enough there were five Mourning Doves and the other bird was also a member of the same family, but, one I had never seen before — a Band-tailed Pigeon. It had a shorter tail than the Mourning Doves, broad, grayish at the ends and with a dark band, about an inch from the tip. The rump was gray. It was pinkish below and had a yellow bill with a dark tip. Although I omitted it in my notes I recall a white collar around the nape. I examined the bird through my 8x40 binoculars at a distance of about 25 feet for a minute or more. When I stepped out of the car to continue my bird count, all six of the birds flew some distance across a field. **Nestor M. Hiemenz, 705 18th Avenue South, St. Cloud, Minnesota 56301.**

SABINE'S GULL AT DULUTH — On August 30, 1975 Paul Egeland and I were birding at Duluth's Park Point. At about 8:30 a.m. we were looking out over Lake Superior from a sand dune near the airport. There was a moderate east wind blowing and a fog or cloud bank was approaching from the southeast partially obscuring the sun. We were watching for jaegers at the time since the date and weather seemed favorable, when Paul spotted a bird flying way out over the lake that he thought might be unusual. He called my attention to it, but the bird landed in the lake before I could spot it. However, about a minute later Paul again directed my attention to the same bird as it had taken off and began flying toward us. This time I spotted it when it was about 200 yards away. We both noted it to be a small gull with a tern-like flight, and since the bird was at our eye-level all we could see on the wings was a white area towards the center of the trailing edge which seemed to be set off by darker coloration on the rest of the wing. I asked Paul if he had as bad an angle on the bird as I did and said that if I saw what I thought I was seeing, this was a Sabine's Gull. Paul agreed since both of us had observed this species on Pacific Ocean pelagic trips, and we knew the wing pattern was so obvious as to stand out even at the distance and bad angle that the bird was from us. Finally about 100 yards away, the gull wheeled to reveal in full its striking wing pattern of black, white and grayish triangles and its curious black-tipped, notched tail. We simultaneously yelled "Sabine's Gull!" — probably loud enough to scare the bird away. The gull then landed in the lake briefly, took off again and landed next to some Ring-billed Gulls on the beach to our left about 80 to 100 yards away. Paul ran to his car to get his camera, but the gull took off again and flew north towards downtown. It again landed on shore about ¼ mile away, but when we tried to follow it and check points along the beach all the way back to the aerial lift bridge, we could not locate it again. A phone call had brought Jan Green and Marj Carr to the Point but they obviously were unable to arrive in time since the gull was in sight for only five minutes or so.

Below is a description of the bird as taken from our notes written just

after the bird was seen and before any field guides were consulted. Size: smaller than Ring-billed Gull and we guessed to it to be slightly larger than Bonaparte's Gull (though no Bonaparte's were around for comparison). Head and neck: all white except for blackish splotch on back of head (similar to fall Franklin's Gull). Tail: distinctly forked or notched with a narrow black tip thus forming a black V. Back: grayish (as in adult Sabine's, not brownish as in immature). Wings: black triangle on tips and leading outer edge; smaller white triangle on rear edge of wing at the center; rest of wings closest to body dark grayish or perhaps with some brownish (exact color not noted in flight, but when gull was at rest folded wings appeared all gray). The only other gull which would resemble what we saw would be an immature Black-legged Kittiwake, but the tail of our bird was too strongly notched, there was no black bar on the nape, and the black triangle on the wing tips definitely did not extend beyond the bend of the wing.

We would guess the gull we saw to be a second-year sub-adult: it had the black-tipped tail of the immature but the gray back and white head and neck of a winter adult. Sabine's Gulls are regular fall migrants offshore on the Pacific Ocean, but elsewhere they are very rare or casual vagrants, as likely to turn up inland as on the Atlantic coast or Great Lakes. Our sighting represents the second Minnesota record; the only other sighting being in 1944 at Stillwater. **Kim Eckert, Box 47, Garretson, South Dakota 57030.**

A PARASITIC JAEGER AT FREEBORN LAKE — Because records for any species of jaeger in Minnesota away from Lake Superior are of very casual occurrence I thought it worthwhile to report the sighting of an immature Parasitic Jaeger on Freeborn Lake, Freeborn County on August 28, 1975. Ray Glassel and I had been birding in the Rochester area during the morning when we decided to check out some of the lakes in Freeborn County. It was about 1:45 P.M. when we arrived at Freeborn Lake, the skies were mostly cloudy, but, light conditions were good, there was a 10 to 15 m.p.h. wind blowing out of the southwest. We were viewing the numerous terns, mostly Black, but, we did see two Common Terns, from the west side of the lake when I spotted a rather large dark gull-like bird far out, low over the lake. At first I thought it was an immature Herring Gull because of the dark coloration, but, almost immediately noted the long narrow falcon like wings, narrow body and white outer primaries from underneath. We lost the bird after less than a minute of observation. We were sure we had seen a jaeger, but, after searching for over a ½ hour we could not re-locate the bird. We circled the lake and found an access to the eastern shore about 2:30 P.M. Almost immediately we saw our bird setting on the water about 250 yards off shore. We viewed the bird with 8x30 and 9x35 binoculars and a 20X scope. After a few minutes the bird flew a few feet. We confirmed our original identification that the bird was a jaeger. The bird was slightly smaller than a Ring-billed Gull, long narrow wings, thin body. The back and wings from above were dark, the head was lighter than the back. As the bird flew we noted a light breast and belly. The wings from underneath were light toward the outer extremities. We noted no tail extension. From these field marks taken down while the bird was under observation and then reference to Robbins Field Guide we identified the bird as an immature Parasitic Jaeger. We watched the bird fly typical jaeger fashion out over the lake, first low over the water, then higher, undulating up and down as it went. It then changed course and flew higher and higher and then we lost sight of it — high over the town of Freeborn. In over 25 years of birding this is only my second observation of a jaeger in Minnesota and Ray's third in as many

years. The date of August 28 represents the earliest date this species has been recorded in southern Minnesota. **Robert B. Janssen, 14321 Prince Place, Minnetonka, Minnesota 55343.**

SUMMER RECORD OF GREAT GRAY OWLS IN AITKIN COUNTY — On the evening of June 12, 1975, my husband, Steve, Lloyd Paynter of Aitkin, Minn., and I saw an adult Great Gray Owl north of Aitkin in an area of spruce-tamarack bog along a farm service road due east of County Road 1 between Sections 5 & 8, T.48N, R.26W, Morrison Township, Aitkin County, Minn. This location was checked again by us within the next two weeks but no bird was seen. On Saturday, July 19, 1975, Byron Bratlie of Minneapolis, who was camping in the area, called to tell me he had seen a Great Gray Owl at the same location. On Sunday evening, July 20th, we checked this spot and seeing nothing at first, drove east along the service road to Hwy. 169, then back along the same road. When we had nearly reached Co. Rd. 1, we saw a large owl sitting on a short telephone pole under a taller utility pole. Another owl, appearing larger, flew from the south and fed this bird, which was constantly calling, then flew under a large bush about 100 feet ahead of the pole. We drove closer to the young bird, which sat for several minutes before flying south to the edge of an island of poplar trees in the bog. It was a Great Gray Owl, with the back of the head not fully feathered, therefore, the head was noticeably smaller than that of an adult. We then drove to the large bush where the adult bird had flown and it flew up onto



YOUNG GREAT GRAY OWL

Photo by L. Paynter

the bush directly opposite the car about 30 feet away, therefore, we were able to get a close view of the adult Great Gray Owl. Time was after sunset, the sky was clear, and light conditions were good for viewing with binoculars. We checked this area again the next evening, July 21st, and saw one young bird sitting on a pole farther east than the previous evening. Lloyd Paynter was attempting to photograph this bird as we arrived, but light conditions for photography were not good because the time was about 9:00 p.m. As I got out of the car, I could hear two birds calling, a loud KEE-EEK, and we spotted another young bird in a short dead bush about 100 feet from the road. It appeared at first to be smaller, and had quite a lot of down about the head. The photo of this bird is by Lloyd Paynter. When we tried to approach this bird, it flew to the edge of the poplar island, then appearing large, quite fully feathered, and having a long tail. The young bird which had been on the pole also flew to the edge of the poplar trees. After some time, the two birds tried to fly to the same pole, one landing, and one flying north to the top of a tall tamarack in a spruce-tamarack island in the bog. The two birds never stopped calling, but we did not see an adult bird. After some time, the bird on the pole flew north down into the bog.

