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"**The Season**" section of **The Loon** publishes reports of bird sightings throughout Minnesota. We particularly invite reports from parts of the state that have been neglected or covered lightly in past reports. To become a contributor to "The Season," request the report forms from the **EDITOR OF "THE SEASON,"** Kim Eckert, 9735 North Shore Drive, Duluth, Minnesota 55804. (phone 218-525-6930).

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# A QUARTER CENTURY OF GOSHAWK NESTING AT CLOQUET

Gordon W. Gullion

Several years ago we reviewed Goshawk nesting activity on the Cloquet Forestry Center, in the southwest corner of the city of Cloquet (Eng and Gullion, 1962).

The nesting activity reported in that paper continued uninterrupted until June 1967, when the female was shot at or near her nest. Also subsequent to the preparation of that 1962 paper I found what I believed to be the 1960 nesting site about 1200 feet southwest of the nesting sites used from 1956 to 1961.

Table 1 provides details concerning the nesting sites used on the Cloquet Forest. Particularly interesting was the reuse three times of the exact same sites used earlier. The 1961 nest was in the same position as the 1959 nest, the 1963 nest in the same position as the 1957 nest, and the 1965 nest repeated at the 1958 nest site. I have no definite records of Goshawk nesting again on the Cloquet Forest until 1978, but the 1978 nest yielded evidence which indicates that nest was used in 1974, as I'll explain later. Nesting occurred at Cloquet again in 1979 and 1980.

These nesting records for the last three years are especially interesting for several reasons. First, the female rearing three nestlings in 1978 was still in immature plumage but her mate was in full adult plumage. Secondly, unlike the earlier nests at Cloquet which were always in jack pines these three recent nests have been in hardwoods in forests dominated by jack, red and Scots pine. Finally in contrast to the earlier nesting which was in a fairly large stand of conifers

(769 acres), the more recent nesting has been in a smaller stand of conifers surrounded by considerable acreages of mixed conifer hardwood and young aspen stands. Although the 1979 nest was 1300 feet south of the 1978 and 1980 nests (which were only 120 feet apart) all three were still within the same block of continuous conifer canopy covering about 88 acres.

This pair of Goshawks selected nesting sites in 1978, '79 and '80 which placed them in the center of the second highest density of breeding Ruffed Grouse on the Cloquet Forest, and they took advantage of the situation. Between mid-April and mid-June of 1978 they had taken at least 11 (34%) of the 32 banded male Ruffed Grouse within a 3/4 mile radius of their nest site. The one better site would have been less favorable for these raptors for several of the grouse activity centers in the latter area were in young pole-stage aspen stands well removed from a conifer overstory and therefore relatively unavailable to the raptors which use conifers for ambush perches, as Goshawks do.

The probable 1974 nesting record is enigmatic, but circumstantial evidence seems to indicate that the 1978 nest was used that season. The evidence is a single leg band from Ruffed Grouse no. 771 found deep in the nesting materials of the 1978 nest on May 3, 1979 by Thomas Remington, one of my project assistants. We knew to within a few hours of when bird 771 was killed on June 10, 1974, in front of a mirror trap on a drumming log 1.57 miles southeast of this nest site. His other three bands plus several bones

were found about 100 feet from the kill site on September 18, 1974, and I conclude that this bird was killed by a Goshawk and the one band was carried back to the nest on part of the carcass at that time.

Further evidence that Goshawks were probably resident at Cloquet in 1974 is based on the large number of grouse (22) recovered as Goshawk kills that season. The 1974 recorded kill by Goshawks has been exceeded in only two other seasons since 1956 and exceeded the known kill for any of the past three seasons (1978-80). Also the 1974 season was marked by a high incidence of "escape" records wherein grouse lose part or most of their tails in close encounters, but survive to be taken on drumming logs, with characteristic winter grown rectrices which

are markedly shorter and usually darker than feathers replaced during the normal post-nuptial molt. Only in 1972 (8) and 1975 (10) have we handled more "escaped" birds than the seven handled in 1974 (and again in 1977).

One puzzling aspect about this 1974 nesting record is that we were trapping for an actively drumming male grouse using a log only 120 feet from the raptor nest. In spite of at least 12 trips being made to and from that log and trap in late April and early May, passing within about 80 feet of the nest site, no one was challenged by the nesting raptors. Evidently the Goshawks took that drummer before we trapped him, for while he was heard drumming there on both April 26 and April 30 use of the log had ceased by May 1.

Table 1. Goshawk Nesting Sites in Cloquet Area

Year	Height	Type of Tree	No. Fledged
<b>CLOQUET FOREST</b>			
1956	No Record	Jack pine	3
1956	25 feet	Jack pine	3
1957	24 feet	Jack pine, 9.6 in. dbh, 52 ft. tall	3
1958	40 feet	Jack pine, 9.2 in. dbh, 65 ft. tall	?
1959	34 feet	Jack pine, 11.9 in. dbh, 62 ft. tall	3
1960*	34 feet	Jack pine, 10.4 in. dbh, 68 ft. tall	?
1961	same site as in 1959		
1962	39 feet	Jack pine, 10.3 in. dbh, 66 ft. tall	?
1963	same site as in 1957		
1964	37 feet	Jack pine, 10 in. dbh, 60 ft. tall	?
1965	same site as in 1958		
1966	27 feet	Jack pine, 9.4 in. dbh, 60 ft. tall	2
1967	32 feet	Jack pine, 14.3 in. dbh, 75 ft. tall	none
1978	26 feet	Paper birch, 11.4 in. dbh, 60 ft. tall	2
1979	38 feet	Paper birch, 12.0 in. dbh, 67 ft. tall	2
1980	35 feet	Aspen, 12.2 in. dbh, 51 ft. tall	1
<b>BOB LAKE AREA</b>			
1968	46 feet	Trembling aspen, 7 in. dbh	?
1971	38 feet	Paper birch, 8.5 in. dbh	?
1974?*	45 feet	Basswood, 10 in. dbh	?
1975	same site as in 1971		1
Pre1975**	40 feet	Paper birch, 7.5 in. dbh	?

\* Probable site of 1960 nesting, not located until 1962.

\*\* Probably Goshawk nests found by Tom Davis in 1976.

Although breeding Goshawks were absent from the Cloquet Forest for several years after 1967, Goshawks did nest on other parts of our Cloquet Ruffed Grouse study area. In 1968, 1971 and 1975 occupied nests were located about 900 feet east of Bob Lake and 5.5 miles southwest of the sites used on the Cloquet Forest prior to 1968. The 1971 nest was about 800 feet northeast from the 1968 nest and the same site was used again in 1975.

Tom Davis placed radios on the female and single nestling in 1975 and tracked their movements for many weeks during a study which has yet to be published. Tom also found two additional sites along a high esker extending east from Bob Lake which he suspected were earlier Goshawk nests.

Prey taken by Goshawks at Cloquet has continued to be dominated by the

species listed in our 1962 paper, that is, hares, squirrels, jays, Common Crows, Common Flickers and Ruffed Grouse. The only noteworthy additions have been porcupines in 1963 and 1978, American Woodcock in 1963, a white leghorn chicken in 1964, Franklin ground squirrels in 1964 and 1980, a Pine Grosbeak and Black-backed Three-toed Woodpecker in 1965, several domestic pigeons or Rock Doves in 1966, an adult Northern Green Heron and possibly a young Broad-winged Hawk in 1978.

#### Literature Cited

Eng, R. L. and G. W. Gullion. 1962. The Predation of Goshawks upon Ruffed Grouse on the Cloquet Forest Research Center, Minnesota. *Wilson Bulletin* 74:227-242.

Forest Wildlife Project, University of Minnesota, Cloquet, Minn. 55720.

## MINNESOTA NATURAL HERITAGE PROGRAM, BREEDING BIRD ELEMENTS

Lee A. Pfanmuller and Douglas G. Wells

In January, 1979, the Minnesota Department of Natural Resources (DNR) entered into a contractual agreement with The Nature Conservancy for the development of the Minnesota Natural Heritage Program. Like similar programs across the nation, the Minnesota Natural Heritage Program was designed to help identify and protect significant features of our state's nat-

ural environment. As Minnesota's economy continues to grow and as the demand for its natural resources continues to increase, it is imperative that we take stock of those features of our environment that are threatened by these developments. The Minnesota Natural Heritage Program, now incorporated into the DNR, accomplishes this task by establishing an

ongoing inventory process that identifies and locates occurrences of plant and animal species, plant communities, wildlife habitats and geologic features in need of special attention. These features, referred to as Elements, are of significance because they are rare or endangered on a national or statewide basis.

The information gathered on each Element occurrence is sorted into an integrated data management system. Map files, manual files, and computer files keep the information well-organized and accessible for a variety of uses. Planners, developers, and other decision-makers have access to the system to help evaluate alternative courses of action, especially in siting decisions, before commitments are made. The system also allows biologists to conduct a more objective evaluation of lands and ecological resources for the purpose of identifying the most important natural areas in Minnesota.

One of the tasks of the Minnesota Natural Heritage Program was to prepare an Element list of breeding bird species whose biological requirements merit special consideration by land developers, conservationists and biologists throughout the state. The efforts of early ornithologists in Minnesota (e.g. Hatch 1874, Roberts 1932) help to provide a relatively good historic record of the abundance and distribution of many breeding species. After a review of the historic and current records, a list of birds considered to be Elements was compiled by the Heritage Program, working closely with the MOU Records Committee and other individuals knowledgeable about the states avifauna. The Element list, presented at the end of this article, represents those bird species which will receive emphasis statewide in the environmental planning process and in natural areas evaluation.

The species presented in the list have been arranged into status categories that establish the criteria for selecting each species as an Element.

It is important to note that these categories, except where noted otherwise, are not official listings either on the state or federal level. The status categories, in order of priority for program emphasis by the Natural Heritage Program, are as follows:

**ENDANGERED** — Species that face extirpation in Minnesota in the near future if efforts are not made to preserve their remaining populations. This category includes species that have been listed as federally endangered.

**THREATENED** — Species that may become endangered if their populations are significantly reduced. Species assigned to this category might be characterized by:

1. Populations that have always been small and any decline in their numbers would be significant, and/or
2. Populations that have already undergone an apparent decline and for whom any further decline would be detrimental.

This category includes species that have been listed as federally threatened.

**RARE** — Species that are not currently considered to be endangered or threatened but by virtue of their limited occurrence warrant close scrutiny. This category includes species for which there is currently no evidence of a decline in species population or for which the decline is not yet considered significant.

**SPECIAL CONCERN** — Species that do not belong in one of the preceding categories but do require special attention because:

1. the species are subjected to species-specific exploitation, and
2. the habits and habitats of the species make them particularly vulnerable to disturbance.

**STATUS UNDETERMINED** — Species that are suspected of belonging in

one of the preceding categories but for which there is too little current information to make a judgment.

**EXTIRPATED** — Species that have disappeared as breeding birds from Minnesota since the early 1900's. Some of the species could perhaps reestablish populations in the state should environmental conditions become more favorable.

**EXTINCT** — Species that have disappeared not only from Minnesota but throughout their entire range.

Breeding records for each of the species listed below are maintained in the Heritage files and the locations are mapped as accurately as possible on topographic maps. These records are supplied largely through the efforts and activities of 1) the Non-Game Office of DNR and 2) members of the MOU. **To strengthen the data base of the Natural Heritage Program, we would like to request that observers submitting summer seasonal reports to MOU include as much detailed information as is available on breeding records of the species listed as Elements.** Of particular interest is the exact location of the breeding record, the evidence suggesting breeding (e.g., nest with with eggs, fledged young) and, of course, the name of the observer and the date of the observation. Location information can be in the form of legal descriptions (down to 40-acre blocks within a given section) and/or directions based on roads or landmarks.

We also welcome any comments and suggestions on additions or deletions to the breeding bird Element list. Lists of species considered to be Elements also have been developed for plants, plant communities, mammals, reptiles, amphibians, fish, and freshwater mussels. Anyone interested in having input concerning any of these taxa should feel free to contact us for further information.

## MINNESOTA NATURAL HERITAGE PROGRAM

### Breeding Bird Elements

#### MNHP STATUS

#### Endangered

#### Species

- <sup>1</sup> American Peregrine Falcon
- <sup>1,2</sup> Arctic Peregrine Falcon
- Whooping Crane
- Piping Plover
- Burrowing Owl
- Sprague's Pipit
- Baird's Sparrow
- Chestnut-collared Longspur

#### Threatened

- <sup>1</sup> Bald Eagle
- Greater Prairie Chicken
- Sandhill Crane
- Short-eared Owl
- Loggerhead Shrike

#### Rare

- Horned Grebe
- Eared Grebe
- White Pelican
- Double-crested Cormorant
- Goshawk
- Merlin
- Bobwhite
- King Rail
- Yellow Rail
- Common Gallinule
- Marbled Godwit
- Wilson's Phalarope
- Franklin's Gull
- Common Tern
- Great Gray Owl
- Acadian Flycatcher
- Tufted Titmouse
- Bell's Vireo
- Black-throated Blue Warbler
- Louisiana Waterthrush
- Blue Grosbeak
- Henslow's Sparrow
- Sharp-tailed Sparrow

#### Special Concern

- Western Grebe
- Great Blue Heron
- Great Egret
- Black-crowned Night Heron
- Upland Sandpiper
- Herring Gull
- Ring-billed Gull

Forster's Tern	<b>Undetermined</b>
Little Blue Heron	
Cattle Egret	
Snowy Egret	
Yellow-crowned Night Heron	
Willet	
American Avocet	
Barn Owl	
Boreal Owl	
Northern Three-toed Woodpecker	
Black-billed Magpie	
Mockingbird	
Yellow-breasted Chat	
Wilson's Warbler	
Rusty Blackbird	
Lark Bunting	
	<b>Extirpated</b>
White-faced Ibis	
Trumpeter Swan	
Swallow-tailed Kite	
Long-billed Curlew	<b>Extinct</b>
McCown's Longspur	
Passenger Pigeon	

<sup>1</sup> This species officially receives an identical status designation by the U.S. Department of Interior, Fish and Wildlife Service and by the State of Minnesota.

<sup>2</sup> This species is not a breeding bird of the state but only occurs during migration. It is listed here due to its inclusion on the federal endangered species list.

#### REFERENCES

- Hatch, P. L. 1874. Report on the Birds of Minnesota. Bull. Minn. Acad. Nat. Sci. 1874. pp 43-68.
- Roberts, T. S. 1932. The Birds of Minnesota. University of Minnesota Press.
- Minnesota Natural Heritage Program, Research and Policy Section, Minnesota Department of Natural Resources, Box 11, Centennial Office Building, St. Paul, MN 55155

## BIRD LIST OF THE THIEF RIVER FALLS SEWAGE LAGOONS

Shelley Steva

This bird list was compiled from April 15, 1980 through November 6, 1980. The list was compiled with the cooperation of the Waste Water Treatment Department, City of Thief River Falls, Thief River Falls, Minnesota, 56701 and in particular, Bud Enge who provided access to the facility. The lagoons are located as: the south half of section 31 of North Township, Pennington County (T154N, R43W) and the northwest quarter section of

Section 6 of Rocksbury Township, Pennington County (T153N, R43W). The area consists of roughly 480 acres of which most is open, shallow water of typically two to three feet contained in three pools of varying turbidity and organic matter content. The pools are separated and contained by raised dikes covered primarily with mowed grass. The area is located in an agricultural area with cultivated lands surrounding the facility and with

stands of quaking aspen in the vicinity. Within the lagoon facility land surrounding the outer dikes are cropped. This year corn was raised. The area around the facility is typically plowed when not covered by crop. The lagoon shores are generally mineral soils with 0 to 10 feet of exposed soil depending on the lagoon water levels. A small percentage of the shoreline has been rip wrapped with concrete to reduce erosion due to wind and wave action.