The birds were seen again on:

- July 25** — 1 young on telephone pole (seen by Warren Nelson, Aitkin)
- July 26** — 2 adults and 2 young calling were seen on the west side of County Rd. 1 in tall tamarack trees (seen by Lloyd Paynter and Carl and Ardis Orjala)
- July 27** — 1 adult flying across Co. Rd. 1 from west to east (seen by Lloyd Paynter)
- July 31** — 2 young on telephone poles, one along the farm service road and one on the corner of Co. Rd. 1 and the farm service road (seen by Ardis Orjala and party and Richard Carlson)
- Aug. 2** — 2 adults, and 2 young were heard calling from east of Co. Rd. 1 and north of the farm service road in the spruce-tamarack island in the bog, and from west of Co. Rd. 1 in spruce-tamarack trees, and adults giving a low or deep sounding WHO. (by Warren Nelson, Steve & Jo Blanich, and Lloyd Paynter)

The birds were seen usually from 8 p.m. to 9:30 p.m. with sky conditions good. **Jo Blanich, Box 96, Crosby, Minnesota 56441.**

ROBIN NESTS IN ARTIFICIAL TREE — In the fall of 1974 I noticed some grasses in an artificial cedar tree by the front door of 5716 Londonderry, Edina, Minn. The branches seemed disturbed and thin near the grasses and at the time I thought with surprise that it looked like the beginning of a bird nest, but then I decided it must have blown there since it was so close to the door. However, May 1, 1975, I discovered an American Robin nesting in that tree and one egg had been laid. Two eggs were in the nest when I visited on May 6 and two young birds were being fed by the parents on May 20. Both young birds were gone May 29 with the nest left intact. They were not seen in the yard so it is a question whether someone took them. This tree is one of two artificial trees in tall urns standing on raised ledges next to the front door. The total height of tree and urn is about six feet but the nest is at about three and one-half feet — below eye level. The bird removed a circle of branches around the tree to a depth of four inches above the nest. The front door of this home is used each day by the paperboy — morning and evening — and for occasional deliveries and guests. Regular family traffic goes through a different entrance, however. For town house

and apartment people with small patios and balconies perhaps there is hope that some day they, too, may have nesting birds in their "yards." **Karol Gresser, 8850 Goodrich Ave., Apt. 303, Bloomington, Minnesota 55437.**



CLAY-COLORED SPARROWS IN PIPESTONE CO. — *Minnesota Birds* by Green and Janssen states that in summer there are "no recent observations south of Dakota and Lyon counties" of the Clay-colored Sparrow. However, in the summers of 1974 and 1975 I heard and/or saw Clay-colored on virtually every visit to Pipestone National Monument. There were probably five or six singing males here continuously through the summer which were probably on breeding territory, though I never looked for nesting evidence or saw young birds. The sparrows were usually seen along brushy edges of the tree-lined Sioux quartzite cliffs and ledges in the Monument. I do not recall seeing Clay-colored Sparrows in mid-summer anywhere else in the southwest corner of the state, but I've never really looked for them here, and they may nest sparingly in other areas south of Lyon Co. — **Kim Eckert, Box 47, Garretson, South Dakota 57030.**

CLAY-COLORED SPARROWS IN OLMSTED COUNTY — On June 28, 1975, Rose Pendle, Carol Welch and I went down to Rock Dell Township Section #22, to observe a sparrow I had heard singing there two days earlier. It had a buzzy song, like a door bell, an even series of buzzes "Buzz, buzz" . . . pause . . . "Buzz, buzz" . . . pause, etc. repeated eight times a minute. I had heard it once before when listening to a Federation of Ontario Naturalists' recording of Finches to learn sparrow songs. My ear told me it was a Clay-colored Sparrow and a good sight observation was needed. Both Carol and Rose had seen Clay-colored Sparrows before but it was a new bird for me. Section #22 includes a DNR Wildlife area, a slightly rolling meadow overgrown with abundant low scrub. A small creek runs through the area. There are a few large trees along the creek at the north end, and a small evergreen plantation on the west side about the middle of the area. The weather was clear that day, wind was light. When we arrived the two-buzz sparrow was singing from the tip, or a perch near the tip, of various evergreens (spruce and pine 3' to 10' tall in the plantation). From 8-11:30 a.m. we stayed and watched the bird at various distances as he moved around from perch to perch — from 100 feet with binoculars (7x35, 8x40) to 10 feet by eye. A description made then: "Clear pale pearly gray breast, throat — pearly gray, dark crown with light streak down the middle, brownish ear patch with sharp line above and below outlining it; pale bill with a tiny black tip. Long forked tail. Back has strong dark streaks. No distinct wingbars. No eye ring." We had both Peterson's guide and Robbins' along to consult. In an hour, the bird flew to the ground several times in one large area. We searched this area for a nest, but couldn't find it. Before leaving Section #22 we moved around and established that a second Clay-colored Sparrow, a five-buzz sparrow, was singing just south of the first one, and a third was singing on the other side of the road where the brushy area extends. On returning July 3rd I heard and saw two sparrows — #2 and #3. On July 12th two of us returned and heard two — possibly three Clay-colored Sparrows. On the afternoon of July 11th, the same three observers, were birding in the country northeast of Rochester (Haverhill Township, Section #16). Near a creek, in a hillside meadow having lots of brush and a few scattered small (4'-6' high) evergreens we heard the unmistakable door bell song again. At this point we felt like experts on that song. We listened for a half hour and maneuvered for a look at the singer but were frustrated by the strong wind. No one had a satisfactory sighting. However, all three of us were convinced that this was another Clay-colored Sparrow — 18 miles from the other sighting. **Joan Fowler, 713 13th Avenue S.W., Rochester, Minnesota 55901.**

PRAIRIE CHICKEN KILLED BY GOSHAWK — Shortly after dawn on 25 March, 1975 a Goshawk attacked and killed an adult male Greater Prairie Chicken while it was booming on a display ground located south of the Pankratze Prairie in Polk County. Although I did not observe the initial contact, it appeared that the hawk flew in from the east and took the chickens by surprise. The other seven males and one female remained on the display ground for several seconds before flushing. The struggle ended approximately 30 seconds after initiation. I retrieved the chicken after a few minutes and found its neck broken and its throat and breast torn open. As I approached I did not see the Goshawk flush for the sun was in my eyes. The bright sun may also have concealed the hawk from the prairie chickens. Autopsy revealed that the prairie chicken was in excellent physical condition with no sign of internal parasites and only a few feather lice. It had substantial subdermal and intraperitoneal fat reserves and weighed 1050 g.,

even though some breast muscle tissue had been removed by the Goshawk. The other prairie chickens returned to the display ground within two hours after the attack and did not appear to be disturbed by the kill. **Donald W. Sparling, Jr., Department of Biology, University of North Dakota, Grand Forks, North Dakota 58201.**

RED-BELLIED WOODPECKER IN MARSHALL COUNTY — I received a call from Laurel Johnson, who lives next to the Snake River in Warren, on December 12, 1974. He stated that an unusual woodpecker was feeding on suet from one of his food stations. I drove over to view this bird first hand. The bird was about the size of a Hairy Woodpecker and had heavy horizontal barring on its back. It had a gray breast and the top of the head was gray. The nape showed a tinge of red according to Laurel but because of the poor light when I viewed the bird, I did not notice it. When the bird flew it showed a white rump and wing patches. We had available a copy of *North American Birds* by Chandler Robbins and decided that it must have been a female Red-bellied Woodpecker. Mr. Johnson noted the bird at his feeder for several days and then it disappeared. Late in the afternoon on Christmas Bird Count day, Dec. 22, 1974, the bird reappeared at my suet feeder in the back yard. My wife brought the Peterson field guide to the window and together we viewed and studied the bird. I observed the bird almost every other day with binoculars until January 12, 1975. A terrific blizzard hit that day and the bird was never seen again. It was a very bleak winter after the storm because a Blue Jay and a few chickadees were the only birds that I and Laurel recorded the rest of the winter. **Gladwin Lynne, 523 No. Montana Street, Warren, Minnesota 56734.**

Editors Note: The above record is most unusual and represents one of the few records for the Red-bellied Woodpecker in northwestern Minnesota. I would guess that the bird was an immature female because of the small amount of red noted on the nape.

RUSTY BLACKBIRD OBSERVATIONS NEAR BABBITT — On May 28, 1975 while conducting biological field studies for AMAX Exploration, Inc., on its copper-nickel exploration site, a flock of nine Rusty Blackbirds were observed on a recent clear-cut. The 27 acre clear-cut, located six miles southwest of Babbitt, St. Louis Co. was logged in early 1974. The herbaceous and shrub layers consist primarily of remnants from a mature jackpine stand — alder, dogwood, raspberry, aster, clintonia, and vacciniums. The cut is bordered by open woodland swamps and black spruce bogs. Identification was made by both authors, independently, using 7x50 binoculars. The observation period was about 10 minutes. The birds were quite tame. We were able to approach to within 15 feet to note the lack of iridescence, mottled rust on the wings and back, yellowish eye, and size characteristics. Six days later (June 3), a breeding bird census was conducted on the clear-cut and four Rusty's were observed feeding at the point of the original identification. Again, the birds seemed unafraid. Although potential Rusty Blackbird nesting habitat surrounds the clear-cut, we do not feel that nesting occurred. The tame behavior and the flocking aspect leads to this conclusion, as these birds are single nesters requiring quite large territories per pair. Only two summer observations have been recorded in Minnesota. One was by M. Carr northeast of Grand Marais and more recently by G. Niemi (1975:47-3) at the Prayer Lake burn near Lake Saganaga. **J. W. Todd and P. D. Doran. AMAX Environmental Services Group, 4704 Harlan, Denver, Colorado 80212.**

SWAINSON'S HAWKS NEST AGAIN IN AUSTIN — A pair of Swainson's Hawks nested near Austin again this year, and new observations were made that can be added to the report of studies of two nesting pairs in 1974 (Loon 47:61-66). Unfortunately, the nest on the Peck farm was not used this year, nor were Swainson's Hawks seen near it. The other nest, located in woods near the Weyerhaeuser factory, was also not used, but a pair of hawks apparently built a new one about 150 m from it in the same wooded floodplain habitat. The new nest was about one m in diameter and 12 m above the ground. Although the Weyerhaeuser nest area was frequently visited in April, hawks were not seen until May 1, when two birds were observed flying around the area and calling. This was two weeks later than in 1974. Several visits were made to the area in May and June, but the hawks were not seen again until June 17, when one was observed one km from the nest. On July 20, the new nest was discovered and two adult-sized young were seen in the nest, while two adults circled and called overhead. Four days later, the chicks were "practice flapping" on the nest and climbing on adjacent limbs. One chick hovered over the nest briefly. An adult was calling while perched nearby. Fledging must have occurred within a few days (cf. July 20 of 1974). From August 13 to 25, hawks were seen several times within a km of the nest. On August 26, one was seen over 15 km from the nest, but perhaps it was not of this family, since it was so far away. On September 6, two juveniles were seen near the nest as they circled together and dove at one another as though in play. On September 14 and 20, an adult was seen 2 km from the nest on an habitual perch of last year. The last observation was on September 20 when a juvenile was being harassed by a crow as the hawk flew low over a field. On November 24, the new nest was gone, probably blown down by high winds. The old nest, however, was still in place. In summary, combining the 1974 and 1975 data, the following may be stated: (1) Neither of 1974 nests were used in 1975. (2) Apparently, only one pair of birds nested in Austin in 1975, and they made a new nest near a 1974 nest. We do not know that this was the same pair that had used the 1974 nest. (3) In 1975, arrival at the old nest area was about 2 weeks later than in 1974. (4) For 1975, onset of incubation and hatching dates were not determined, but fledging was within a week of the 1974 date. (5) In 1975, the hawks probably left Austin in late September, as they had in 1974. Green and Jansen, in *Minnesota Birds*, give early October dates for the latest southern Minnesota observations. Should Swainson's Hawks nest in Austin in 1976, we hope further observations of their activities can be made. **Ronald D. Kneeskern, 1208 NW 5th Street, Austin, Minnesota 55912 and Dean G. Schneider, 4722 Cooke Street, Duluth, Minnesota 55804.**

BOOK REVIEWS

The Seabirds of Britain and Ireland by Stanley Cramp, W. R. P. Bourne and David Saunders. Taplinger Publishing Co., New York, 1974. 287 pages, 12 photos, 4 color plates, 32 maps. \$14.95.

An attractive and highly authoritative book, **Seabirds** is a compilation of the work and observations of many British ornithologists with regard to seabird nesting colonies in 1969 and 1970. As the preface and introduction explain, this book is the result of the extremely difficult task of mapping and censusing all known colonies of shearwaters, storm petrels, cormorants, jaegers, gulls, terns and alcids in the British Isles. The authors go on to explain that such a monumental project was well worth the effort, since like almost everything else seabirds are on the decline in numbers.

Chapter one is a readable and not all that technical account of seabird biology, while the second chapter summarizes threats to seabirds in their nesting colonies and on the ocean. Oil spills, pesticide pollution, dumping of foreign wastes, and man's activities near colonies head the list of hazards. Chapter three then gives a brief but complete account of past and present populations of the various species, pointing out those particular species most on the increase or decrease. The next and largest section of the book (about 130 pages) is a detailed account of each of the 24 species of seabirds which regularly breed in the British Isles. Section headings under each species are entitled Identification (many good tips on field identification and comparison with similar species are given here that are not found in the field guides), Food and Feeding Habits, Breeding (data on nest sites, breeding dates, eggs and chicks), Movements (where and when they migrate), World Distribution, Census Methods (insights into just how difficult and sometimes inaccurate a census of often tens of thousands of birds is), and Status in

Britain and Ireland in 1969-70 and Past History (data on past and present numbers). A brief chapter follows with a list of casual or extirpated breeders and irregular vagrants.

A collection of 32 excellently detailed maps follows. The first 3 show the name and location of the major breeding colonies with the number of species and individuals at each site. A map of breeding locations for each of the 24 species is then provided, including an indication of the size of the colonies. It is interesting to note that "for reasons of security" the exact locations of breeding sites for the terns are not mapped. There are also maps on kills resulting from oil spills from 1968-70, banding returns of Razorbills, water temperatures and salinity of the waters around Britain, and plankton distribution. **Seabirds** concludes with 27 tables of facts and figures for those intrigued by statistical analysis, and a list of references no less than 19 pages long.

There can be little doubt that **Seabirds** is about as complete and authoritative as anyone would want. The 12 black and white photos of nesting colonies certainly add to the quality of the text. The four color plates by Robert Gillmore are adequate but not too inspiring (his adult Gannet seems a bit stiff and the immature is out of proportion with the adult). I liked many of the tips on field identification, but \$15 is a bit out of line for most of us. This price is certainly warranted if British seabirds are your thing, but I'm afraid most Minnesotans will pass on this book.

Kim Eckert

The Bird Life of Texas, by Harry C. Oberholser, edited by Edgar B. Kincaid, Jr. University of Texas Press, Austin, 1974. 2 volumes, 1069 pages. 72 paintings by Louis Agassiz Fuertes, 38 photographs, about 500 range maps. \$60.00.

Monumental may be a trite, overworked word to describe gigantic bird books, but I sure can't think of a better way to describe this monograph. Consider these superlatives. Systematic field work in Texas to gather data for this and other manuscripts began in 1901 with Oberholser and others. The author continued work on this project until he died in 1963, gathering together an overwhelming and unpublished three million words for his original manuscript. It was then left to Edgar Kincaid and an army of others to pare all this down to a mere one million words. Ten years later, thanks to some financial gifts, the book finally made it off the presses, but not before Kincaid gathered even more data for a project that already had a lifetime of work behind it. Of the no less than 254 counties in Texas, all but 11 of them were considered to have been under-birded. Therefore an additional 400,000 miles were traveled by Kincaid and others to fill in gaps on the range maps. Oberholser's range descriptions were in words as part of the text, and it was left up to Kincaid to translate these words into range maps for all but a few of the 545 species on the Texas list. And Oberholser had collected so many place names that he had even compiled a 353 page Gazetteer to identify and locate them all. Without this, the range maps would have been almost impossible to construct. So many people helped gather data for these volumes that two solid pages of small print are needed to list all the contributing observers and collectors, and so many printed references were consulted that the bibliography is no less than 31 pages long.

Had enough? But there's more. Oberholser was such a systematic and independent taxonomist that his painstaking descriptions of subspecies take up a huge chunk of the book. Many of these descriptions are fully one to two pages of small print. So painstaking were his descriptions that it was necessary to include a seven page glossary of colors in the back of the book. Also you will find several subspecies "new"

to science — forms only an Oberholser could recognize. How about a new subspecies of House Sparrow, or no less than 20 subspecies for the Common Yellowthroat? To go along with all this it was felt necessary to include 45 pages of small print at the back of the book called a Nomenclature Appendix. Here you will find explanations for deviations that Oberholser made from the standard literature in scientific and subspecific names.

Even the usually mundane parts of a book are fascinating. The foreword, preface, acknowledgements and editor's introduction tell an engrossing story of how all this ever managed to get into print, a feat that many Texans had thought impossible. Before the individual species accounts you will find an interesting History of Texas Ornithology and an excellent account of the Ecology of Texas Birds. After descriptions of Texas' climate, physiography, vegetation and habitat species associations come the most complete and finest collection of habitat photos I have ever seen. No less than 38 photos, most of them a full page 9x12" in size, do an absolutely flawless job of showing you what Texas is all about: southern pine and deciduous forests, coastal dunes, marsh and prairie, brush country of oaks and junipers, remnant stands of ebony trees, palms and Mexican baldcypress, Big Bend's canyons and forests, prairie groves and grasslands — even a sterile cultivated cotton field, a city park, Brownsville's famous dump and a sewage pond are included to graphically illustrate what Texas birding is all about.