The results of the study were more spectacular than was hoped for at the beginning. With 89 species seen in seven months of which 14 species exhibited nesting evidence, the results seem to indicate that sewage lagoons are an excellent migratory stopping point as well as a significant nesting habitat. The value to shore birds in migration is clearly evident by the varied number of species, and the large numbers of several of the species. Interesting observations included a Red Knot (seen May 21) and the earliest date ever accepted for a fall Hudsonian Godwit in Minnesota (July 31). Nesting for Marbled Godwits was established by an observation of a young Marbled Godwit. Wilson's Phalaropes and Lesser Yellowlegs were seen in numbers up to about 5,000 on a visit to the lagoons during their peaks. Many of the other species could be seen in numbers in the thousands during their peak periods. Several species seen are unusual for Minnesota. These include the American Avocet, Piping Plover and Red Knot.

The value of the lagoons to the birds seems to be the probable result of several factors. One significant factor is the size of the lagoons. Another factor is the fact that the lagoons are relatively undisturbed. Another factor is that the exposed soil along the shoreline and the organic matter provide food for invertebrates which in turn provide food for the birds. The minimal rip wrapping does not appreciably reduce the available shoreline and in fact provides some additional

variability to the habitat. Finally, the fact that the lagoons are relatively shallow and open attract many of the waterfowl.

This list begins with the common name on the left, the seasons the birds were seen, and a general indication of their abundance. The general abundance indication is based on peak numbers seen on a given day for that species.

The season dates indicated cover the dates given below:

Spring: March 1 to May 31

Summer: June 1 to July 31

Fall: August 1 to November 30

The general abundance indication is:

R: Rare — Less than ten individuals seen on any given visit.

U: Uncommon — From ten to 49 individuals seen on any given visit.

C: Common — From 50 to 1000 individuals seen on any given visit.

A: Abundant — over 1000 individuals seen on any given visit.

\*Breeding

Common Name	S	S	F	U
Red-necked Grebe	X			U
Horned Grebe	X	X	X	U
Eared Grebe	X	X	X	C
Pied-billed Grebe	X	X	X	C
Double-crested Cormorant		X	X	R
Whistling Swan			X	R
Canada Goose	X	X	X	U
Snow Goose			X	U
*Mallard	X	X	X	C
Black Duck		X		R
*Gadwall	X	X	X	C
*Pintail	X	X	X	C
Green-winged Teal	X	X	X	U
*Blue-winged Teal	X	X	X	C
American Wigeon	X	X	X	U
*Northern Shoveler	X	X	X	A
*Wood Duck	X	X	X	U
*Redhead	X	X	X	C
*Canvasback	X	X	X	U
Ring-necked Duck	X	X	X	U
Lesser Scaup	X		X	C
Common Goldeneye	X		X	R
Bufflehead	X		X	U
*Ruddy Duck	X	X	X	C
Common Merganser			X	R
Cooper's Hawk			X	R

Common Name	S	S	F	Common Name	S	S	F
Red-tailed Hawk			X R	American Avocet	X		U
Broad-winged Hawk			X R	Wilson's Phalarope	X	X	X A
Rough-legged Hawk			X R	Northern Phalarope	X	X	X C
Marsh Hawk			X R	Herring Gull			X U
Osprey			X R	Ring-billed Gull	X	X	X U
American Kestrel	X	X	X U	Franklin's Gull	X	X	X U
American Coot	X	X	X A	Bonaparte's Gull			X R
Semipalmated Plover	X		U	Black Tern			X U
Piping Plover	X		R	Mourning Dove	X	X	X C
*Killdeer	X	X	X C	Snowy Owl			X R
American Golden Plover	X		C	Common Flicker	X	X	X C
Black-bellied Plover	X		X C	Eastern Kingbird	X	X	X R
Ruddy Turnstone	X		U	Horned Lark	X		X U
Common Snipe			X R	Tree Swallow	X		X A
Spotted Sandpiper	X	X	U	Barn Swallow	X	X	X A
Solitary Sandpiper	X		R	Cliff Swallow	X		X C
Greater Yellowlegs	X	X	X U	Common Crow			X U
Lesser Yellowlegs	X	X	X A	Water Pipit			X C
Willet	X		U	Yellow-rumped Warbler			X U
Red Knot	X		R	Bobolink		X	R
Pectoral Sandpiper	X	X	X C	*Western Meadowlark	X	X	X C
White-rumped Sandpiper	X		R	Red-winged Blackbird	X	X	X C
Baird's Sandpiper	X	X	X U	Yellow-headed Blackbird	X	X	X U
Least Sandpiper	X	X	X C	Common Grackle	X	X	U
Dunlin	X		X U	Brewer's Blackbird	X	X	U
Semipalmated Sandpiper	X	X	X C	Brown-headed Cowbird	X	X	R
Western Sandpiper	X		R	*American Goldfinch	X	X	X U
Sanderling	X		X U	*Savannah Sparrow	X	X	X C
Short-billed Dowitcher	X		? R	Clay-colored Sparrow	X		U
Long-billed Dowitcher	X		? R	Snow Bunting			X U
Stilt Sandpiper	X	X	X U				
*Marbled Godwit	X	X	X C				
Hudsonian Godwit	X	X	U				

Rt. 4, Box 10, Thief River Falls, MN 56701

### BIRD BONANZAS — MINNESOTA 1980

The 1980 Bird Bonanzas Minnesota tour recorded a number of interesting birds among its total of 185 species. A Merlin was watched for several minutes along the shore of Iron Lake in Cook County on June 21. Yellow Rails were seen in Aitkin County on June 14 and 15, at times so close that tour participants could touch them. A possible Thayer's Gull was seen among the Herring Gulls in Grand Marais harbor on June 21. The adult bird, which appeared smaller than the surrounding adult Herring Gulls, had a dark iris, but flew off with the flock before a positive identification could be made. On June 16 in Norman County shortly after viewing a young Saw-whet Owl just out of the nest we discovered a Long-eared Owl's nest. The Long-eared's nest, which contained one adult and two young, was only 150 feet from the Saw-whet Owl's nest. Young owls were again seen on June 18 when in Roseau County we watched two young Great Gray Owls. Also seen on June 18 were three Black-backed Three-toed Woodpeckers in Beltrami Island State Forest. Two of the birds were feeding young in a nest tree. A singing male Wilson's Warbler was observed along Superior National Forest Road on June 21. We were able to bring in a female with pishing but time did not allow a search for a nest. Terry Savaloja, Box 244, Deerwood, MN 56444.

# BREEDING BIRDS IN MINNESOTA, 1975-1979: ABUNDANCE, DISTRIBUTION, & DIVERSITY

Carrol L. Henderson

## ABSTRACT

From 1975 through 1979, up to 52 United States Fish and Wildlife Service Breeding Bird Survey (BBS) routes were run 175 times in Minnesota. A five-year total of 150,428 birds composed of 202 species were counted on 4,375 miles of routes. The average number of birds per hundred miles of route was 3,438. Ten species accounted for 75,348 (50 percent) of the birds encountered: red-winged blackbird, common grackle, house sparrow, starling, western meadowlark, mourning dove, American robin, cliff swallow, common crow, and common yellowthroat. The distribution of each species encountered has been analyzed according to 14 regions in the state and densities have been plotted in terms of birds per hundred miles of route. The lowest number of species counted in one region was 74 and the highest number of species counted in one region was 126. This analysis will be carried out every five years to monitor long term trends in the abundance, distribution and diversity of Minnesota birds.

## INTRODUCTION

The primary purpose of the Breeding Bird Surveys (BBS) is to determine the population trends of North American bird species. Analysis of population trends is carried out by the Migratory Bird and Habitat Research Lab, U.S. Fish and Wildlife Service, at Laurel, Maryland. Results of that analysis are available at that office.

Since the initiation of the U.S. Fish and Wildlife Service Breeding Bird Surveys in 1966 in the midwest, these annual surveys have served as the single most important source of population trend data for many species of birds. Janssen (1979) and Zimmerman (1978) have both reviewed the history

and techniques employed to conduct the surveys.

Danny Bystrak is in charge of the national BBS program at the Migratory Bird and Habitat Research Lab at Laurel, Maryland, and Robert Janssen is in charge of coordinating Minnesota's 52 routes. Dr. Walter Breckenridge was in charge of the Minnesota program from 1967 until 1977.

This report analyzes the composite results of the BBS data from 1975 through 1979. A five-year total of 150,428 birds of 202 species was counted on 175 routes. Each route is actually 24.5 miles long, but 25 miles is used in all calculations for the sake of simplicity, giving a total of 4,375 miles. The average number of birds recorded per 100 miles of route was 3,438. These results have been analyzed several ways to provide birders, professional ornithologists, environmental planners, and other biologists with information on the abundance, distribution and diversity of Minnesota birds.

## METHODS

Data were taken from copies of the summary sheets from the routes run from 1975 through 1979. These and county maps showing each route were supplied by the U.S. Fish and Wildlife Service at Laurel, Maryland. The locations of Minnesota routes are shown in Figure 1.

Each one degree block of latitude and longitude (about 55 miles wide, east to west, and 70 miles long) is sampled by one or more random transects, or routes. Minnesota has two routes per degree block. Starting points and compass directions have been determined at random. Each route is covered once in June or the first week of July. Observers begin exactly one-half hour before sunrise

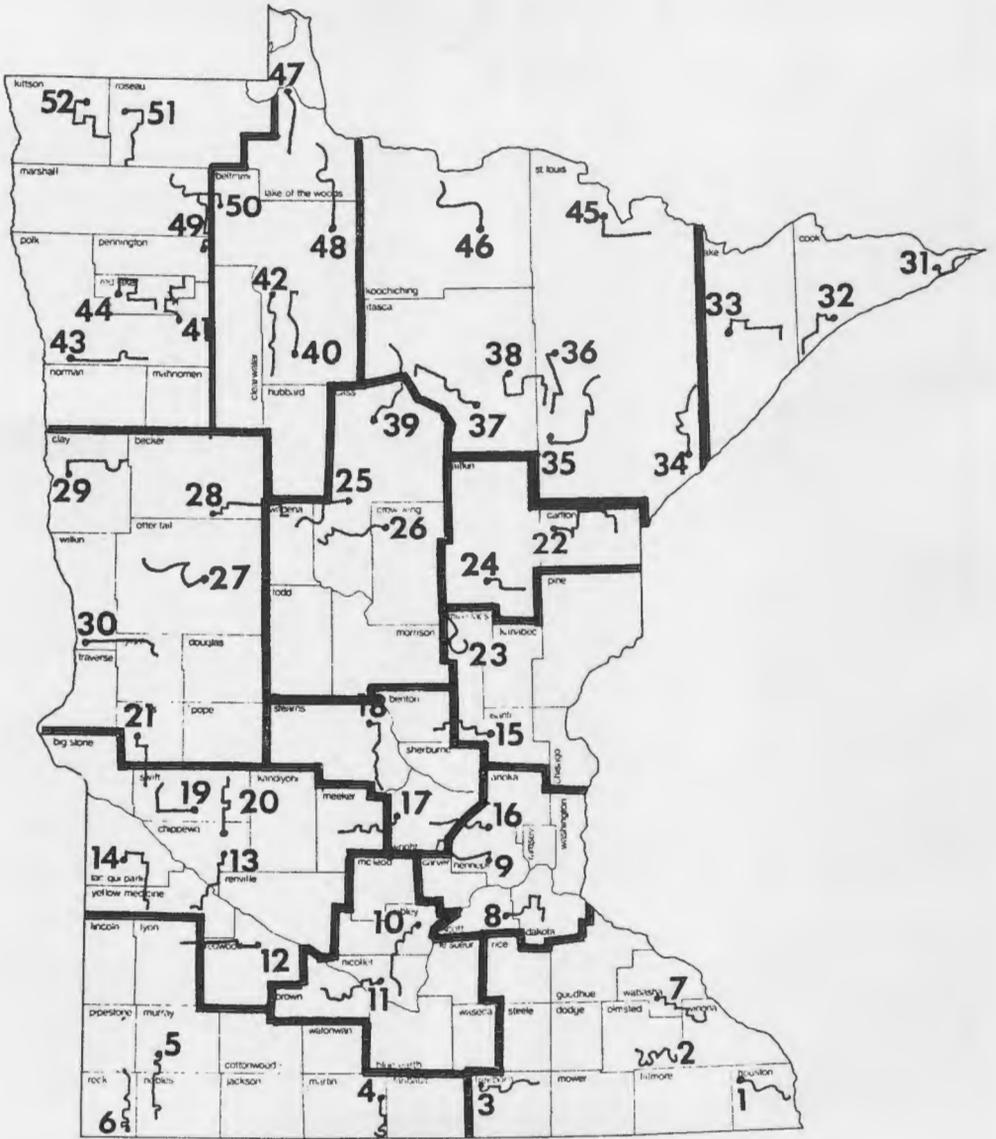


Figure 1. Breeding Bird Survey Routes.



and make 50 stops at one-half mile intervals. They count all birds heard at each stop or seen within one-fourth mile during a 3-minute watching and listening period. One observer must do all the observing on a given route, but he may have an assistant to help with recording or driving. Unless conditions are very poor, most routes should be completed in 4 to 4½ hours.

The results of each route were broken down to the county where the observations occurred. Each summary sheet for a route had five subtotals, one for each ten counting sites in each five miles. Where a route crossed a county line, the ten site increment where the crossing occurred was analyzed to see which county contained most of that ten site segment. The tally for that subtotal was then recorded for the county with more than five sites of the route.

For analytical purposes the state was divided into 14 regions which correspond to the six Department of Natural Resources administrative regions and to smaller units that are considered according to major drainage basins and general vegetation type. These regions are shown in Figure 2.

Bird tallies were compiled by region, species, and by several general categories: native game birds, introduced game birds (ring-necked pheasant and gray partridge), native non-game birds, and introduced pest birds (house sparrow, starling, and rock dove). All counts were then converted to the number of birds per hundred miles of route and these results were mapped by region. All values less than one were rounded to one.

## RESULTS AND DISCUSSION

The results of the regional analysis of bird occurrence were tallied by species.

A total of 150,428 individuals of 202 species was counted during the five-year period. Ten species accounted for 50 percent of the birds counted: red-winged blackbird, common grackle, house sparrow, starling, western meadowlark, mourning dove, Ameri-

can robin, cliff swallow, common crow, and common yellowthroat.

### Relative Abundance and Distribution

This analysis also utilizes the data from the BBS to assess the general distribution of bird species in Minnesota and the relative abundance of individual species among the various regions. In this report the term "relative abundance" refers to the abundance of a **single** bird species in various regions. The term "apparent abundance," which is explained in the following section, is a more general approximation which compares the number of birds seen **among** bird species.

The data were converted to "birds per 100 miles" by dividing the count for each species in each region by the number of miles driven in that region. This allows the portrayal of a map of distribution and relative abundance for each species. This approach is possible because the routes are all run uniformly. These maps are presented in Appendix I.

It should be emphasized that these distribution maps portray the approximate, not the exact, range for most species. If no number is given for a certain region for a species, it can mean one or more of five things: 1) The species is absent in that region as a breeding species, 2) The species is present in low levels in that region and was not detected due to the randomness of the survey, 3) the species is present, but not detectable by this kind of survey technique, 4) the species is present, but because of specific habitat needs was missed due to the randomness of the survey, and 5) the coverage was inadequate. Either there were not enough routes or observers were not skilled enough to record some species.

Appendix II contains maps showing the statewide summaries for the data.

### Apparent Abundance of Breeding Birds

Each species of breeding bird is characterized by a different degree of

visibility and audibility. This is a reflection of the species' size, activity period, coloration, nesting season phenology, and habitat use with relation to road systems. Comparison of BBS counts among species must therefore not be confused as the exact relative abundance among species. It is actually an "apparent abundance" or detectability that is dependent on the variable visibility and audibility factors. The apparent abundance is still, however, a useful source of data for general comparisons of abundance among the species.

For the sake of completeness, it should be mentioned that "flocking" also affects "apparent abundance." Reporting 500 yellowthroats means something quite different from 500 Franklin's gulls. Flocking aspects are not dealt with in this report.

There is also a need to identify Minnesota's most common breeding birds for educational purposes. The "apparent abundance" of Minnesota's 50 most apparent breeding birds is presented in Table I.