There is really only one thing that I would criticize about the book. The range maps, over 500 of them, are often too crowded and too cluttered. The maps themselves are large enough, they have to be to accommodate 254 counties, but when you look under one of the more common species like Mourning Dove so many symbols are crammed into so many counties that it becomes a meaningless blur. Five different symbols are used to indicate a bird's status in each county: breeding,

spring, summer, fall and winter. Though no more than two of these are ever put in a county at one time, too many of the maps are simply too crowded. Admittedly, this is a more accurate and realistic system than simply shading in the ranges, but the maps would have been easier to read if only breeding and perhaps wintering county records were included. At least the editor could have made his symbol for breeding records a more obvious one to stand out among the other symbols. Breeding range should be the most important for a species, but his star symbol is the smallest of the five, while specimen records stand out more than anything else.

Perhaps the best thing about **The Bird Life of Texas** is that even brand new it looks already like a fifty year old classic. The 9x12" dimensions, the classic Fuertes paintings, the drab green cover, the off-white pages, the simple type styles — all contribute to the feeling that you're looking at a priceless relic of the way books used to be. Even the \$60 price tag makes you feel that you're buying a valuable antique. The high price is prohibitive but not out of line, and while I can't say this is a must addition to your library, it is a must to borrow one for a few hours and page through a classic.

Kim Eckert

The Sportman's Eye by James Gregg. Winchester Press, 460 Park Avenue, New York, New York 10022. 1971 — \$6.95.

For some of us birding is a sport rather than a science so many of the chapters which at first glance might seem inappropriate really do have significance for birders. My own experience is that many times I am with birders who find everything for me and while on other occasions with other birders I may do most of the finding. Dr. Gregg explains the reasons why some people can find more wildlife than others and it has to do with training the eyes. Dr. Gregg is an optometrist and it is his business to know

what makes people see better. I found most of the chapters very interesting and I learned a lot about my own eye problems. Did you know, for example, that everyone in the outdoors should wear glasses whether they need prescription or not? Parts 1 and 2 of the book concern themselves with our vision and aids to better vision, and surprising as it may seem, even frames are important to eye glass wearers who wish to see better outdoors.

Chapter 10 on optical aids is the chapter that most birders would turn to first since it discusses binoculars as well as target scopes and the like. Perhaps you are having trouble seeing through your binoculars. If so, you may be having eyepoint problems (especially if you wear glasses).

Part 3 of the book covers vision in sports and the chapter that comes closest to birding is Vision for Hunting and Marksmanship, but Dr. Gregg also talks about glasses for fishing, boating, water sports, skin diving, driving and flying (and even photography). Any of us who in addition to being birders have an interest in these other areas will find this book of great interest. As a result of reading this book I am having a pair of eye glasses made strictly for birding. (Golfers have had special eye glasses for years). The book is very concise and to the point and written in layman's language for easy reading. I highly recommend it to anyone who feels that he is not seeing all that he should when outdoors.

Bill Pieper

Spirit of Survival, A Natural and Personal History of Terns by John Hay, black and white photos, 175 pp. E. P. Dutton and Co., Inc., 201 Park Avenue S., New York, N.Y. 10003 — 1974. \$7.95.

What I thought was going to be an evening or two of pleasant easy reading in which I could learn something about terns, turned into two weeks of struggle to get through this book.

I found the attempt to combine Hay's personal philosophy with a lit-

tle of the natural history of terns did not work. The attempt made the book choppy and difficult to understand, plus leading to much anthropomorphism. A couple of examples are sufficient "One lady observer told me that Roseate Terns are very shy about making love in the rain." "For both of us, the game of life has its foundation in childhood, although an adult tern is closer to childhood, in time at least, than a grown man." I continually found myself putting(?) in the margin of the book, writing such words as "why" "choppy", "mixed up", "not much to do with terns", "tern stuff weaved in", "when he brings himself in it gets complicated", "good chapter but mixed up." I guess that is enough to express my negative feelings other than to say I wish there had been more on the terns themselves.

On the positive side, the chapter on Vulnerability was excellent and the last Chapter on "Rare as a Tern" was a good summary of the trouble that tern populations are facing.

In fairness to the author and the book I found a number of in depth statements that really hit home, I will give one example, "What we call use of the environment lacks a knowledge of its subject which is inherent in a tern. Our relation to territory is strictly on a cash, and therefore wholly abstract basis. We neutralize it; we eradicate its distinctions. No tern could do that and survive. What life can the earth have if it is treated like used merchandise?"

These sentences are found on the second to the last page. After my struggle with the previous 173 pages I found myself feeling much better about reading the book after these lines. Go out and get yourself a copy of this book and see what you think.

Bob Janssen

America's Best Loved Animals by Madeline Angell. Illustrations by Larry Veeder. Bobbs-Merrill Co. Inc., New York, 1975, 152pp. \$6.95.

Madeline Angell used over 60 sources to gather the information on 30 favorite American mammals. The bibliography looks like an interesting reading list in itself, but this book is a digest of basic facts of a particular species' life. So often subjects of this type are handled in a field-guide style listing appearance, size, foods, habitat, and range. Not so in this book — those facts are found in the glossary along with terminology definitions.

Using the question-answer style, the author has deleted unnecessary connecting sentences between areas enabling the reader to gain more information in less reading time. The questions are not uniform for each animal. Other than the most frequently asked question, "What does a eat?" The author knows the right questions to ask and they are informative in themselves besides aiding the reader in selection of interesting areas. I wouldn't have known enough to ask why the beaver's loss of a tooth was serious, or questioned the use of a gopher's tail. (If a rodent loses an incisor, the other one continues to grow and is not ground down causing starvation or a punctured brain. The pocket gopher's hairless tail serves as an organ of feeling when backing within the tunnel). The answers are in pyramid form whereby the question was answered simply and then elaborated with additional ideas or anecdotes of the author's experiences with the animals. Some of the field-guide items are included incidentally, but the emphasis on everyday existence, family life, underground arrangements and activities made me resort to the fad statement, "I didn't know that!"

After I enjoyed the ease in which I had quickly acquired so much new knowledge, I read the book jacket, normally read first, and much to my chagrin found the book aimed at "any young person interested in animal life or nature studies." Therefore, I put it to the supreme test by trying it on "young persons." The mid-teenagers flipped through selecting the questions

that interested them and then getting involved. The vocabulary was difficult reading for a mid-elementary age, but could be understood when someone read it out loud. With young children the answer's pyramid structure allows enough to satisfy their curiosity without losing their interest.

Madeline Angell is from Red Wing and that city can also boast a nature artist, Larry Veeder. His illustrations avoid the cute-cuddly animal syndrome inherent in books for young persons; therefore the older "young person" is not turned-off and the young child does not see cartoon characters complete with emotions and personality traits, but rather an accurate physical portrait.

Marlyn Mauritz

Confessions of a Bird Watcher by Roger Barton. McGraw-Hill Book Co., 1974, 236pp. \$7.95.

Roger Barton is a life-long birder with over 500 species of birds observed north of Mexico. He has four other books to his credit, all dealing with advertising, designed to be read by advertisers. His first book on his avocation seems to be the publication of brief articles that comprised his weekly newspaper column, and as such were limited to 200-700 words. This limitation created vignettes in the chapters dealing with "Bugs and Beasts" and "Plants and Petals" where he zoomed in on one small fact or specimen and then developed it through the use of incidents or a discussion of the environmental problems involved.

The chapter on "Environmental Protection" has a series of essays devoted to Roger Barton's belief that the "logical conclusion of the activity of an amateur birder is to protect the environment in which birds can thrive." In his own case in New Jersey, this meant becoming a member of a commission which aided all levels of government in planning, implementing, and informing the public about local conservation programs. This was not a

group set only on **preserving** things; instead they worked on inventories of open areas, studied land use, instigated programs regarding water levels and qualities, and flood plain controls.

The first half of the book dealt with birds; with chapters on the three flyways and his world travels. In this section the word limitations and lack of particulars were a frustration. If a reader expects a "confession" to mean a telling of facts, data, and details, forget it. Check another dictionary meaning of the word — it can be an "avowal" or an "acknowledgement" and this holds true. The author is an avid birder going here and there to seek certain species and once sighted, he seldom stops to be a "watcher." The book would more aptly be titled **Jottings of a Spotter**. It is written in a dairy style without benefit of dates and location; the brevity of the entry decoded only by those who have been there, have an atlas handy, or a field guide for ready reference. Many of the short selections ended with "also saw" followed by the grammatical form known as a series interspersed with commas. In the three pages relating a trip to Minnesota (not all states are included) 11 species of birds were mentioned as well as a remark or two on prairies and glaciation.

Marlyn Mauritz

The View from Hawk Mountain by Michael Harwood, Illustrations by Fred Wetzel. Charles Scribner's Sons, New York, 1973, 191pp. \$6.95.

Michael Harwood dedicates **The View From Hawk Mountain** "to all the partakers of the view." The place is Hawk Mountain in eastern Pennsylvania where annually the great raptor migration flows southeast on the thermals caused by the Kittatinny Ridge, essentially the southeast edge of the Appalachian chain. The Indians gave the ridge its name — translated "endless mountain." Throughout the book, one finds the hope that the mountain will remain "endless"; and that the raptors can also.

The locale is easily described, to define the "view" in the book is more nebulous due to the author's ability to interweave his purposes in such a skillful way that it almost takes a literary dissection to sort out the times and places, to say nothing of the conservation topics covered.

The obvious "view" is that of the hawk watcher enthroned on a rock waiting for the 2 o'clock eagle, but willingly accepting any species. Ten winged predators are covered, (not always in the chapter headed by the beautiful line drawings), giving their life histories, behavior, studies undertaken, and special problems. The other major "view" is that of the history of the area and the struggle to acquire, protect, and use the sanctuary.

Through the vehicle of these two views, Michael Harwood is able to "view" a myriad of the problems confronting raptors and the pitfalls of a hawk migration spot. Most birders readily deplore the slaughter of hawks by gunners at various points on migration routes; but Harwood tweaks the conscience of birders who have in the past and still do moralize against hawks in general and specifically against the ones that prey on birds. Birders wanted birds, hunters wanted ducks, farmers wanted loose livestock, and some people simply opposed predators — all combined to keep raptors off protection lists or singled out cer-

tain species which allowed enough loop holes in the law to continue the slaughter through "mistaken identities."

As better techniques and more volunteers at more locations produced higher tallies, the reports were used in rebuttal by anti-conservationists who claimed there was no need to scream about pesticides and encroachment by developers since every year produced higher counts. Anyone not familiar with weather conditions and species patterns could be impressed by total figures of birds seen.

The place became an attraction for casual visitors and groups causing a demand for the development of the area around to cater to the demands for better roads and facilities. Remember the TV features a few years ago showing the crowds? At that time the regulars find the remote spots for peace and watching until the noisy ogles depart.

The book is a view of what was, is, and can be. It shows what the efforts of volunteers and educating the public can produce to benefit man, an area, and animals. If you have never been to Hawk Mountain, this enjoyable and well written book will take you there — if you have been to Minnesota's Hawk Ridge Nature Reserve, you will enjoy this book, but may quiver with fear at the parallels possible.

Marlyn Mauritz

CORRECTION

In "THE LOON" Vol. 47 No. 3, page 126, under Ruby-Crowned Kinglet, the dates for Olmsted Co. should read 2-2 and 2-15, not 12-28 to 2-15 as published.

INDEX TO VOLUME 47

- Accipiter, 116, 130
Albatross, Black-footed, 103
Alcids, 194
Avocet, American, 83, 160, 167
Bittern,
 American, 26, 79, 114, 116, 157, 161, 182
 Least, 26, 79, 161, 182
Blackbird, 92
 Brewer's, 35, 89, 119, 127, 145, 158, 174, 183
 Red-winged, 35, 88, 119, 127, 144, 158, 174, 183
 Rusty, 88, 119, 127, 144-145, 174, 192
 Yellow-headed, 35, 50, 88, 114, 119, 157, 174
Blanch, Jo., summer record of Great Gray Owls in
 Aitkin County, 188-189
Bluebird, 131
 Eastern, 33, 86, 114, 118, 126, 143-144, 158, 171
 Mountain, 13, 49, 131-132, 136, 160, 171
Bobolink, 20, 35, 88, 158, 174
Bobwhite, 28, 81, 114, 120, 124, 164
Braaten, Daniel J., observations at three Brown Creeper
 nests in Itasca State Park in 1973, 110-113
Brant, 140-141
Bufflehead, 27, 80, 114, 122, 157, 163, 182
Bunting,
 Indigo, 20, 36, 89, 158, 174
 Lark, 160, 175
 Snow, 90, 119, 128, 176, 183
Buteo, 116, 130
Campbell, Doug and Betty, Summer Tanager in Roberts
 Sanctuary, 137-138
Campbell, Elizabeth, three-toed woodpecker sightings,
 92-93; Rose-breasted Grosbeak in winter, 97
Canvasback, 27, 80, 114, 122, 163
Cardinal, 36, 89, 119, 127, 137, 138, 157, 174
Carr, Marjorie M., Yellow-breasted Chat at Duluth, 92;
 Loggerhead Shrike in winter, 96
Catbird, Gray, 19, 33, 86, 138, 158, 170, 183
Chat, Yellow-breasted, 25, 35 50-51, 92
Chickadee, 95, 96, 112, 120, 159, 192
 Black-capped, 32, 44, 95-96, 97, 112, 118, 126, 158,
 170, 183
 Boreal, 32, 85-86, 98, 118, 126, 170
Christenson, Glenn and Mark R. Fuller, food habits of
 two Long-eared Owl families in east-central Minne-
 sota 58-61
Christman, R. J., an unusual summer visitor, 50-51
Chukar, 29, 81, 120, 124
Condor, California, 103
Coot, American, 18, 19, 20, 29, 82, 101, 117, 124, 157,
 159, 165, 182
Cormorant, 194
 Double-crested, 26, 79, 157, 161
 Pelagic, 103
Cowbird, Brown-headed, 35, 38, 89, 119, 127, 158,
 174, 183
Coyle, Miss Mable, an early Wood Thrush record, 141
Crane, Sandhill, 29, 82, 165
Creeper, Brown, 19, 33, 86, 96, 108-109, 110-113, 118,
 119, 126, 157, 170, 183
Crossbill,
 Red, 36, 89, 119, 128, 140, 175, 183
 White-winged, 36, 44, 89, 119, 128, 139-140
Crow, Common, 18, 32, 118, 126, 158, 170, 173, 193
Cuckoo, 159
 Black-billed, 19, 30, 46-47, 84, 158, 168, 182
 Yellow-billed, 19, 30, 84, 168
Davis, Avis J., a White-faced Ibis in Lincoln County, 131
Dempsey, Mrs. Joanne, Brant at Grand Marais, 140-141
Denis, Keith, Barrow's Goldeneye, Cook County, 99
Dickcissel, 20, 36, 89, 174
Doran, P. D. and J. W. Todd, Golden-winged Warblers
 near Babbitt, Minnesota, 144; Rusty Blackbird obser-
 vations near Babbitt, 192
Dove, 159
 Mourning, 30, 84, 117, 124, 138-139, 158, 167, 186, 195
 Ringed Turtle, 124
 Rock, 114, 117, 124, 158
Dowitcher, 83, 166
 Long-billed, 83, 166
 Short-billed, 83, 166
Duck, 11, 12, 51, 93, 99, 140, 156, 159
 Black, 27, 43, 51, 79, 116, 122, 140, 157, 162, 182
 Comb, 51
 Harlequin, 11, 12, 50, 120, 123
 Ring-necked, 27, 80, 101, 116, 122, 157, 162, 182
 Ruddy, 27, 80, 93, 114, 160, 163
 Torrent, 51
 Wood, 27, 80, 116, 122, 137, 157, 162, 182
Dunlin, 37, 83, 158, 166
Dunstan, Thomas C., John E. Mathisen and James F.
 Harper, the biology of Bald Eagles in Minnesota, 5-10
Eagle,
 Bald, 5-10, 28, 81, 117, 123, 164, 182
 Golden, 81, 117, 123, 164
Eckert, Kim, possible Say's Phoebe nesting at Blue
 Mounts State Park, 13-15; the summer season (June
 1-July 31, 1974) 25-38; hypothetical Brewer's Sparrow
 sighting, 40-41; possible Blue Grosbeak nesting at Blue
 Mounts State Park, 47-48; possible American Woodcock
 nesting in southwest Minnesota, 48; fall Bell's Vireo,
 93; Rock Wren seen at Pipestone, 94; clarification of
 an Iceland Gull record, 101; the winter season-Dec. 1,
 1974-Feb. 28, 1975, 120-128; Least Tern observation in
 Nobles County, 133; early date for Nashville Warbler,
 136; Cardinal observations in Rock County, 138; Black-
 headed Grosbeak seen in Rock County, 139; summer
 sightings of White-winged Crossbill and Bonaparte's
 Gull in southern Minnesota, 139-140; Sabine's Gull at
 Duluth, 186; Clay-colored Sparrows in Pipestone Co.,
 190
Egeland, Paul, the fall season - Aug. 1 to Nov. 30,
 1974, 78-91; Surf Scoters at Marshall Sewage Lagoons,
 93; first winter record for the Pectoral Sandpiper, 97;
 Prairie Falcon in Yellow Medicine County, 98-99
Egret, 93, 94
 Cattle, 25, 26, 50, 79, 93-94, 134, 160, 161
 Great, 26, 79, 161
 Snowy, 134, 161
Eider, 11
 Common, 11
 King, 11, 12, 49, 50, 120, 123
Evans, David L., a Gyrfalcon at Hawk Ridge, 45-46; fall
 owl migration at Duluth, Minnesota, 56-58
Faanes, Craig, Barrow's Goldeneye near Duluth, 100;
 Mourning Dove hatches Robin eggs, 138-139
Falcon, 130
 Peregrine, front cover No. 1, 43, 78, 81, 99, 130, 164
 Prairie, 13, 78, 81, 98-99, 120, 123, 136, 160, 164
Finch, 121, 140, 159
 Purple, 36, 47, 89, 119, 127, 140, 159, 174
Flamingo, American, 43-44, 79
Flicker,
 Common, 17, 19, 31, 84, 114, 117, 125, 158, 168,
 182
 Red-shafted, 114
Flycatcher, 159, 169
 Acadian, 25, 31, 49, 50
 Alder, 31, 85, 158, 169
 Great Crested, 19, 31, 85, 158, 169, 182
 Least, 19, 32, 85, 158, 169, 183
 Olive-sided, 32, 85, 157, 169, 183
 Scissor-tailed, 25, 31, 49
 Trail's, 19, 182
 Willow, 31, 49, 85, 169
 Yellow-bellied, 19, 31, 48-49, 85, 157, 169
Fowler, Joan, Clay-colored Sparrows in Olmsted County,
 191
Fuller, Mark R. and Glenn Christenson, food habits of
 two Long-eared Owl families in east-central Minne-
 sota, 58-61