Table 1. "Apparent abundance" of Minnesota's 50 most apparent breeding birds, 1975-1979. These birds accounted for 89.90 percent of all birds counted.

**Rank 1-10 (50.09%)**

Red-winged blackbird  
Common grackle  
House sparrow  
Starling  
Western meadowlark  
Mourning dove  
American robin  
Cliff swallow  
Common crow  
Common yellowthroat

**Rank 11-20 (18.35%)**

Barn swallow  
Brown-headed cowbird  
Song sparrow  
Red-eyed vireo  
Vesper sparrow  
Rock dove  
Bobolink

Spring 1981

Savannah sparrow  
Veery  
Ovenbird

**Rank 21-30 (10.34%)**

Killdeer  
House wren  
White-throated sparrow  
Yellow-headed blackbird  
Chestnut-sided warbler  
Ring-necked pheasant  
Horned lark  
Blue jay  
Chipping sparrow  
Mallard

**Rank 31-40 (6.58%)**

American goldfinch  
Nashville warbler  
Rose-breasted grosbeak  
Tree swallow  
Least flycatcher  
Mourning warbler  
Common flicker  
Clay-colored sparrow  
Yellow warbler  
Northern oriole

**Rank 41-50 (4.56%)**

Purple martin  
Gray catbird  
Great crested flycatcher  
Bank swallow  
Eastern kingbird  
Black-billed cuckoo  
Brewer's blackbird  
Indigo bunting  
Franklin's gull  
Alder flycatcher

**Widespread Species**

In addition to a consideration of which birds are more abundant in Minnesota, it is also worthwhile to identify those species that are the most widespread. These widespread species are either adaptable to many varying habitats throughout Minnesota or are found in specific habitats that are distributed throughout the state. Fifty-six species were counted in either 13 or 14 of the 14 regions used for this analysis during the five-year period. This list can be of particular importance to educators. These species are identified in Table 2.

Table 2. Widespread species.

Great blue heron  
 American bittern  
 Mallard  
 Blue-winged teal  
 Wood duck  
 American kestrel  
 Killdeer  
 Common snipe  
 Spotted sandpiper  
 Rock dove  
 Mourning dove  
 Black-billed cuckoo  
 Chimney swift  
 Belted kingfisher  
 Common flicker  
 Hairy woodpecker  
 Downy woodpecker  
 Eastern kingbird  
 Great crested flycatcher  
 Eastern phoebe  
 Least flycatcher  
 Eastern wood pewee  
 Tree swallow  
 Bank swallow  
 Barn swallow  
 Cliff swallow  
 Purple martin  
 Blue jay  
 Common crow  
 Black-capped chickadee  
 House wren  
 Short-billed marsh wren  
 Gray catbird  
 Brown thrasher  
 American robin  
 Starling  
 Red-eyed vireo  
 Warbling vireo  
 Yellow warbler  
 Common yellowthroat  
 House sparrow  
 Bobolink  
 Western meadowlark  
 Red-winged blackbird  
 Northern oriole  
 Brewer's blackbird  
 Common grackle  
 Brown-headed cowbird  
 Rose-breasted grosbeak  
 Indigo bunting  
 American goldfinch  
 Savannah sparrow  
 Chipping sparrow

Clay-colored sparrow  
 Swamp sparrow  
 Song sparrow

**Uncommon Birds and/or Birds with Limited Distribution**

In contrast to a review of the state's most abundant and most widespread bird species, it is important to identify those birds which appear to be least abundant and/or least widely distributed. When these species are then considered with those identified as not being effectively counted by BBS routes (Table 4) and those not encountered on BBS routes (Table 5) it becomes possible to consider the status of our most uncommon birds. Table 3 is a list of the most uncommon and most locally distributed birds in Minnesota according to the BBS surveys from 1975 to 1979. Bird species in Table 4, those not effectively counted on BBS routes, are not included. Uncommon species are those for which 15 or fewer individuals were counted during the five-year period and/or those which were recorded in only one or two of the 14 regions.

Table 3. Uncommon Birds and/or Birds with Limited Distribution on BBS Routes from 1975 to 1979.

Western grebe  
 Least bittern  
 Black duck  
 Gadwall  
 Green-winged teal  
 American wigeon  
 Northern shoveler  
 Ring-necked duck  
 Canvasback  
 Lesser scaup  
 Common goldeneye  
 Hooded merganser  
 Red-breasted merganser  
 Turkey vulture  
 Bobwhite  
 Sandhill crane  
 Yellow rail  
 Wilson's phalarope  
 Forster's tern  
 Short-eared owl  
 Gray jay

Black-billed magpie  
 Blue-gray gnatcatcher  
 Golden-crowned kinglet  
 Loggerhead shrike  
 Bell's vireo  
 Philadelphia vireo  
 Blue-winged warbler  
 Tennessee warbler  
 Magnolia warbler  
 Cape May warbler  
 Black-throated blue warbler  
 Cerulean warbler  
 Bay-breasted warbler  
 Palm warbler  
 Orchard oriole  
 Blue grosbeak  
 Evening grosbeak  
 Pine siskin  
 Red Crossbill  
 Baird's sparrow  
 Henslow's sparrow  
 Sharp-tailed sparrow  
 Lark sparrow  
 Dark-eyed junco  
 Lincoln's sparrow

#### **Species Not Effectively Counted by BBS Survey Technique**

Not all bird species lend themselves equally well to being surveyed by the BBS. Among the bird species counted from 1975-1979 that are not effectively counted by BBS techniques are nocturnal birds, crepuscular birds, gallinaceous birds with early nesting seasons, very small birds with faint calls, and several of the raptors which appear to have low counts either because of early nesting seasons or low flight activity in early morning hours.

A few examples of birds which appear to fall into this category are listed in Table 4. This is not a definitive list. It is admittedly subjective, but it is included to help explain the inconsistent distribution and relative abundance levels reported for these species.

Table 4. Species suggested as not being effectively counted by BBS routes.

Sharp-shinned hawk  
 Cooper's hawk

Red-shouldered hawk  
 Swainson's hawk  
 Bald eagle  
 Osprey  
 Ruffed grouse  
 Sharp-tailed grouse  
 American woodcock  
 Screech owl  
 Great-horned owl  
 Barred owl  
 Saw whet owl  
 Whip-poor-will  
 Common nighthawk  
 Ruby-throated hummingbird  
 Brown creeper

#### **Species Not Encountered on BBS Routes**

There are 233 species of birds known or believed to currently breed in Minnesota.

Of the 202 species counted on BBS rough-legged hawk, greater yellowlegs, lesser yellowlegs, band-tailed pigeon, and Caspian tern are not known to currently breed in the state.

It is of interest to know what breeding species were not counted on BBS routes. This knowledge can help in identifying priorities for rare birds which deserve consideration for alternative inventory methods.

Table 5 is a list of 36 casual or regular birds known or believed to currently breed in Minnesota which were not counted on BBS routes from 1975-1979.

During the five-year counting period, 197 of 233 breeding species (84.5 percent) in the state were recorded on BBS routes.

Table 5. Birds currently known or believed to breed in Minnesota, which were not counted on BBS routes from 1975-1979.

#### **Wetland Species**

Red-necked grebe  
 Horned grebe  
 Eared grebe  
 Little blue heron  
 Cattle egret

Snowy egret  
Yellow-crowned night heron  
Common merganser  
King rail  
Common gallinule  
Piping plover  
American avocet  
Common tern

### **Prairie/Grassland Species**

Greater prairie chicken  
Burrowing owl  
Sprague's pipit  
Lark bunting  
Baird's sparrow  
Chestnut-collared longspur

### **Southeastern Forest Species**

Turkey  
Acadian flycatcher  
Tufted titmouse  
Carolina wren  
Mockingbird  
Prothonotary warbler  
Louisiana waterthrush

### **Northern Forest Species**

Goshawk  
Merlin  
Spruce grouse  
Hawk owl  
Great gray owl  
Long-eared owl  
Boreal owl  
Black-backed 3-toed woodpecker  
Boreal chickadee

### **Other Species**

Western wood pewee

### **Species Diversity**

The species diversity of Minnesota birds, both statewide and regionally, is a useful indicator for evaluating the general condition of the environment. More habitat diversity and more complex structure within habitats contributes to greater species diversity. Greater diversity is considered to be a desirable characteristic contributing to greater ecological stability (Dasmann 1968). Unfortunately, man tends

to simplify environments or create monocultures (single species environments) for his own benefit. This creates a long term downward trend in species diversity. It also creates favorable habitat for extremely adaptable pest birds like starlings, house sparrows, and rock doves. These birds then become the dominant species in these simplified communities, outnumbering most other birds.

The measurement of such species diversity can include the number or total species, or more complex indices like the Simpson's index, Shannon Weiner index, or index of dominance (Odum 1971). Consideration of these various indices is important as it relates to the BBS surveys. It deserves detailed attention in a separate paper. At this time only the total number of species and index of dominance will be used.

There was a significant difference in the total number of species counted in each region, varying from 74 in Region 4S of southwest Minnesota to 126 in Region 1E in northwest Minnesota. Species diversity was greatest across the forested regions of northern Minnesota and least in the agricultural monocultures of southwest Minnesota. The total number of birds per hundred miles, however, was lowest in northeast Minnesota and highest in southern Minnesota and in the metropolitan area. This is perhaps because the northeast has greater habitat structure, but lower soil productivity. The southwest has greater soil productivity but less habitat structure.

It should be emphasized that the number of species recorded in each region is an **incomplete** list of breeding species for that region for the five reasons discussed in the section on "Relative Abundance and Distribution." Current routes in Region 4S, for example, failed to record many water birds which are present in that region. These totals should, therefore, be regarded as an index to species diversity rather than the total number of breeding species in the region. Figure 3 por-

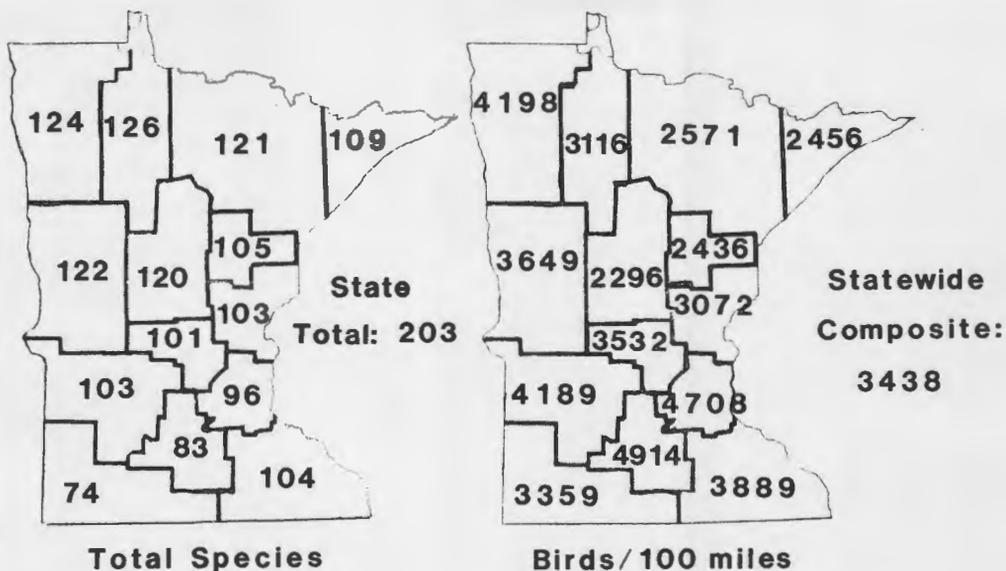


Figure 3. Number of species counted in each region and number of individuals counted per hundred miles in each region on BBS surveys, 1975-1979.

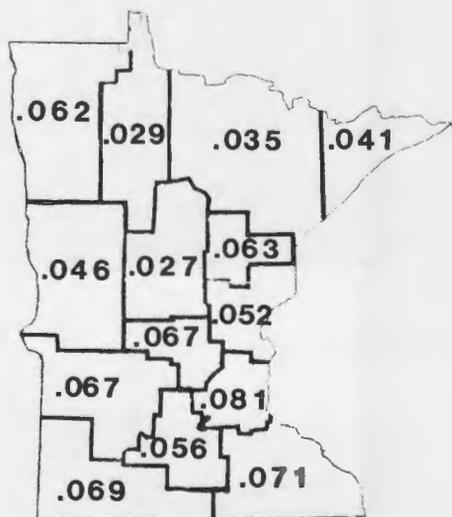


Figure 4. Index of Dominance (c) values for analysis of diversity of Minnesota's avifauna in 14 regions, 1975-1979. Higher values indicate greater dominance by a few species. Lower values indicate greater balance of numbers among species.

trays the total number of species and number of birds per 100 miles by region. These results can also be reviewed in Appendix 2 where the results are also broken down by bird category: introduced pest, native non-game, introduced game, and native game.

The results of the BBS also allow an examination of the species structure of the bird communities in the various regions of the state. One characteristic is the extent to which a few species dominate the avian community. For example, in Region 6, 49.9 percent of all birds counted were red-winged blackbirds, grackles, starlings, and house sparrows. In contrast, in Region 3N the four most abundant species were the red-eyed vireo, red-winged blackbird, common yellowthroat, and common crow. They comprised only 22.1 percent of all birds counted.

A simple index (c) for dominance is given by Odum (1971). The equation is:

$$c = \frac{1}{M} \left( \frac{\sum ni}{N} \right)^2$$

where ni = number of birds of each species counted in each region and N = total number of all birds counted in each region. Figure 4 portrays the index of dominance values for each region. The highest value, 0.081, was in Region 6, the metropolitan region. This high value reflects the dominance by several species. North central and northeast Minnesota were characterized by low species dominance values.

#### Regions in Which Selected Species are Most Abundant

One factor that is apparent from the maps in Appendix I is the region in which a species is most abundant. This has been summarized in Table 6 by region. Some species were deleted from this list when it was apparent that the sample size was too small to distinguish which region had the highest level. Region 2S had only 4 species each which were most abundant,

while 33 species reached their highest level of relative abundance in region 2E. Species identified in Table 4 as not being effectively counted by the BBS are not included here.

Table 6. List of regions where selected breeding birds reach their highest level of relative abundance in Minnesota.