- Gadwall, 27, 79, 116, 122, 157, 162
 Gallinule, Common, 29, 82, 165
 Gannet, 194
 Glassel, Raymond, winter record for Loggerhead Shrike in Carver County, 95; Barrow's Goldeneye record for western Minnesota 141; Hooded Warbler in LeSueur County, 141-142
 Gnatcatcher, Blue-gray, 33, 171
 Godwit,
 Hudsonian, 78, 83, 167
 Marbled, 29, 166
 Goldeneye, 11, 99, 141
 Barrow's, 11, 12, 50, 99, 100, 114, 116, 120, 122, 141
 Common, 9, 11, 12, 27, 80, 99, 100, 116, 122, 141, 163, 182
 Goldfinch, American, 36, 89, 119, 120, 127-128, 159, 175, 183
 Goose, 51, 141
 Blue, 79
 Canada, 27, 79, 100, 101, 116, 122, 131, 162
 Magpie, 51
 Snow, 27, 79, 114, 116, 122, 140, 146, 162
 Ross', 114, 116
 White-fronted, 79, 122, 162
 Goshawk, 28, 45, 80, 116, 123, 163, 182, 191-192
 Grackle, Common, 35, 89, 119, 127, 138, 139, 145, 158, 174, 183
 Grebe, 50, 137, 159
 Eared, 26, 78, 161
 Horned, 26, 78, 121, 157, 161
 Pied-billed, 18, 19, 20, 26, 78-79, 116, 121, 157, 161, 182
 Red-necked, 26, 50, 78, 120, 121, 136-137, 146, 160, 161
 Western, 26, 78, 114, 116, 160, 161
 Green, Janet C., rare sea ducks at Grand Marais, 11-12; Mute Swans in western Lake Superior, 42-43; first winter record of Black-and-white Warbler from Duluth and Minnesota, 96-97
 Gresser, Karol, a Mute Swan observation, 41-42; White-faced Ibis in Wabasha County, 131; a Hooded Warbler in Minneapolis, 135; Worm-eating Warbler at Roberts Sanctuary, 135; Robin nests in artificial tree, 189-190
 Grosbeak, 47
 Black-headed, 139
 Blue, 13, 36, 47-48, 89, 139, 160, 174
 Evening, 36, 44, 89, 97, 119, 121, 127, 159, 174, 183
 Pine, 89, 98, 119, 127, 175, 183
 Rose breasted, 20, 22, 36, 89, 97, 127, 158, 174, 183
 Grouse,
 Ruffed, 28, 81, 117, 123, 143, 157, 164, 182
 Sharp-tailed, 28, 81, 117, 124, 164
 Spruce, 28, 81, 121, 164
 Gull, 11, 70, 71, 73, 94, 99, 100, 101, 131, 133, 134, 140, 142, 156, 159, 160, 185, 186, 187, 194
 Bonaparte's, 29-30, 83, 139-140, 142, 158, 167, 187
 California, 130-131, 160, 167
 Franklin's, 29, 50, 83, 140, 167, 185, 187
 Glaucous, 11, 83, 94, 99, 100, 117, 124, 133, 167
 Herring, 11, 29, 70, 71, 83, 94, 99, 100, 117, 124, 130, 133, 134, 142, 158, 167, 185, 187
 Iceland, 11, 78, 83, 99-100, 101, 121, 124, 134
 Laughing, 185-186
 Little, 25, 30, 133, 142-143, 160, 167
 Ring-billed, 25, 29, 70, 71, 72, 73, 74, 83, 94, 117, 124, 130, 142, 158, 167, 185, 186, 187
 Sabine's, 186-187
 Thayer's, 11, 49, 78, 83, 94-95, 100, 101, 121, 133-134, 160, 167
 Gyrfalcon, 45-46, 78, 81, 113, 114, 117, 121
 Harper, James F., John E. Mathisen and Thomas C. Dunstan, the biology of Bald Eagles in Minnesota, 5-10
 Harris, James T. and Sumner W. Matteson, gulls and terns nesting at Duluth, 70-77
 Hawk, 18, 43, 56, 57, 62, 64, 65, 96, 130, 156, 159, 160, 193
 Broad-winged, 28, 81, 157, 164, 182
 Cooper's, 28, 80-81, 116, 123, 163, 182
 Ferruginous, 160, 164
 Marsh, 28, 43, 81, 117, 123, 157, 164, 182
 Red-shouldered, 28, 81, 116, 123, 160, 163
 Red-tailed, 13, 28, 63, 64, 65, 81, 116, 123, 157, 163, 182
 Rough-legged, 65, 81, 116, 123, 164, 182
 Sharp-shinned, 28, 63, 80, 116, 123, 157, 163, 182
 Swainson's, 28, 61-66, 81, 130, 164, 193
 Heidel, Kathryn, one-footed chickadee survives two Minnesota winters, 95-96
 Heron, 66, 67, 69, 159
 Black-crowned Night, 26, 79, 161
 Great Blue, 26, 42, 50, 66-69, 79, 114, 121, 153-155, 157, 161, 182
 Green, 26, 79, 157, 161, 182
 Little Blue, 25, 26, 50, 134, 160, 161
 Yellow-crowned Night, 25, 26, 79, 160, 161
 Hiemenz, Nestor M., third record for the Band-tailed Pigeon in Minnesota, 186
 Horn, Charles L. Jr., capturing an Ovenbird, 135-136; Eastern Bluebird uses Cliff Swallow nest, 143-144.
 Huber, Ronald L., comments on the November "Yellow-bellied Flycatcher," 48-49
 Hummingbird,
 Ruby-throated, 31, 84, 158, 168, 182
 Rufous, 78, 84
 Ibis, 131
 Glossy, 131
 White-faced, 131, 160, 162
 Jaeger, 185, 186, 187, 194
 Parasitic, 187-188
 Janssen, Robert B., a late Cape May Warbler in Lake County, 44; a late Barn Swallow, 46; second high year list total for Minnesota, 49-50; probable Thayer's Gull at Black Dog, 94-95; an Iceland Gull at Stoney Point, 99-100; Minnesota's second Mississippi Kite, 130; Minnesota's first California Gull, 130-131; Cinnamon Teal in Blue Earth County, 134-135; Little Gulls seen again at Duluth, 142-143; Laughing Gull at Stoney Point, 185-186; a Parasitic Jaeger at Freeborn Lake, 187-188
 Jay, 159
 Blue, 19, 32, 44, 112, 118, 126, 158, 170, 183, 192
 Gray, 32, 85, 118, 125, 157, 170, 183
 Jepson, Jeff, a Boreal Owl along the Gunflint, 98
 Johnson, Oscar, Minnesota's first recorded Lewis' Woodpecker, 39-40; Least Tern at Marshall, Lyon County, 132-133.
 Junco,
 Dark-eyed, 36, 89, 97, 119, 128, 159, 175, 183
 Oregon, 114
 Kestrel, American, 28, 43, 63, 64, 81, 117, 123, 157, 164, 182
 Killdeer, 29, 82, 117, 124, 132, 157, 165, 182
 Kingbird,
 Eastern, 31, 85, 158, 169, 182
 Western, 31, 85, 169
 Kingfisher,
 Belted, 31, 84, 117, 125, 158, 168, 182
 Green, 103
 Kinglet, 40, 41, 112, 140
 Golden-crowned, 19, 33, 86, 93, 118, 126, 140, 157, 158, 171, 183
 Ruby-crowned, 19, 33, 40, 86, 121, 126, 140, 158, 171, 183, 199
 Kirby, Ronald E., wildlife utilization of beaver flowages on the Chippewa National Forest, north central Minnesota, 180-185
 Kite, Mississippi, 130, 160, 163
 Kittiwake, Black-legged, 187
 Kneeskern, Ronald D. and Dean G. Schneider, nesting of Swainson's Hawks in southeastern Minnesota, 61-66; Swainson's Hawks nest again in Austin, 193
 Knot, Red, 142, 156, 158, 166
 Koopman, L. J., woodcock nesting in Becker County, 101
 Kramer, David C., a late nesting record of the Black-billed Cuckoo, 46-47
 Kyllingstad, Henry, a Least Tern at Marshall, 92; a Ruff at Marshall Sewage Lagoons, 136
 Lark, Horned, 32, 85, 114, 118, 125, 129, 156, 158, 159, 169
 Larson, Goodman and Marge, a Mountain Bluebird in Lac Qui Parle County, 131-132
 Lender, Violet, a winter Ovenbird, 97-98
 Longspur,
 Chestnut-collared, 26, 37, 90, 160, 176