#### 1N

Canada goose  
 Ring-necked duck (tie 3N)  
 Red-tailed hawk (tie 3N, 5)  
 Marsh hawk  
 Sandhill crane  
 Killdeer  
 Marbled godwit  
 Wilson's phalarope  
 Franklin's gull  
 Black-billed cuckoo  
 Short-eared owl  
 Eastern kingbird  
 Bank swallow  
 Cliff swallow  
 Black-billed magpie  
 Warbling vireo  
 Bobolink  
 American goldfinch  
 Savannah sparrow  
 Sharp-tailed sparrow  
 Lark sparrow  
 Clay-colored sparrow

#### 1S

Pied-billed grebe  
 Double-crested cormorant  
 Gadwall  
 Pintail  
 Green-winged teal  
 American wigeon  
 Northern shoveler  
 Redhead  
 Canvasback  
 Ruddy duck  
 Sora  
 Yellow-billed cuckoo  
 Western kingbird  
 Purple martin  
 Yellow-headed blackbird  
 Brewer's blackbird

**1E**

White pelican  
 American bittern  
 Lesser scaup  
 Turkey vulture (tie 5)  
 Common snipe  
 Ring-billed gull  
 Black tern  
 Eastern phoebe  
 Least flycatcher  
 Tree swallow  
 Wood thrush  
 Cedar waxwing  
 Yellow warbler (tie 3E)  
 Scarlet tanager  
 Rose-breasted grosbeak  
 LeConte's sparrow

**2S**

Broad-winged hawk  
 Pileated woodpecker  
 Connecticut warbler (tie 2E)  
 Eastern meadowlark

**2E**

Common loon  
 Red-breasted merganser  
 Herring gull  
 Yellow-bellied sapsucker  
 Downy woodpecker  
 Yellow-bellied flycatcher  
 Gray jay  
 Common raven  
 Red-breasted nuthatch  
 Winter wren  
 Hermit thrush  
 Swainson's thrush  
 Golden-crowned kinglet  
 Ruby-crowned kinglet  
 Solitary vireo (tie 2W)  
 Red-eyed vireo  
 Philadelphia vireo  
 Black-and-white warbler  
 Nashville warbler  
 Northern parula  
 Magnolia warbler  
 Black-throated blue warbler  
 Yellow-rumped warbler  
 Black-throated green warbler  
 Chestnut-sided warbler  
 Northern waterthrush  
 Connecticut warbler (tie 2S)

Mourning warbler  
 Canada warbler  
 American redstart  
 Pine siskin  
 Dark-eyed junco  
 White-throated sparrow

**2W**

Belted kingfisher (tie 3E, 5)  
 Hairy woodpecker (tie 3N)  
 Veery  
 Solitary vireo (tie 2E)  
 Cape May warbler  
 Blackburnian warbler  
 Bay-breasted warbler  
 Ovenbird  
 Evening grosbeak  
 Purple finch  
 Lincoln's sparrow  
 Swamp sparrow  
 Song sparrow

**3E**

Blue-winged teal  
 Spotted sandpiper (tie 3W)  
 Belted kingfisher (tie 2W, 5)  
 Blue jay  
 Common crow  
 Short-billed marsh wren  
 Gray catbird  
 Eastern bluebird  
 Yellow-throated vireo (tie 3W)  
 Yellow warbler (tie 1E)  
 Common yellowthroat

**3W**

Great blue heron  
 Northern green heron  
 Spotted sandpiper (tie 3E)  
 Chimney swift  
 Yellow-throated vireo (tie 3E)  
 Long-billed marsh wren (tie 4W)  
 Northern oriole

**3N**

Ring-necked duck (tie 1N)  
 Red-tailed hawk (tie 1N, 5)  
 Yellow rail  
 Hairy woodpecker (tie 2W)  
 Great crested flycatcher  
 Alder flycatcher  
 Eastern wood pewee  
 Black-capped chickadee

Golden-winged warbler  
Pine warbler  
Rufous-sided towhee  
Chipping sparrow

#### 4E

American coot  
Rock dove  
Common flicker  
Red-headed woodpecker  
Horned lark  
Barn swallow  
House sparrow  
Western meadowlark  
Brown-headed cowbird  
Vesper sparrow

#### 4W

Great egret  
Gray partridge  
Mourning dove  
Long-billed marsh wren (tie 3W)  
Brown thrasher

#### 4S

Upland sandpiper  
Willow flycatcher  
Orchard oriole  
Blue grosbeak  
Dickcissel  
Grasshopper sparrow

#### 5

Turkey vulture (tie 1E)  
Red-tailed hawk (tie 1N, 3N)  
Red-shouldered hawk  
Bobwhite  
Belted kingfisher (tie 2W, 3E)  
Red-bellied woodpecker  
Rough-winged swallow  
White-breasted nuthatch  
House wren  
Blue-gray gnatcatcher  
Bell's vireo  
Blue-winged warbler  
Cardinal  
Indigo bunting  
Field sparrow

#### 6

Black-crowned night heron  
Mallard

Wood duck  
American kestrel  
Ring-necked pheasant  
American robin  
Starling  
Red-winged blackbird  
Common grackle

#### Miscellaneous and Accidental Sightings

Some sightings on the BBS require additional interpretation. These sightings fell into four categories: (A) species not currently known to breed in Minnesota, (B) transient, late migrant, or nonbreeding individuals observed outside their regular breeding range, (C) shorebirds in migrant status, and (D) species whose identification is questionable. Bob Janssen, Kim Eckert, and Janet Green were consulted regarding the disposition of these sightings. Table 7 is a summary of these miscellaneous and accidental sightings and the disposition of each. The miscellaneous and accidental sightings in Table 6 are not included in the maps in Appendix I.

#### CONCLUSIONS

The U.S. Fish and Wildlife Service Breeding Bird Survey is an effective technique for assessing population trends and distribution of many species of Minnesota birds. These data can also be useful for drawing general conclusions about apparent abundance among species and species diversity of different regions if the limitations of the survey are recognized. This analysis will be repeated at five year intervals. Older BBS records from 1967 to 1974 will also be utilized as time allows.

Information from this report has been utilized during the preparation of a new publication of "The Uncommon Ones (Moyle 1980)." This publication discusses threatened and endangered species in Minnesota as well as priority species.

Table 7. Summary of miscellaneous and accidental sightings for BBS routes, 1975-1979.

Species	Number of Individuals	Region	Route	County	Date	Category	Disposition of Sighting
Canada goose	18	2S	22	Carlton	6-27-79	B	Accepted
Green-winged teal	2	2E	31	Cook	6-06-76	B	Accepted
Rough-legged hawk	1	1N	50	Marshall	6-11-76	A	Submitted to MOU for verification
Greater yellowlegs	2	1N	44	Red Lake	7-01-79	C	Accepted
Lesser yellowlegs	1	1N	44	Red Lake	7-01-79	C	Accepted
Ring-billed gull	2	4W	21	Swift	6-18-78	B	Accepted
Caspian tern	1	2S	24	Aitkin	6-25-79	A	Accepted
Band-tailed pigeon	1	3W	18	Stearns	6-23-75	A	Verified by MOU
Willow flycatcher	3	2W	37	Itasca	6-16-79	D	Probably alder f.c. Placed in <i>Empidonax</i> spp. category
Alder flycatcher	1	4W	17	Meeker	6-20-76	D	Probably willow
Alder flycatcher	1	3W	18	Stearns	6-08-78	D	flycatchers
Alder flycatcher	2	3W	18	Stearns	6-05-79	D	Placed in <i>Empidonax</i> spp. category
Alder flycatcher	2	5	1	Houston	6-14-75	D	spp. category
Philadelphia vireo	1	4W	20	Swift	6-10-79	B	Accepted
Cerulean warbler	1	1E	40	Beltrami	7-07-79	D	Changed to Unident. warbler
Rusty blackbird	36	1E	47	Lake of Woods	6-07-78	D	Changed to Brewer's blackbird
Tree sparrow	1	1E	47	Lake of Woods	7-05-79	D	Changed to Unident. sparrow
Purple finch	1	4E	10	Nicollet	6-21-78	B	Accepted
Purple finch	1	4S	6	Rock	6-26-78	B	Accepted

#### Categories

- A: Species not known to currently breed in Minnesota.
- B: Transient, late migrant, or nonbreeding individuals observed outside their regular breeding range.
- C: Shorebirds in migrant status.
- D: Species whose identification is questionable.

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## Appendix I. Distribution and Relative

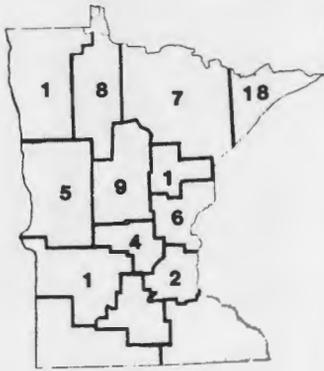
### Abundance of Breeding Birds, 1975 - 1979.

(pages 25 - 49)

All numbers refer to "Birds

Counted per 100 Miles of Route"