- Lapland, 90, 119, 128, 176
Smith's, 78, 90, 160, 176
- Loon, 159, 177
Arctic, 78, 103
Common, 26, 78, 100-101, 120, 121, 157, 161
Red-throated, 160, 161
- Lynne, Gladwin, Red-bellied Woodpecker in Marshall County, 192
- Magpie, Black-billed, 25, 32, 85, 118, 126, 170
- Mallard, 12, 27, 43, 51, 79, 100, 101, 116, 122, 131, 140, 157, 162, 182
- Martin, Purple, 32, 85, 158, 169, 183
- Mathisen, John E., Thomas C. Dunstan and James F. Harper, the biology of Bald Eagles in Minnesota, 5-10
- Matteson, Sumner W. and James T. Harris, gulls and terns nesting at Duluth, 70-77
- Mauritz, Jack, the president writes, 3, 55, 107, 152
- Meadowlark, 114, 119, 127
Eastern, 35, 88, 158, 174
Western, 24, 35, 88, 114, 158, 174
- Merganser,
Common, 9, 11, 27-28, 80, 99, 116, 123, 157, 163
Hooded, 27, 80, 116, 123, 157, 163, 182
Red-breasted, 28, 80, 116, 123, 157, 163
- Merlin, 28, 43, 81, 114, 117, 123, 130, 164
- Millard, Steven P., loon winters at Fergus Falls, 100-101
- Mockingbird, 33, 86, 114, 118, 160, 170
- Murrelet, Marbled, 103
- Neil, Chuck, a Hooded Warbler at Itasca Park, 143
- Niemi, Gerald J., second summer observation of a Rusty Blackbird, 144-145; May big day in southern St. Louis County, 156-159
- Nighthawk, Common, 30, 84, 158, 168, 182
- Nuthatch, 112, 120, 159
Red-breasted, 19, 32, 44, 86, 118, 126, 157, 158, 170, 183
White-breasted, 32, 44, 96, 112, 118, 126, 157, 170, 183
- Oldsquaw, 11, 80, 116, 123, 163
- Olson, Manley, the 1973 Christmas count, 114-119
- Oriole, 22, 24
Baltimore, 22, 24
Northern, 20, 35, 88, 127, 158, 174, 183
Orchard, 22, 35, 47, 48, 88, 139, 174
Scott's, 22-24, 49
- Osprey, 5, 8, 28, 81, 157, 164, 182
- Otnes, Gary L., a Sage Thrasher specimen, 129; nesting Red-necked Grebes, Wall Lake, Otter Tail County, 136-137
- Ovenbird, 20, 34, 78, 88, 97-98, 121, 127, 135-136, 158, 173, 183
- Owl, 50, 57, 58, 59, 60, 96, 98, 102, 103, 117, 159, 188
Barn, 103
Barred, 30, 84, 117, 125, 158, 168, 182
Boreal, 98, 102, 103, 121, 125
Burrowing, 25, 30, 160, 168
Great Gray, 25, 30, 84, 102, 103, 114, 117, 125, 188-189
Great Horned, 30, 84, 103, 117, 125, 158, 168, 182
Hawk, 84, 98, 114, 117, 125
Long-eared, front cover No. 2, 57, 58-61, 84, 117, 125, 168
Saw-whet, 30, 56, 57, 78, 84, 98, 102, 103, 125, 156, 158, 168
Screech, 30, 84, 103, 110, 112, 117, 124-125, 137, 168, 182
Short-eared, 30, 57, 84, 117, 121, 146, 168
Snowy, 84, 102, 117, 125, 168
- Parakeet
Black-hooded, 49
Carolina, 145, 146
- Parmelee, David F., Minnesota nest records of the Brown Creeper, 108-109
- Partch, Max, the 1973 Great Blue Heron migration in Minnesota, 66-69
- Partridge, Gray, 29, 82, 117, 120, 124, 165
- Parula, Northern, 18, 19, 34, 87, 157, 172, 183
- Pelican White, 26, 44, 79, 161
- Peters, Harold T., Mountain Bluebirds at Bemidji, 132
- Pewee, Eastern Wood, 13, 19, 32, 85, 158, 169, 183
- Phalarope,
Northern, 83, 167, 179
Wilson's, 29, 83, 167
- Pheasant, Ring-necked, 28, 81-82, 117, 120, 124, 157, 165
- Phoebe,
Eastern, 19, 31, 85, 158, 169, 182
Say's, 13-15, 25, 31, 49, 136
- Piefer, Rick, the 1975 spring migration at the Cold Spring heron colony, 153-155
- Pieper, Bill, Thayer's Gull at Duluth, 133-134
- Pigeon, Band-tailed, 186
- Pintail, 27, 51, 79, 116, 122, 131, 162
- Pipit, 159
Sprague's, 25, 33, 78, 86
Water, 86, 156, 158, 171
- Plover,
American Golden, 82, 165
Black-bellied, 17, 82, 157, 165
Piping, 29, 82, 157, 165
Semipalmated, 37, 82, 157, 165
- Pochard, Red-crested, 51
- Prairie Chicken, Greater, 28, 43, 81, 114, 117, 120, 124, 164, 191-192
- Rail, 159
King, 160, 165
Virginia, 18, 19, 29, 82, 165, 182
Yellow, 19, 26, 29, 48, 160, 165
- Raven, Common, 32, 85, 118, 126, 158, 170, 183
- Razorbill, 194
- Redhead, 27, 80, 116, 122, 162
- Redpoll,
Common, 89, 119, 127, 175, 183
Hoary, 119, 127, 175
- Redstart, American, 20, 35, 88, 142, 158, 173, 183
- Robin, American, 33, 86, 118, 126, 138-139, 158, 170, 183, 189-190
- Ruff, 136, 160, 167
- Sanderling, 37, 83, 142, 158, 167
- Sandpiper,
Baird's, 37, 83, 133, 158, 166
Buff-breasted, 83
Least, 37, 83, 158, 166
Pectoral, 17, 19, 37, 82-83
Semipalmated, 37, 83, 158, 166
Solitary, 82, 158, 166
Spotted, 29, 158, 166, 182
Stilt, 37, 83, 166
Upland, 29, 82, 136, 156, 158, 165
Western, 37, 83, 166
White-rumped, 37, 83, 156, 158, 166
- Sapsucker, Yellow-bellied, 19, 31, 85, 118, 125, 158, 173, 182
- Savaloja, Terry, spring season — March 1 to May 31, 1975, 160-177
- Scaup, 141
Greater, 27, 80, 120, 122, 156, 157, 163, 179
Lesser, 27, 80, 116, 122, 157, 163
- Schneider, Dean G. and Ronald D. Kneeskern, nesting of Swainson's Hawks in southeastern Minnesota, 61-66; Swainson's Hawks nest again in Austin, 193
- Scoter,
Black, 80, 163
Surf, 78, 80, 93, 163
White-winged, 11, 80, 93, 120, 123, 163
- Shearwater, 194
- Shelduck, Australian, 51
- Shoveler, Northern, 27, 51, 80, 116, 157, 162
- Shrike, 95, 96
Loggerhead, 33, 87, 95, 96, 121, 127, 146, 171
Northern, 87, 95, 96, 118, 127, 171
- Siskin, Pine, 36, 44, 89, 119, 120, 127, 159, 175, 183
- Sivets, Jerry, Ruffed Grouse in Hennepin County, 143
- Smith, William and Malenna, Snowy Egret observation, 134
- Snipe, Common, 29, 82, 117, 124, 158, 165, 182
- Solitaire, Townsend's, 120, 126, front cover No. 4
- Sora, 19, 29, 82, 92, front cover No. 3, 157, 165, 182
- Sparling, Donald W., Jr., Prairie Chicken killed by Goshawk, 191-192