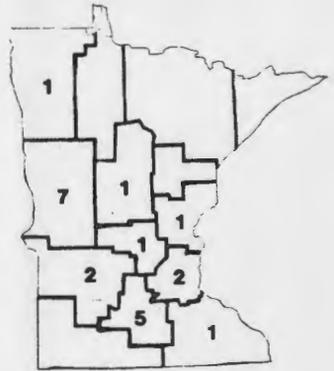
# NONGAME BIRDS



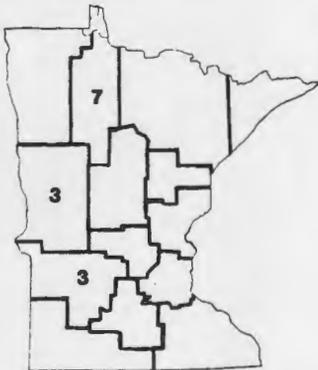
**Common Loon**



**Western Grebe**



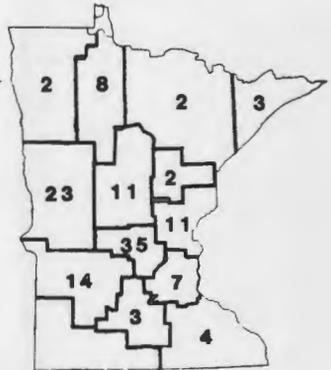
**Pied-billed Grebe**



**White Pelican**



**Double-crested Cormorant**



**Great Blue Heron**



**Northern Green Heron**



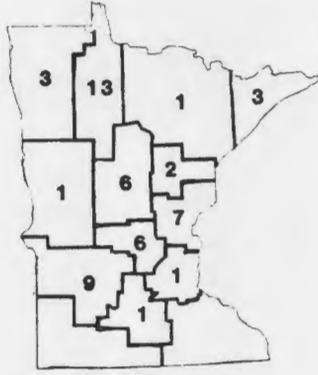
**Great Egret**



**Black-crowned Night Heron**



**Least Bittern**



**American Bittern**



**Turkey Vulture**



**Sharp-shinned Hawk**



**Cooper's Hawk**



**Red-tailed Hawk**



**Red-shouldered Hawk**



**Broad-winged Hawk**



**Swainson's Hawk**



**Bald Eagle**



**Marsh Hawk**



**Osprey**



**American Kestrel**



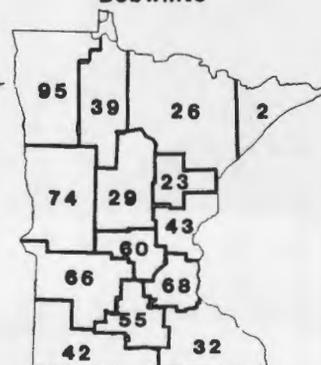
**Bobwhite**



**Sandhill Crane**



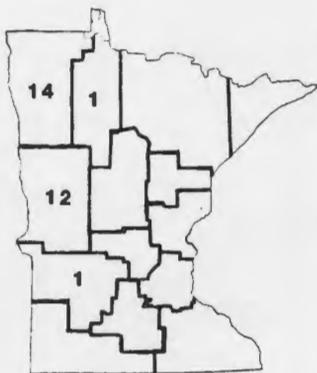
**Yellow Rail**



**Killdeer**



**Spotted Sandpiper**



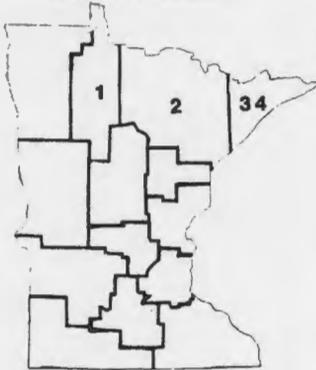
**Marbled Godwit**



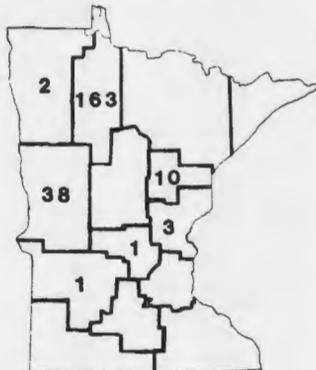
**Upland Sandpiper**



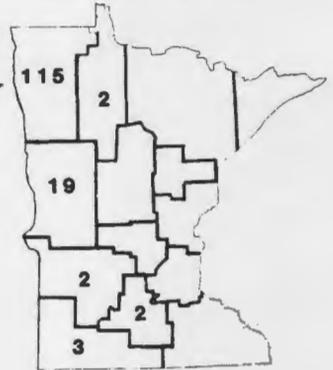
**Wilson's Phalarope**



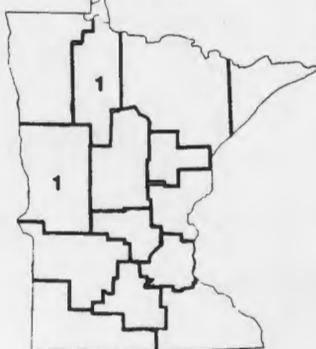
**Herring Gull**



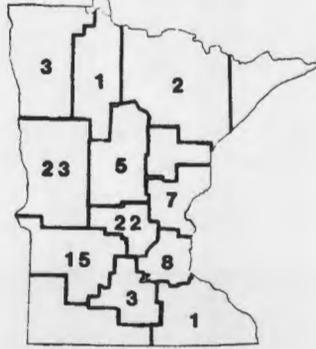
**Ring-billed Gull**



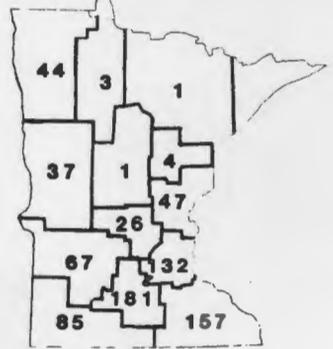
**Franklin's Gull**



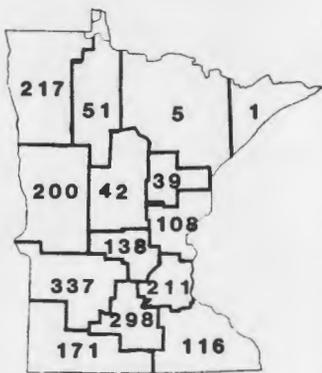
**Forster's Tern**



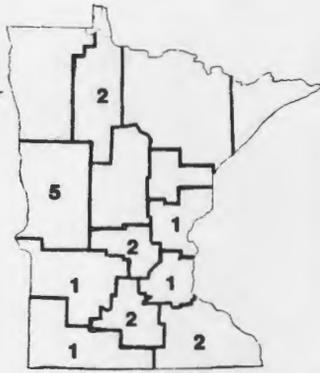
**Black Tern**



**Rock Dove**



**Mourning Dove**



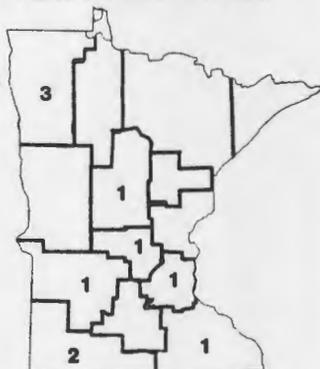
**Yellow-billed Cuckoo**



**Black-billed Cuckoo**



**Screech Owl**



**Great Horned Owl**



**Barred Owl**



**Short-eared Owl**



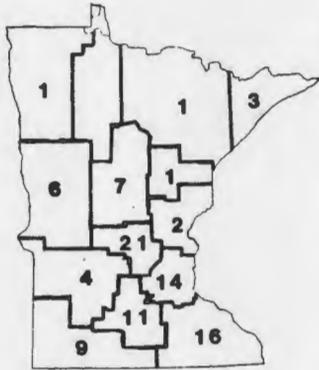
**Saw-whet Owl**



**Whip-poor-will**



**Common Nighthawk**



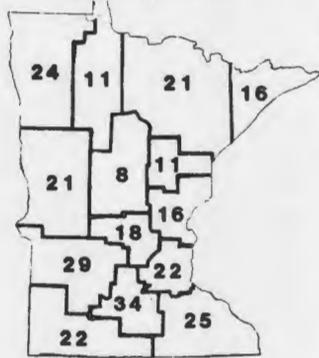
**Chimney Swift**



**Ruby-throated Hummingbird**



**Belted Kingfisher**



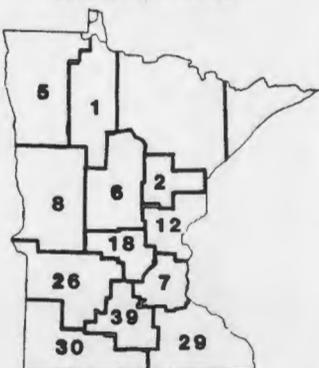
**Common Flicker**



**Pileated Woodpecker**



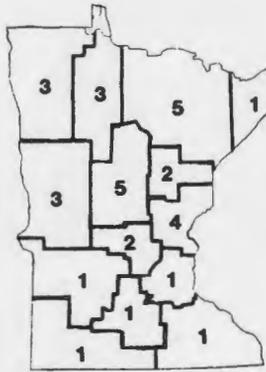
**Red-bellied Woodpecker**



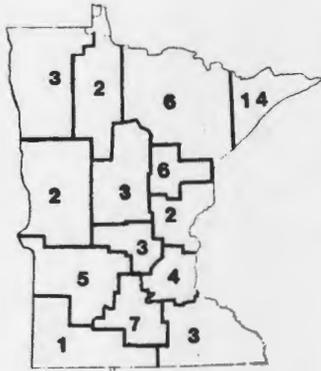
**Red-headed Woodpecker**



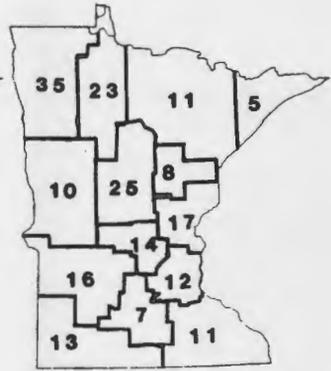
**Yellow-bellied Sapsucker**



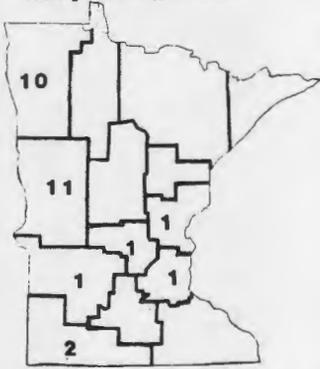
**Hairy Woodpecker**



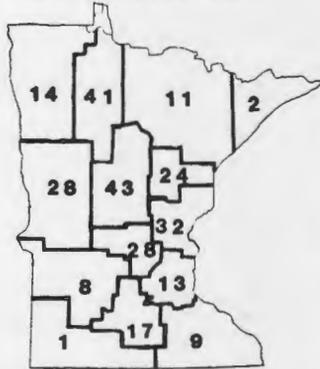
**Downy Woodpecker**



**Eastern Kingbird**



**Western Kingbird**



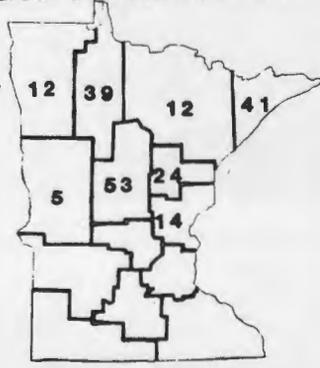
**Great Crested Flycatcher**



**Eastern Phoebe**



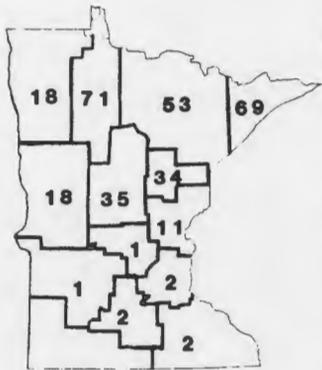
**Yellow-bellied Flycatcher**



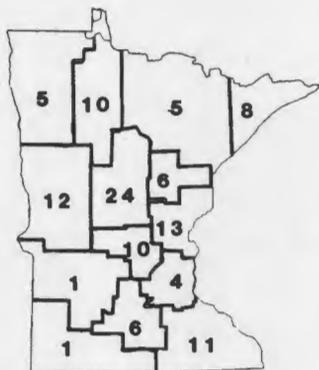
**Alder Flycatcher**



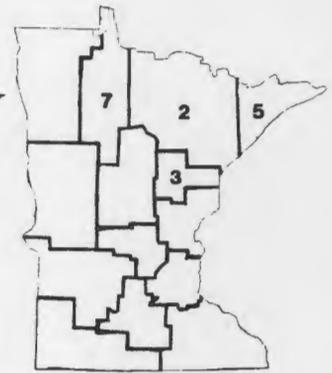
**Willow Flycatcher**



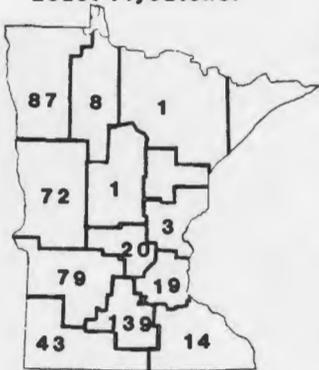
**Least Flycatcher**



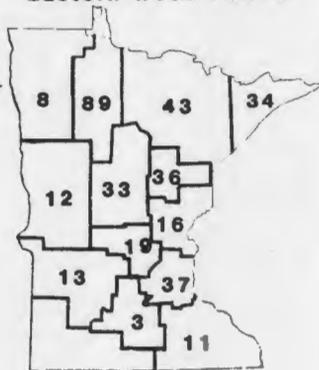
**Eastern Wood Pewee**



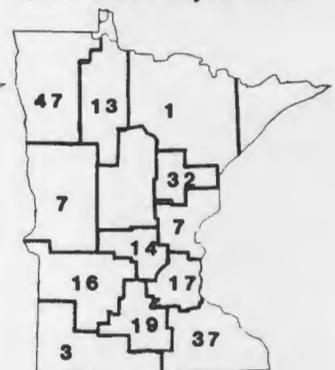
**Olive-sided Flycatcher**



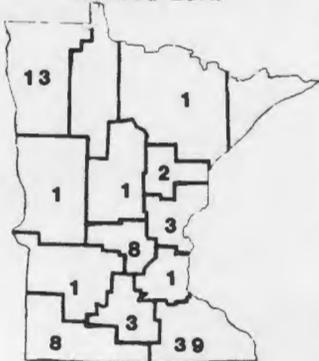
**Horned Lark**



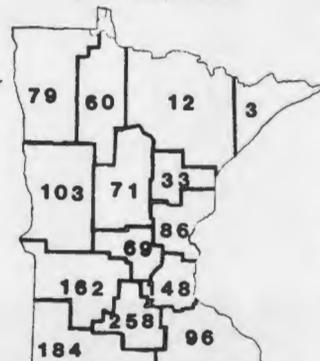
**Tree Swallow**



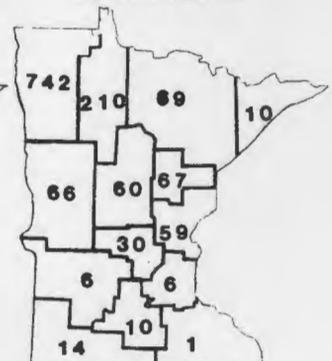
**Bank Swallow**



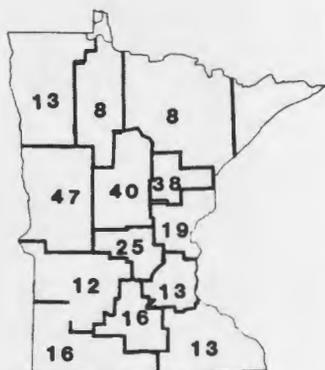
**Rough-winged Swallow**



**Barn Swallow**



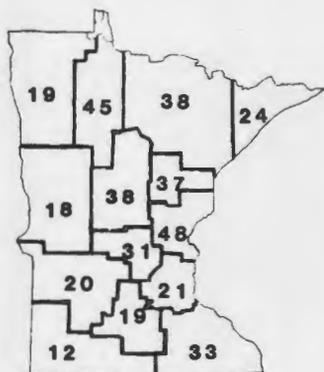
**Cliff Swallow**



**Purple Martin**



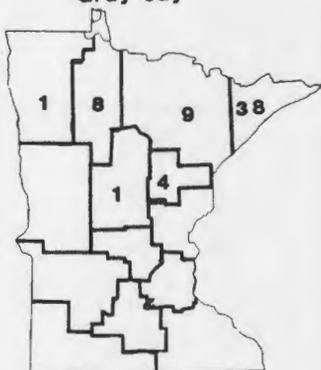
**Gray Jay**



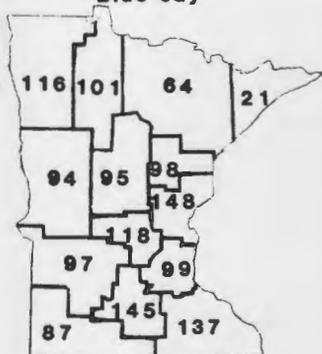
**Blue Jay**



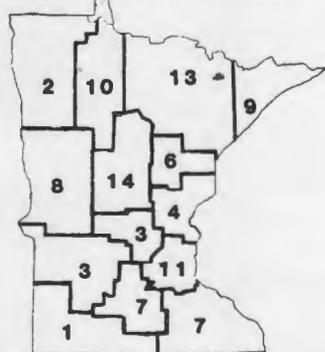
**Black-billed Magpie**



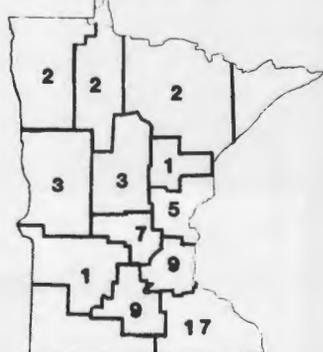
**Common Raven**



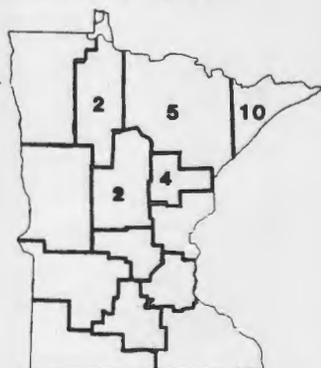
**Common Crow**



**Black-capped Chickadee**



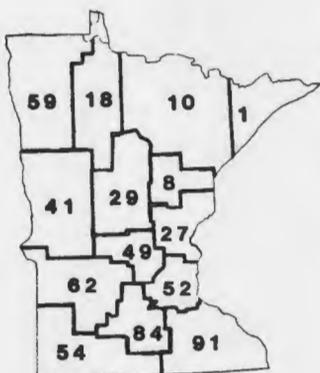
**White-breasted Nuthatch**



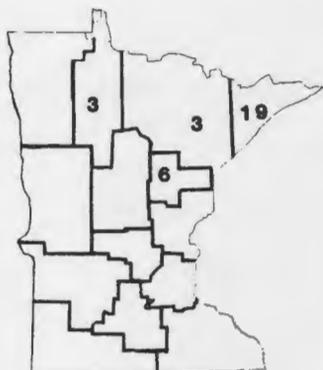
**Red-breasted Nuthatch**



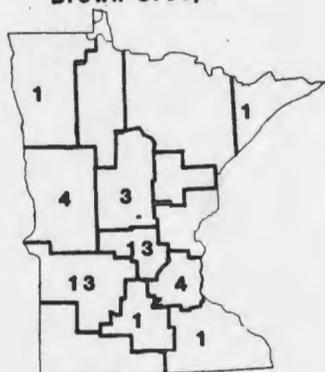
**Brown Creeper**



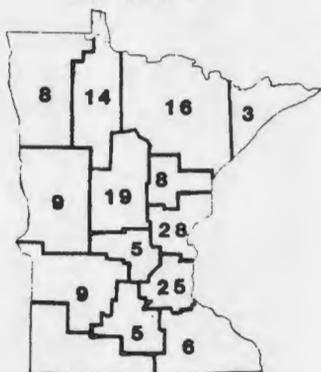
**House Wren**



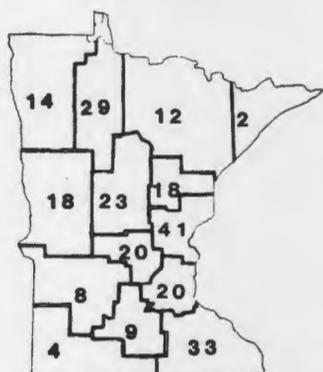
**Winter Wren**



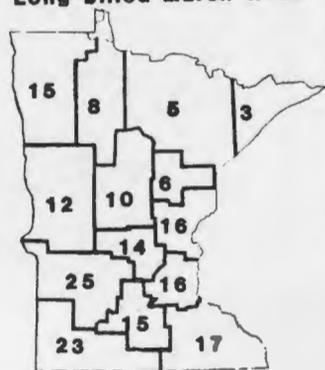
**Long-billed Marsh Wren**



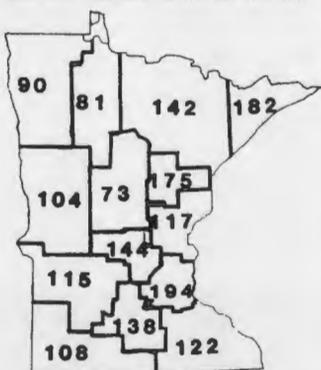
**Short-billed Marsh Wren**



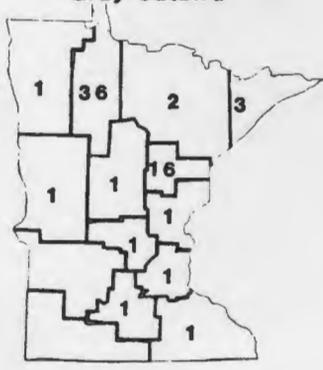
**Gray Catbird**



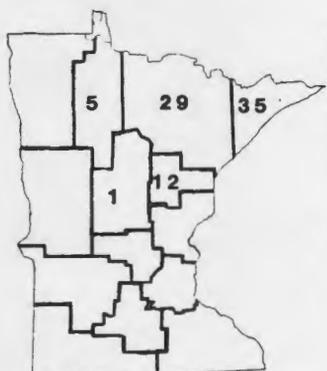
**Brown Thrasher**



**American Robin**



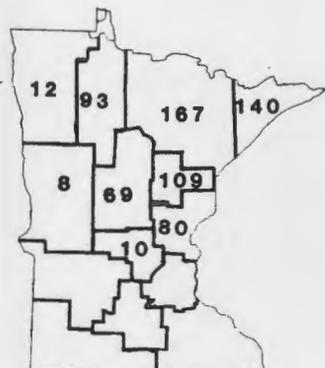
**Wood Thrush**



**Hermit Thrush**



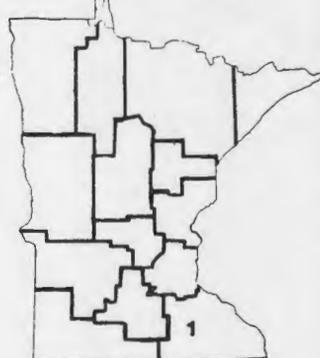
**Swainson's Thrush**



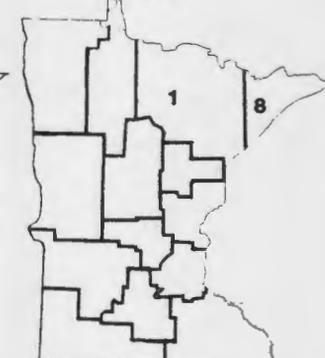
**Veery**



**Eastern Bluebird**



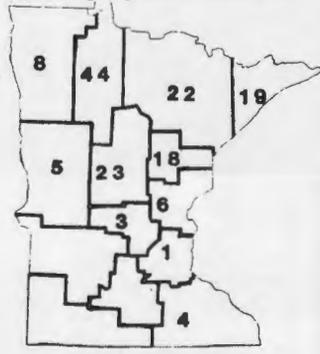
**Blue-gray Gnatcatcher**



**Golden-crowned Kinglet**



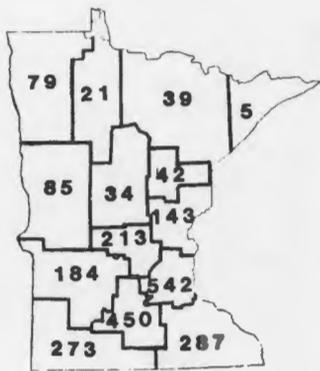
**Ruby-crowned Kinglet**



**Cedar Waxwing**



**Loggerhead Shrike**



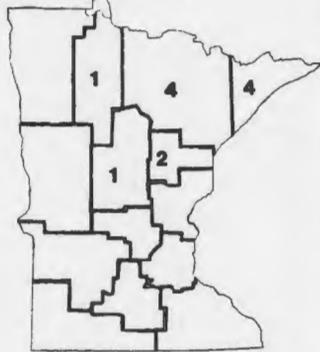
**Starling**



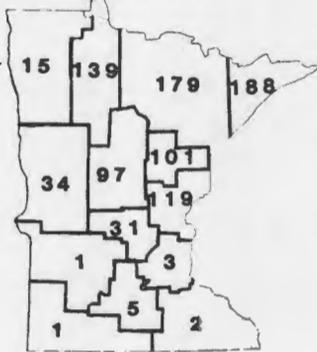
**Bell's Vireo**



**Yellow-throated Vireo**



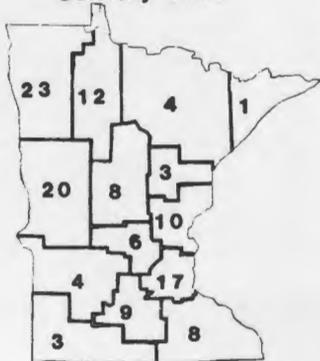
**Solitary Vireo**



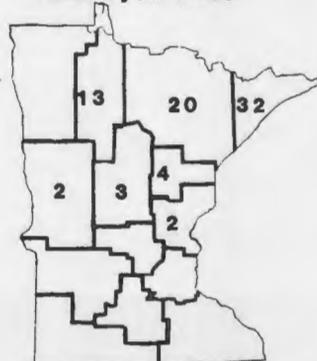
**Red-eyed Vireo**



**Philadelphia Vireo**



**Warbling Vireo**



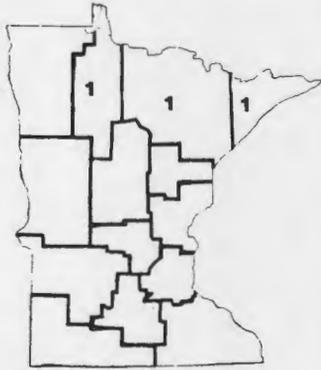
**Black-and-white Warbler**



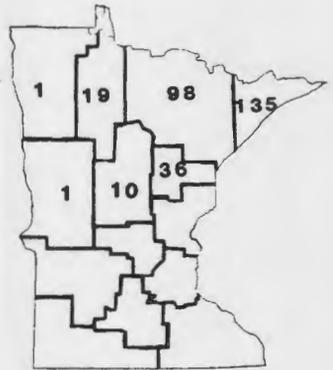
**Golden-winged Warbler**



**Blue-winged Warbler**



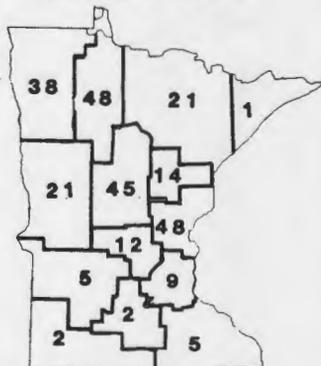
**Tennessee Warbler**



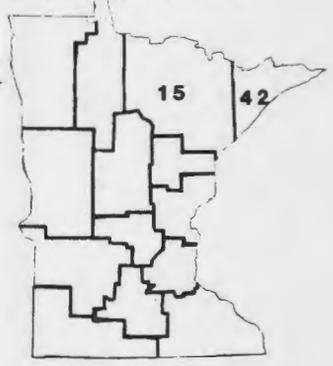
**Nashville Warbler**



**Northern Parula**



**Yellow Warbler**



**Magnolia Warbler**



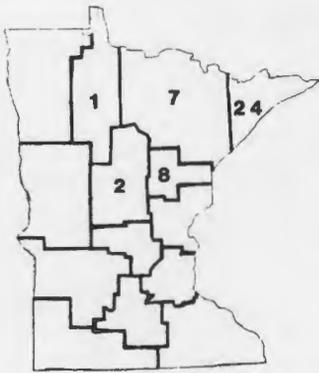
**Cape May Warbler**



**Black-throated Blue Warbler**



**Yellow-rumped Warbler**



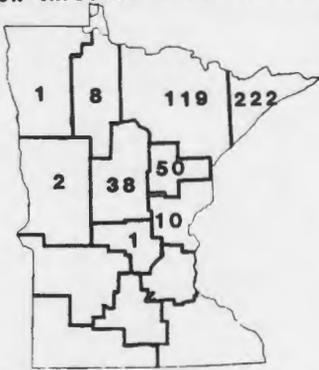
**Black-throated Green Warbler**



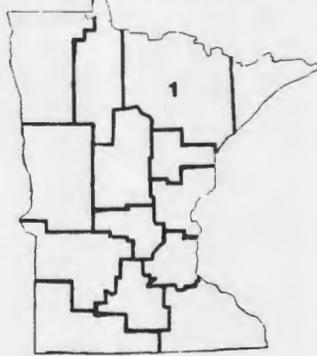
**Cerulean Warbler**



**Blackburnian Warbler**



**Chestnut-sided Warbler**



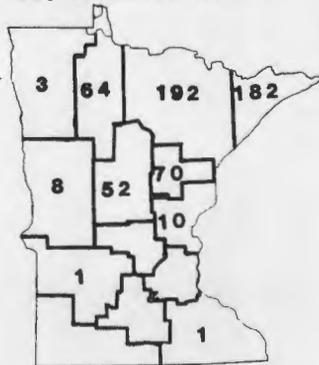
**Bay-breasted Warbler**



**Pine Warbler**



**Palm Warbler**

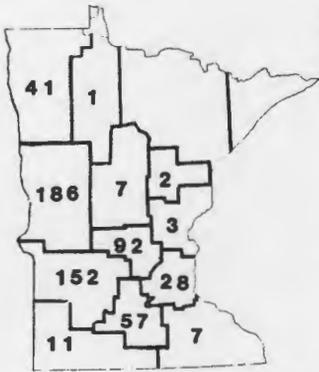


**Ovenbird**



**Northern Waterthrush**

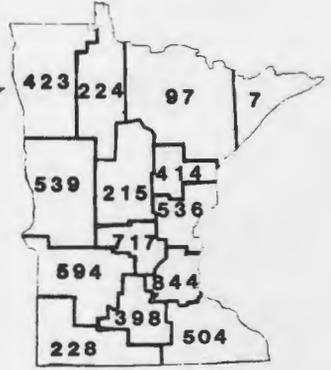




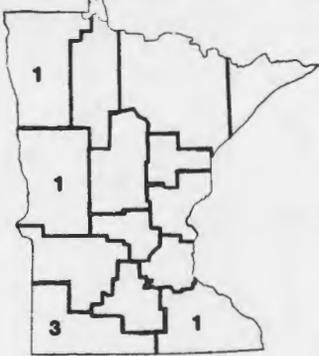
**Yellow-headed Blackbird**



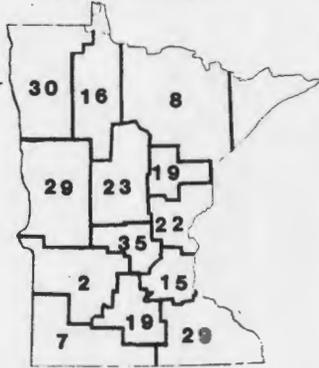
**Rusty Blackbird**



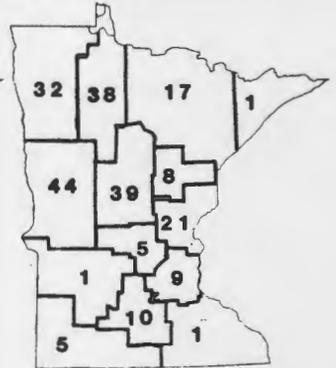
**Red-winged Blackbird**



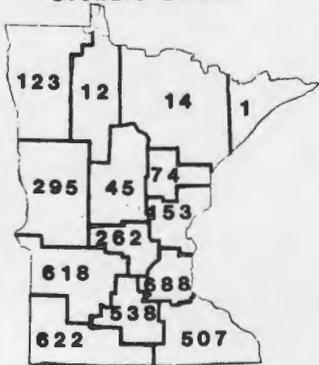
**Orchard Oriole**



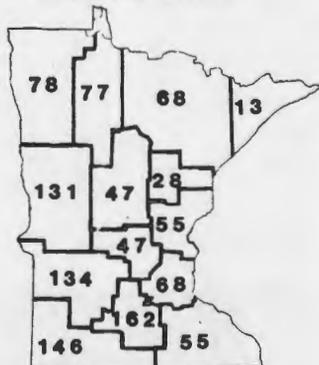
**Northern Oriole**



**Brewer's Blackbird**



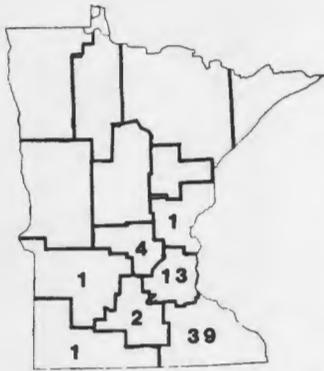
**Common Grackle**



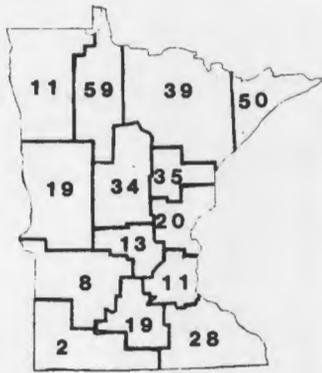
**Brown-headed Cowbird**



**Scarlet Tanager**



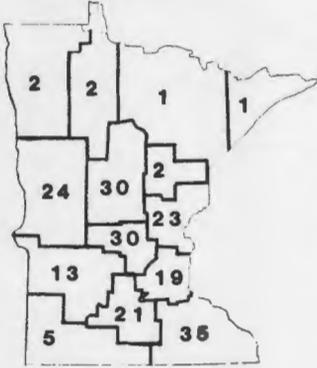
**Cardinal**



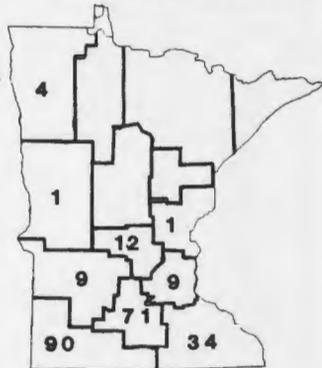
**Rose-breasted Grosbeak**



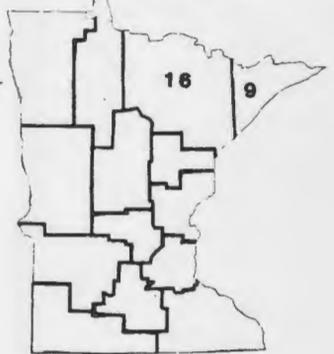
**Blue Grosbeak**



**Indigo Bunting**



**Dickcissel**



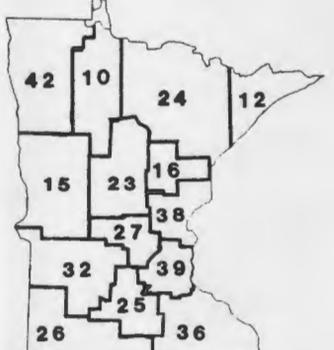
**Evening Grosbeak**



**Purple Finch**



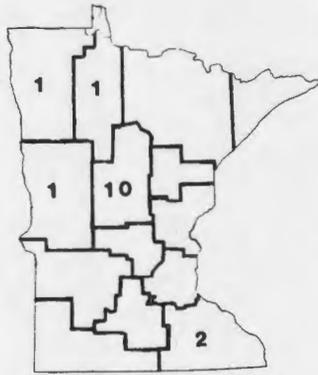
**Pine Siskin**



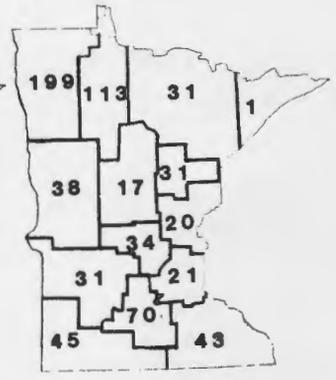
**American Goldfinch**



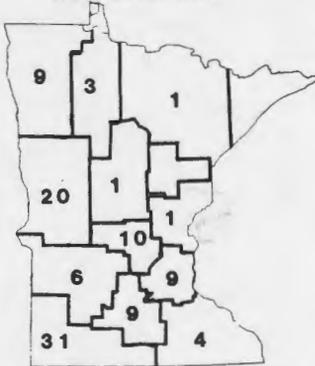