- Sparrow, 40, 41, 47, 156, 159, 190
 Black-throated, 49, 78, 89
 Brewer's, 40-41, 90
 Chipping, 20, 36, 41, 90, 114, 119, 159, 175, 183
 Clay-colored, 20, 36, 40, 41, 90, 159, 175, 183, 190, 191
 Field, 36-37, 90, 119, 175
 Fox, 20, 90, 114, 128, 176, 183
 Grasshopper, 20, 36, 89, 175
 Harris', 90, 119, 128, 175
 Henslow's, 36, 160, 175
 House, 15, 35, 119, 120, 127, 129, 158, 159, 173, 195
 Lark, 36, 175
 LeConte's, 20, 36, 89, 157, 159, 175, 183
 Lincoln's, 20, 37, 90, 157, 176
 Savannah, 20, 36, 89, 159, 175, 183
 Sharp-tailed, 20, 26, 36, 175
 Song, 20, 37, 41, 90, 119, 128, 159, 176, 183
 Swamp, 20, 37, 90, 114, 119, 128, 159, 176, 183
 Tree, 89, 119, 128, 175, 183
 Vesper, 20, 36, 89, 121, 128, 156, 159, 175, 183
 White-crowned, 20, 90, 114, 128, 176
 White-throated, 20, 37, 90, 119, 128, 159, 176, 183
 Starling, 33, 118, 127, 158, 159, 171
 Storm petrel, 194
 Strnad, Forest V., more bird kills at KROC-TV tower, Ostrander, Minnesota, 16-21
 Strom, Dennis W., late Cattle Egrets, 93-94
 Sundquist, Koni, Scott's Oriole banded in Duluth, 22-24
 Swallow, 159
 Bank, 32, 85, 158, 169
 Barn, 32, 46, 85, 158, 169, 183
 Cliff, 32, 85, 143-144, 158, 169, 183
 Rough-winged, 32, 85, 158, 169, 183
 Tree, 32, 85, 158, 169, 183
 Swan, 41, 51, 140
 Mute, 25, 26, 41-43, 120, 121, 160, 162
 Trumpeter, 178
 Whistling, 26, 42, 79, 101, 116, 121, 140, 162
 Swift, Chimney, 30, 84, 146, 158, 168, 182
 Tanager, 137, 159
 Scarlet, 18, 20, 36, 89, 137, 157, 158, 174, 183
 Summer, 137-138, 160, 174
 Teal, 135
 Blue-winged, 27, 79, 122, 135, 157, 162, 182
 Cinnamon, 78, 79, 134-135, 160, 162
 Green-winged, 27, 51, 79, 122, 131, 157, 162, 182
 Tern, 70, 71, 72, 73, 92, 133, 142, 156, 159, 160, 187, 194, 196, 197
 Arctic, 25, 30, 133
 Black, 30, 84, 92, 133, 157, 167, 182, 187
 Caspian, 30, 84, 142, 158, 167
 Common, 19, 20, 30, 70, 71, 72, 74, 75, 76, 84, 142, 158, 167, 187
 Elegant, 103
 Forster's, 30, 50, 84, 92, 133, 156, 158, 167
 Least, 92, 132-133, 160, 167
 Roseate, 197
 Thrasher,
 Brown, 33, 86, 118, 126, 158, 170
 Curve-billed, 114
 Sage, 129-130
 Thrush, 141, 159
 Gray-cheeked, 19, 86, 171
 Hermit, 19, 33, 86, 158, 170, 183
 Swainson's, 19, 33, 86, 114, 118, 158, 171
 Varied, 86, 97, 114, 118, 126, 160, 170
 Wood, 19, 33, 86, 141, 158, 170, 183
 Titmouse, Tufted, 32, 86, 112, 118, 126, 170, 183
 Todd, J. W. and P. D. Doran, Golden-winged Warblers near Babbitt, Minnesota, 144; Rusty Blackbird observations near Babbitt, 192
 Towhee, Rufous-sided, 36, 89, 157, 175, 183
 Turkey, 29, 50, 81, 114, 117, 124, 165
 Turnstone, Ruddy, 37, 82, 113, 142, 158, 165
 Vasse, Sarah, an escaped American Flamingo, 43-44
 Veery, 19, 33, 86, 158, 171, 183
 Vireo, 93, 94, 156, 159
 Bell's, 33, 87, 93, 94, 160, 171
 Philadelphia, 19, 34, 87, 171
 Red-eyed, 19, 21, 34, 87, 158, 171, 183
 Solitary, 19, 34, 87, 157, 171, 183
 Warbling, 19, 34, 87, 158, 172
 Yellow-throated, 19, 33, 87, 92, 171, 183
 Vulture, Turkey, 28, 80, 123, 163, 182
 Warbler, 44, 50, 78, 92, 140, 145, 146, 156, 159
 Bay-breasted, 17, 20, 34, 88, 157, 173, 183
 Black-and-white, 19, 25, 34, 87, 96-97, 121, 127, 136, 158, 172, 183
 Blackburnian, 20, 34, 78, 87-88, 158, 173, 183
 Blackpoll, 20, 25, 34, 88, 146, 173
 Black-throated Blue, 20, 25, 34, 87, 172
 Black-throated Green, 20, 34, 78, 87, 157, 158, 172
 Blue-winged, 34, 160, 172
 Brewster's, 160, 172
 Canada, 20, 35, 88, 158, 173, 183
 Cape May, 20, 34, 44, 78, 87, 157, 172, 183
 Cerulean, 34, 172
 Chestnut-sided, 17, 20, 34, 88, 140, 143, 158, 173, 183
 Connecticut, 20, 35, 78, 88, 156, 158, 173, 183
 Golden-winged, 19, 34, 87, 92, 144, 157, 172, 183
 Hooded, 135, 141-142, 143, 160, 173
 Kentucky, 160, 173
 Magnolia, 20, 34, 87, 157, 158, 172, 183
 Mourning, 20, 35, 88, 158, 173
 Nashville, 19, 34, 87, 136, 158, 172, 183
 Orange-crowned, 19, 87, 172
 Palm, 20, 34, 88, 173
 Pine, 34, 88, 157, 173, 178, 183
 Prothonotary, 34, 172
 Tennessee, 19, 34, 87, 157, 172, 183
 Wilson's, 20, 35, 78, 88, 158, 173, 183
 Worm-eating, 135, 160, 172
 Yellow, 18, 19, 34, 87, 140, 158, 172, 183
 Yellow-rumped, 20, 34, 40, 87, 114, 140, 157, 172, 183
 Waterthrush,
 Louisiana, 20, 35, 88, 173
 Northern, 17, 20, 21, 35, 88, 158, 173
 Waxwing, 159
 Bohemian, 87, 118, 126, 171
 Cedar, 19, 33, 87, 118, 126, 158, 171, 183
 Whip-poor-will, 30, 84, 156, 158, 168
 Whimbrel, 82, 160, 165
 Wigeon, American, 27, 80, 116, 122, 162, 182
 Willet, 82, 166
 Woodcock, American, 29, 48, 82, 101, 136, 158, 160, 165, 182
 Woodpecker, 92, 93, 112, 120, 159, 192
 Black-backed Three-toed, 31, 85, 93, 98, 118, 120, 125, 169, 182
 Downy, 31, 118, 125, 158, 168, 182
 Hairy, 31, 93, 118, 125, 158, 168, 182, 192
 Ivory-billed, 145
 Lewis', 39-40, 49, 50, 120, 125, 160, 168
 Northern Three-toed, 85, 92-93, 125, 160, 169
 Pileated, 31, 84, 117, 125, 156, 158, 168, 182
 Red-bellied, 31, 84, 118, 125, 168, 192
 Red-headed, 31, 84, 118, 125, 158, 168
 Wren, 94, 159
 Carolina, 114, 118, 160, 170
 House, 19, 33, 40, 86, 94, 158, 170
 Long-billed Marsh, 19, 33, 86, 170, 183
 Rock, 78, 86, 94
 Short-billed Marsh, 19, 33, 86, 157, 158, 170
 Winter, 18, 19, 33, 86, 118, 158, 170, 183
 Yellowlegs,
 Greater, 82, 136, 166
 Lesser, 37, 82, 136, 157, 158, 166
 Yellowthroat, Common, 20, 35, 88, 92, 136, 158, 173, 183, 195
 Zimmer, Jim, hunting for Red-necked Grebes on Lake Mary, 50
 Zimmer, Kevin, Peregrine Falcons in Clay County, 43

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** need articles, shorter "Notes of Interest" and black/white photos. Photos should be preferably 5x7 in size. Manuscripts should be typewritten, double-spaced and on one side of the 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 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 Mrs. Janet Green. See inside front cover.

TABLE OF CONTENTS

TOWNSEND'S SOLITAIRE AT HAWK RIDGE Photo by Marj Carr	Front Cover
ARTHUR A. ALLEN AWARD GIVEN TO WALTER J. BRECKENRIDGE	151
THE PRESIDENT WRITES	152
THE 1975 SPRING MIGRATION AT THE COLD SPRING HERON COLONY by Rick Piefer	153
MAY BIG DAY IN SOUTHERN ST. LOUIS COUNTY by Gerald J. Niemi	156
THE SPRING SEASON — MARCH 1 TO MAY 31, 1975 by Terry Savaloja	160
WILDLIFE UTILIZATION OF BEAVER FLOWAGES ON THE CHIPPEWA NATIONAL FOREST, NORTH CENTRAL MINNESOTA by Ronald E. Kirby	180
NOTES OF INTEREST	185
BOOK REVIEWS	194
INDEX TO VOLUME 47	200