**Red Crossbill**



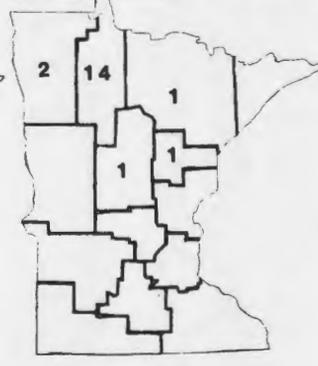
**Rufous-sided Towhee**



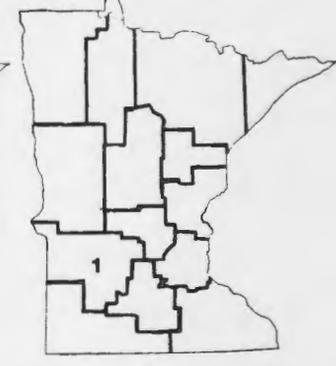
**Savannah Sparrow**



**Grasshopper Sparrow**



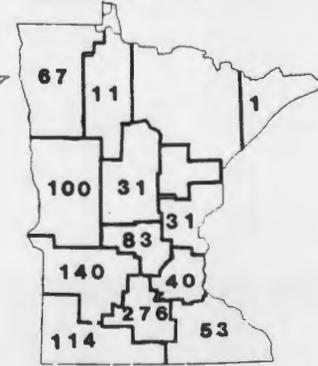
**LeConte's Sparrow**



**Henslow's Sparrow**



**Sharp-tailed Sparrow**



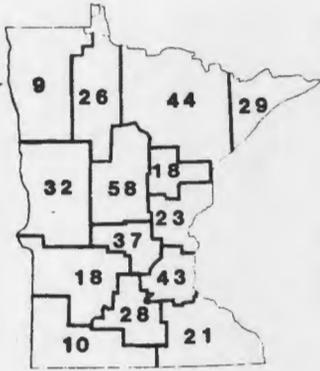
**Vesper Sparrow**



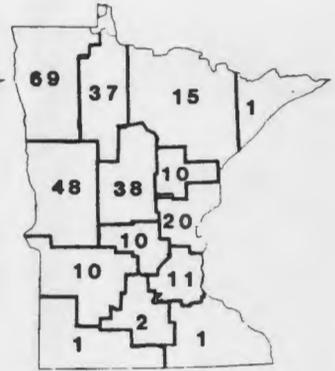
**Lark Sparrow**



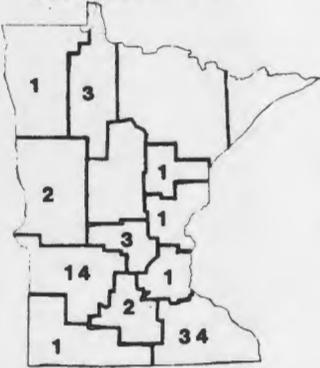
**Dark-eyed Junco**



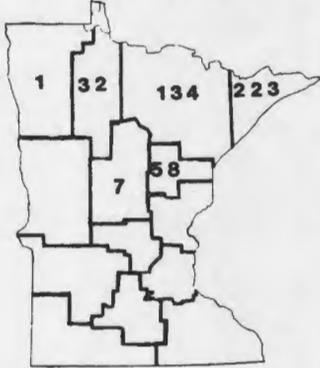
**Chipping Sparrow**



**Clay-colored Sparrow**



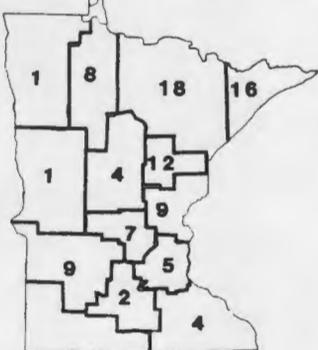
**Field Sparrow**



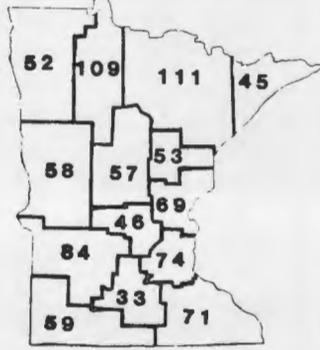
**White-throated Sparrow**



**Lincoln's Sparrow**

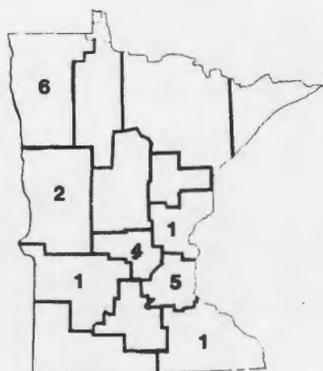


**Swamp Sparrow**

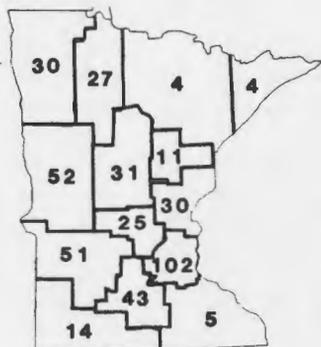


**Song Sparrow**

## GAME BIRDS



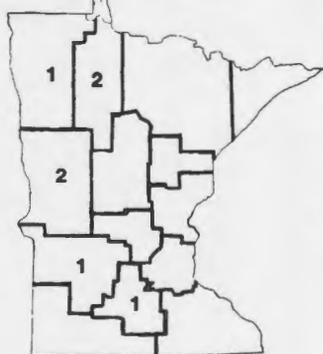
**Canada Goose**



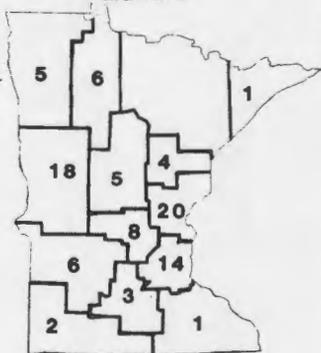
**Mallard**



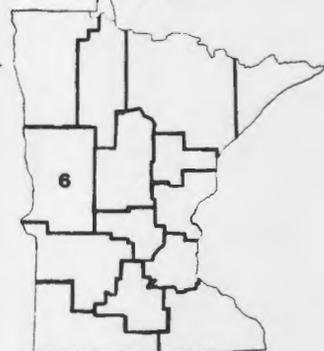
**Black Duck**



**Gadwall**



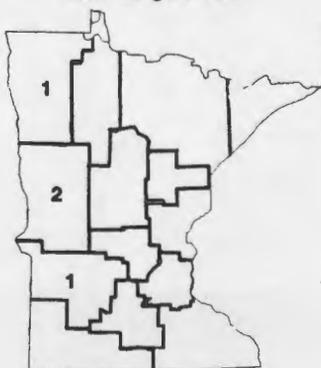
**Blue-winged Teal**



**American Wigeon**



**Pintail**



**Green-winged Teal**



**Northern Shoveler**



**Wood Duck**



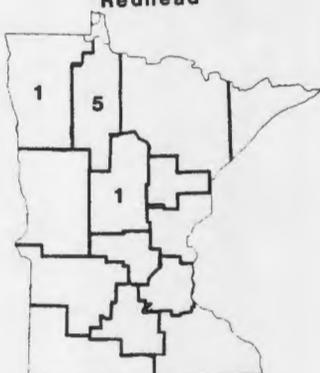
**Redhead**



**Ring-necked Duck**



**Canvasback**



**Lesser Scaup**



**Common Goldeneye**



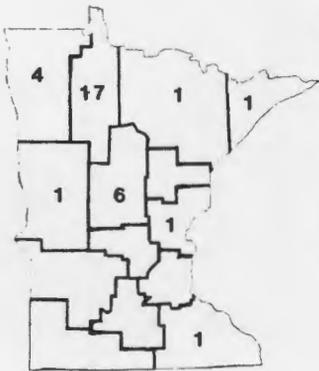
**Ruddy Duck**



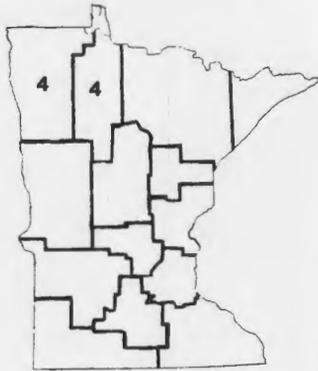
**Hooded Merganser**



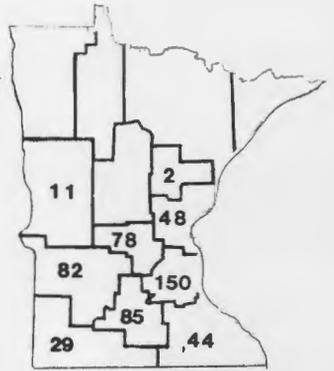
**Red-breasted Merganser**



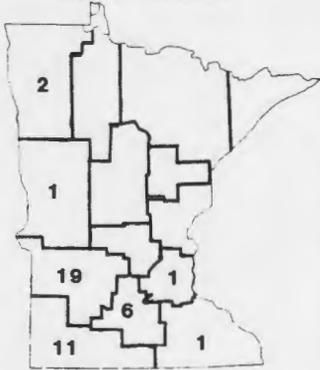
**Ruffed Grouse**



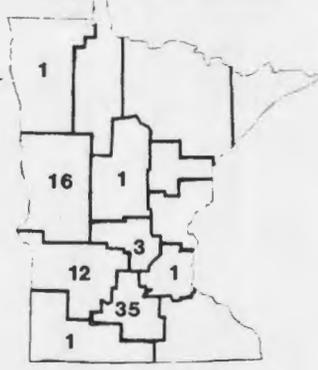
**Sharp-tailed Grouse**



**Ring-necked Pheasant**



**Gray Partridge**



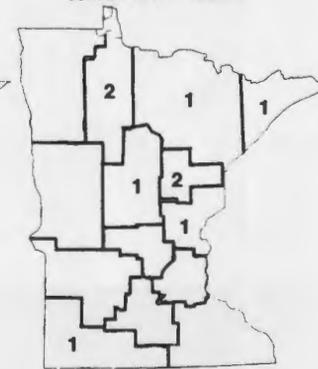
**American Coot**



**Sora**



**Virginia Rail**



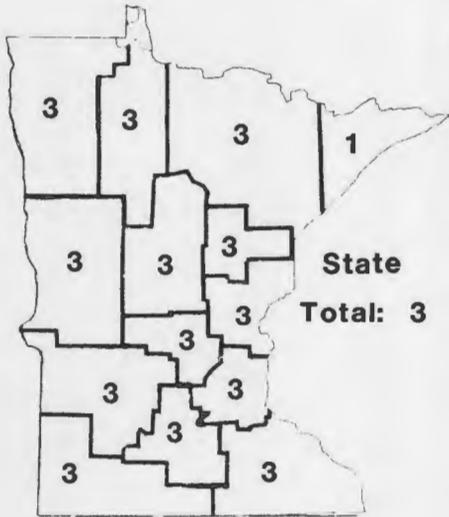
**American Woodcock**



**Common Snipe**

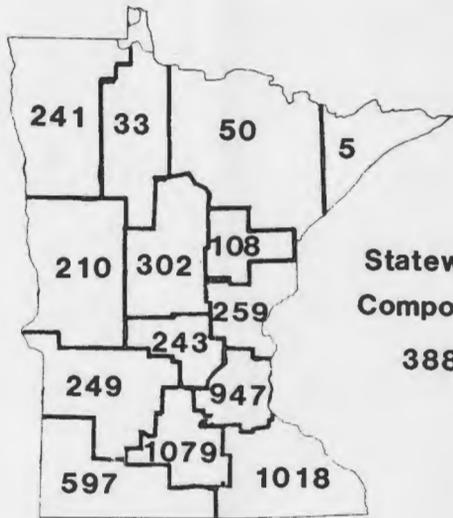
## Appendix II. Statewide

summaries for Minnesota breeding birds, 1975-79.



**State  
Total: 3**

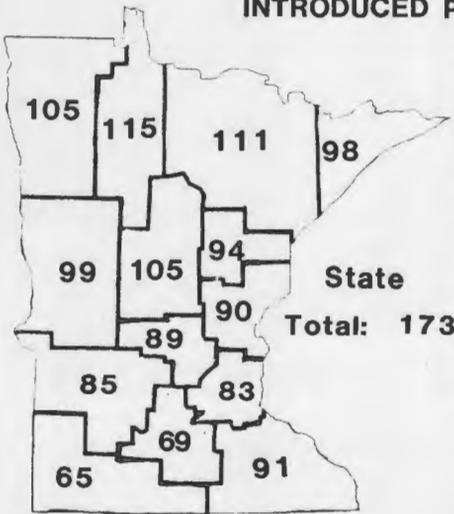
**Total Species**



**Statewide  
Composite:  
388**

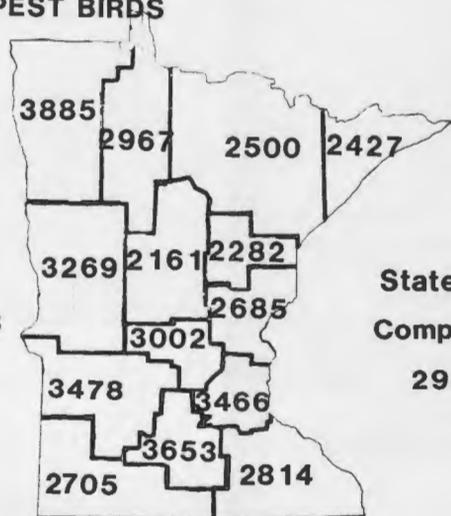
**Birds/100 miles**

### INTRODUCED PEST BIRDS



**State  
Total: 173**

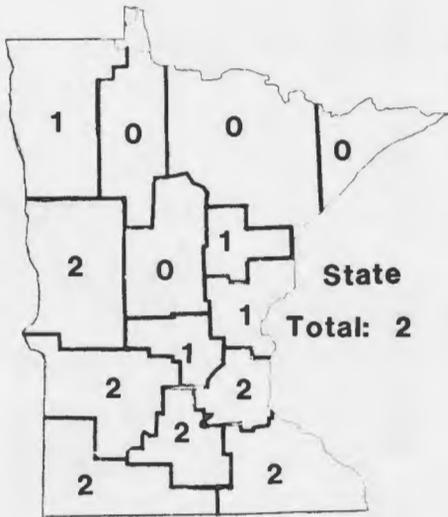
**Total Species**



**Statewide  
Composite:  
2950**

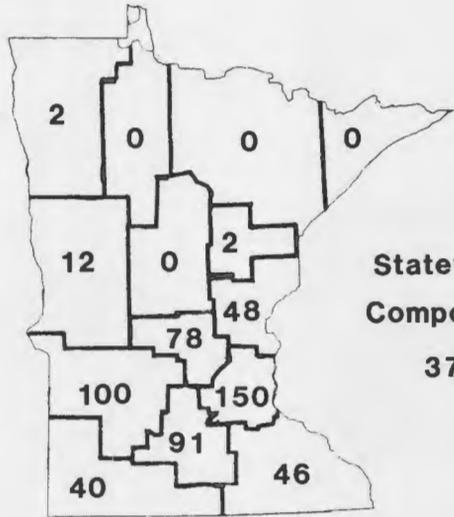
**Birds/100 miles**

### NATIVE NONGAME BIRDS



**Total Species**

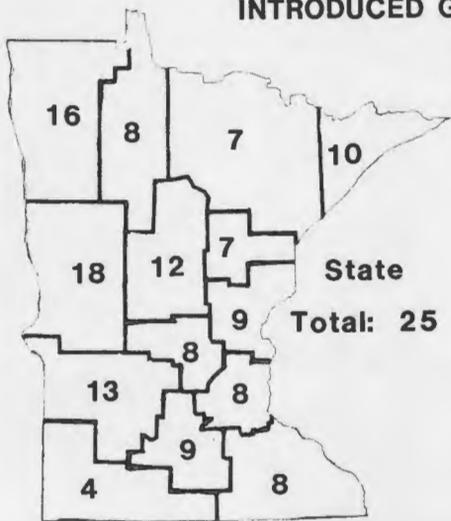
**State  
Total: 2**



**Birds/100 miles**

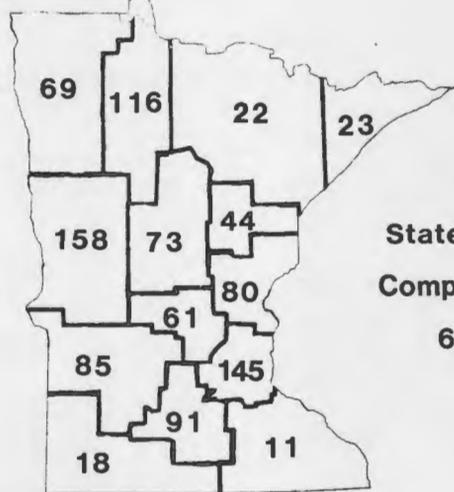
**Statewide  
Composite:  
37**

**INTRODUCED GAME BIRDS**



**Total Species**

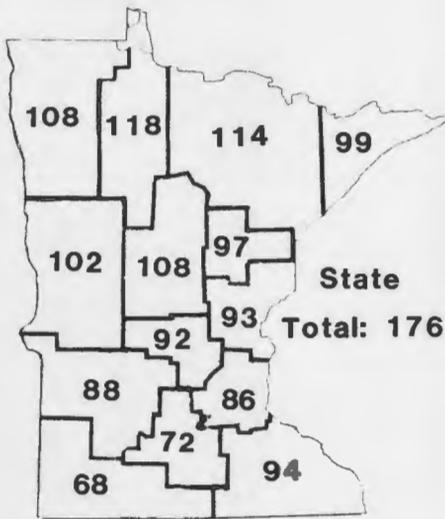
**State  
Total: 25**



**Birds/100 miles**

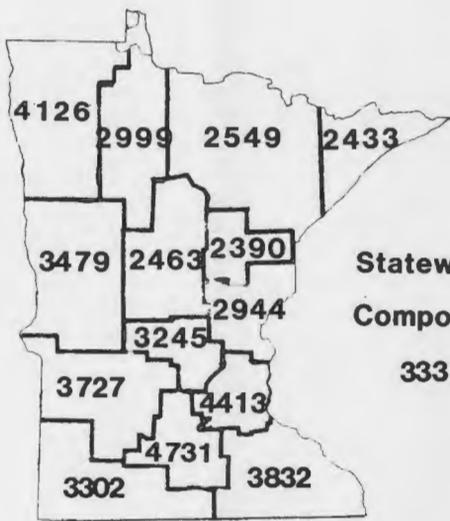
**Statewide  
Composite:  
63**

**NATIVE GAME BIRDS**



**Total Species**

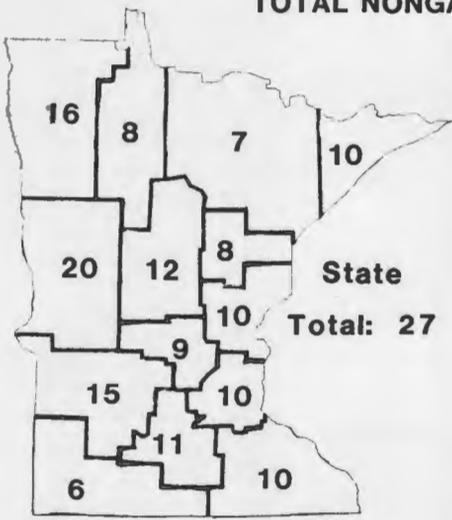
**State  
Total: 176**



**Birds/100 miles**

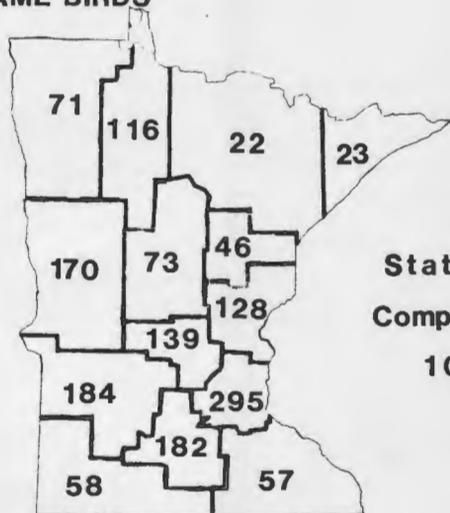
**Statewide  
Composite:  
3338**

**TOTAL NONGAME BIRDS**



**Total Species**

**State  
Total: 27**



**Birds/100 miles**

**Statewide  
Composite:  
100**

**TOTAL GAME BIRDS**

# BOOK REVIEWS

**The Great Gray Owl. Phantom of the Northern Forest.** By Robert W. Nero. Photographs by Robert R. Taylor. Smithsonian Institution Press, Washington, D.C. Published Nov. 17, 1980. 168 pages. \$17.50.

This beautiful book tells about Bob Nero's twelve year obsession with the Great Gray Owl in Manitoba and northwestern Minnesota. As recently as 1970, the species was considered very rare in Manitoba and its breeding behavior practically unknown. Today, we know it to be a regular resident, unevenly distributed and sometimes locally common, in forested Manitoba and across much of northern Minnesota. What has changed is mostly our knowledge of the bird, rather than its abundance or distribution. Bob Nero is responsible for the change, through his own prodigious field work and through the excitement and interest he generates in others for this owl.

Largest of owls in appearance, the Great Gray Owl is in reality only slightly bigger than a Barred Owl in bone and muscle. It would be no match for a Great Horned Owl or a Snowy Owl in foot-to-foot combat. It has great fluffy body plumage, long wings and tail, and enormous asymmetrical ear openings, which help it locate rustling, gnawing mice by sound precisely enough to capture them by diving face first in full flight through snow up to two feet deep or more.

Great Gray Owls nest in stick nests built by other birds, such as hawks, ravens, and crows, and in Manitoba by Bob Nero. Suitable nests may in fact be in such short supply that their availability limits the number of owl pairs that can breed.

Birders see Great Gray Owls in winter only when they are driven by mouse scarcity to leave their remote

forests to forage on juicier prey near towns and highways. When living is easy for them in the woods we rarely know they are present, even in fairly heavily birded areas such as northern Minnesota.

Nero writes clearly about Great Gray Owl breeding activities without resorting to even one table or graph. He discusses owl conservation problems and how to catch owls for banding. Most of all, he gives us some feeling for the owl's world — how they hunt, how they court, how they fit into their wild habitat. Great Gray Owls probably have no impact on the income of loggers or farmers and only small ecological significance in their boreal forest home, but the elegance of their adaptations to life in cold and snow is an evolutionary gift for all of us. As Aldo Leopold said for Ruffed Grouse, Great Gray Owls may be an insignificant fraction of the living biomass of their forest community, yet they give it unique life and character. It is easy to understand Bob Nero's love affair with these great, solemn, trusting owls.

Robert Taylor's photographs are part of the compelling appeal of this book. The Great Gray Owl must be the photographer's ultimate bird. Huge, dramatic, rich in facial expressions, and tame; these traits are full compensation for the photographer's numb fingers and wet feet. Thirty photos are in color; these include courting birds, family groups, hunting individuals, and birds being captured for banding. Several dozen black and white photos include a remarkable sequence of an owl diving into snow, several shots of owls flying into landing nets in single-minded pursuit of a decoy mouse, and some shots of Nero baitcasting for owls with a ludi-

crous artificial mouse. Taylor's photographs show vividly the remarkable tameness and rich life history of the owls.

Minnesotans share with Canadians the same sort of special claim on Great Gray Owls that we have on Timber Wolves. Nowhere else in the United States outside of Alaska are there healthier breeding populations. We can be proud but not complacent that enough wilderness remains in our state to let these animals live along side of us. Nero's fine book tells us just how special the Great Gray Owl is.

Harrison B. Tordoff

**The Imperative Call — A Naturalist's Quest in Temperate and Tropical America**, by Alexander F. Skutch. The University Presses of Florida. 15 N.W. 15th Street, Gainesville, Fla. 32603. 331 pp., including 13 pp. Index and some black and white photos. 1980. \$20.00.

As a well known field investigator of neotropical floras and faunas, Alexander Skutch needs little introduction here. His many studies in Jamaica and middle American countries — mostly Panama, Costa Rica and Guatemala — are now considered classic, and many are available either in book form or as technical ecological papers.

Skutch considers this book . . . "primarily a book of natural history rather than an autobiography," but I consider the reverse more correct since it is exclusively comprised of anecdotes which chronologically summarize Skutch's eminent career. These are, it is only fair to say, tied eloquently to numerous, vividly detailed accounts of natural history lore.

As is the prerogative of an autobiographer, Skutch subjects us to a copious tirade of strongly opinionated philosophy. In the **Imperative Call**, we are constantly deluged with Skutch's tendency to anthropomorphize the birds, especially young birds, which he discusses. Also, his contempt for acquiring knowledge from museum study specimens, which he considers "dry and uninspiring" is well known

and certainly controversial. Yet his achievements stemming from study of only living birds in their natural environments are seldom rivaled by field researchers who employ the use of museum materials. Certain exceptions to his professed "strong aversion to taking the life of any creature . . ." are portrayed in the book but are given flimsy, if not absurd, justifications for their executions. Two such examples, for instance, involve natural predation (i.e. "pilferage,") upon nestling birds by a Black Hawk Eagle and a large colubrid snake. In the first case, Skutch promptly dispatched the offending predator, which in Skutch's terms was "an alien who arrived to disrupt a peaceful society"; and in the latter circumstance, he devotes much of a single chapter to describe how he shot his revolver twenty times at a snake devouring young oropendolas from a nesting colony. From this, we learn that "For birds, not only by their warm blood but also by their capacity for attachment to a mate and devoted service to their progeny, are so much more akin to ourselves than cold-blooded snakes which never even enter into relationships that, in ourselves at least, evoke love and loyalty, that we spontaneously feel closer to them and they seem to have a better claim to be defended by us"!! Doubtless, some of Skutch's rationalizations stem from a childhood experience in which he pointed a toy gun at a Turkey Vulture and "at that moment, one of the strangest apparitions I have ever seen ran down the highway: a bareheaded, red faced man clad in a long black robe. Pausing between the stone pillars of the entrance gate, he stared at me until I turned and ran homeward in terror, never stopping until I reached the house . . . to my childish imagination, this extraordinary man, possibly an escaped lunatic, was the Law in person come to chastize my transgression"!! And a final opinion, vintage Skutch, concerns the damnation of dogs as pets for "their interests diverge too widely from my own. The

dog, despite some "amiable" traits, possesses one defect that makes him intolerable to me as a companion in field and woodlands: he will never willingly leave any other creature in peace but must constantly be barking at unoffending people, frightening the horses, worrying the cows, chasing the squirrels up trees, making the lizards scuttle into hiding, putting all the ground birds to flight. Until advancing age shortens his wind and stiffens his limbs, he cannot easily be taught gentlemanly behavior out of doors, however well bred he may be in the

house. I know of no other animal that is half so great a ruffian in the open. The dog is a friend of man, but like many of the companions of our childhood, he is a friend we may outgrow."

If the reader concentrates on the pleasant writing style and the scientific (or quasi-scientific) content of this \$20.00 book and ignores the heavy doses of Bambi, he will, I am sure, find it intriguing reading — always colorful, usually informative, often amusing but never boring.

Dick Oehlenschlager



# NOTES OF INTEREST

## **SECOND MINNESOTA RECORD OF A BLACK-THROATED SPARROW —**

On October 7, 1980 an immature Black-throated Sparrow appeared in my yard in Duluth Township, St. Louis Co. It was first observed about 10:00 that morning and was last seen at dusk. During that time it was seen by many observers as it spent most of the time in my gravel driveway apparently feeding on insects in some patches of dead grass. I happened to have a borrowed 8 mm movie camera at the time, and I was able to approach the bird within ten feet and get some good recognizable footage. The sparrow's crown and cheeks were gray; above and below the cheeks were clearly defined white eye- and jaw-stripes (the edges of these stripes were lined with dark gray or black); the underparts were white and the breast was streaked with narrow and diffuse black lines; the back and wings were brownish (there were no distinct wing-bars); the tail was dark gray with no visible white edges; the bill was a light gray and the legs were blackish. The only other Black-throated Sparrow record in Minnesota was also of an immature, also in Duluth Township at Stoney Point September 20-23, 1974. **Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804.**

## **IMMATURE BLACK-LEGGED KITTIWAKE AT GRAND MARAIS —**

The birding trip that Kim Eckert and I took along the North Shore of Lake Superior on November 24, 1979 proved to be very uneventful until we reached Grand Marais, Cook County. There, while standing in the driveway

of the Coast Guard station, I happened to look back toward town and saw a gull approaching from the lake to the east. Since it had been such a dull birding day that even single gulls were worth looking at, I put my binoculars on it as it crossed the gravel bar about 200 feet away. I saw immediately that it was an immature kittiwake because I had a perfect look at the head and back. The dark zig-zag markings of the wing, the dark mark across the nape and the spot on the side of the head were easily seen, bringing to mind the kittiwakes I had seen at the Santa Monica Pier in Los Angeles the year before. I yelled "kittiwake" to Kim and while the bird was blocked from view by the Coast Guard buildings, we both ran to the harbor edge and then picked up the gull in our binoculars as it reappeared from behind the buildings and flew out across the harbor. It dipped down to the water surface once but never landed. We watched it as it flew into the south-westerly wind and beat its way across the harbor to disappear along the lakeshore over the rocks at the base of the west breakwater. The second look provided an even better view of the back and head pattern as well as showing the black-tipped, slightly forked tail. The bird was smaller and the flight more buoyant than the Herring Gulls we had been seeing all day. The size was more like a Ring-billed Gull but the wings seemed longer and narrower than that species. Besides the dark head, wing and tail markings mentioned above the bird was white with a grey mantle. We did not note the color of the bill or the legs. **Janet C. Green, 10550 Old North Shore Rd., Duluth, MN 55804.**

**A FALL LITTLE GULL IN DULUTH** — Date: 19 September 1980; location: Minnesota Point, Duluth; time: 12:30 P.M.; weather: overcast, strong north-east wind. Description: The bird was much smaller than the Ring-billed Gulls near it (approximately  $3/5$  the size). The bird was viewed with 7x35 Bushnell binoculars from a distance of 20 to 300 feet. The head had a black spot behind the eye, crown of head was dark, tail appeared wedge shaped with a black tail band that seemed like a straight line slightly notched in center. The bill and legs were very dark, top of wings — outer primary feathers solid black. Black line diagonally from wrist across wing to body, very strong contrast with gray of back. No white on primaries or buffy on top of wings which separated it from a Bonaparte's Gull. The underwings and body were white. **Donn Mattsson, 4933 29th Ave. S., Minneapolis, MN 55417.**

**SUMMER HAWK OWL RECORD** — It was my good fortune to observe a Hawk Owl in northern Beltrami County, 11 miles north of Waskish on July 13, 1980. While traveling north on Hwy. 72, I saw an odd looking bird perched at the top of a 30 foot dead Aspen tree on the west side of the road. Realizing the bird appeared unusual, I slowed down my car and proceeded to back up about 200 feet until I was just opposite the bird. I was able to observe the Hawk Owl for 30 seconds at 50 ft. with 8x20 Jason Empire binoculars in fairly good early morning light. I had never seen a Hawk Owl before, but I believe this observation was correct beyond a doubt. The bird had a silhouette somewhat similar to an oversized Merlin, but it was longer and stockier, especially in the head and upper body. Its tail became progressively narrower at the end. The bird's belly was finely barred and its head had a dark vertical stripe running down it. Overall body color was dark brown. The bird stared at me for 1/2 minute until a car (unfortunately one of the few I'd seen along the Waskish-Baudette stretch)

traveling north passed and scared the bird. The Hawk Owl then flew across the road eastwardly quite rapidly (much more so than a Short-eared or Barred Owl) at a pretty constant height of 15 - 20 feet. Its flight pattern was interrupted by a series of three long glides. Its wing tips were not pointed like a falcon, but rounded instead. It landed about 200 feet away amidst some stunted black spruce and muskeg. I watched the bird for about two more minutes only out of awe since the light from the sun's angle was bad for viewing. I then proceeded north to Lake of the Woods wondering what a Hawk Owl was doing in the Red Lake Bog Country in July! **Mark Johnson, 1351 E. Maynard Dr., #518, St. Paul, MN 55116.**

**YELLOW-CROWNED NIGHT HERON, AGASSIZ NWR, MARSHALL COUNTY** — On June 6, 1980, Carrol Henderson and Jerry Maertens informed me they had just spotted a Yellow-crowned Night Heron standing in a small, shallow pond along an interior road in Agassiz NWR. I followed them to the location and managed to photograph this very tame, adult heron.



The bird was not seen again at this location; however, on June 17, I observed another (possibly the same individual) Yellow-crowned standing in a refuge ditch six miles east of the June 6 location. This individual was seen for several days at this same location but no attempt was made to search for a nest for fear of nest abandonment. It is worth noting that Great Egrets began nesting at the refuge for the first time in 1978 (northernmost breeding in Minnesota) and that an adult Little Blue Heron was also seen here by myself and others on May 13. These observations provide further evidence of the north and west expansion in the ranges of these three ardeid species. **Jim Mattsson, Wildlife Biologist, Agassiz NWR, Middle River, MN 56737.**

**MINNESOTA'S FIFTH BLACK-LEGGED KITTIWAKE RECORD** — While working on the east shore of Mille Lacs Lake on November 20, 1980, Tom Garlinghouse, Steve Blanich and I found a dead immature Black-legged Kittiwake. The bird, which had been shot, was found lying on the edge of the road approximately one-quarter mile east of the shore of Mille Lacs Lake in Section 20, T44N R25W Lakeside Township, Aitkin County. A description of the bird is as follows: black bill, dark neck-band, black legs with small hind toe (no nail), dark spot behind eye, black outer primaries,



dark band across wings and a dark tail band on a forked tail. Photographs were taken of the bird by Steve Blanich and it was given to the Bell Museum of Natural History as Minnesota's first specimen of a Black-legged Kittiwake. Terry Savaloja, Box 244, Deerwood, MN 56444.

**TOWNSEND'S SOLITAIRES AT HAWK RIDGE** — On October 19, 1980 two Townsend's Solitaires appeared together at the main overlook at Hawk Ridge. They flew in from the northeast in the company of a Hermit Thrush, and for the next three or four minutes flew from bush to bush in the immediate area as if searching for berries to feed on. Their slim shape, upright posture, grayish brown plumage, white eye-rings, buffy wing-patches and white outer tail feathers were easily seen by the seven or eight of us

present at the time, including Victor Emanuel of Texas who first spotted the birds. There is the possibility that there is an invasion of sorts going on this fall for this casual species since it is most unusual to see two individuals of such a species together and since Gary Simonson reported seeing another Townsend's Solitaire at Stoney Point on October 26. **Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804.**

**TOWNSEND'S SOLITAIRE AT STONEY POINT** — On 26 October 1980 at 3:30 P.M., I observed a Townsend's Solitaire at Stoney Point, St. Louis County. The bird was a thrush, about the size of a Swainson's Thrush but not as large in the chest. It was gray in color, with a white eye-ring and white outer tail feathers like a junco. There were no spots on the breast. I am not sure the correct term would be a wing bar, but there was a narrow line on the wings, as if the tips of some of the feathers were a lighter color than the rest of the feathers. Other parts of the wing appeared to be colored this same way. When the bird was perched, I could see a light orange color on part of the wings. When the bird flew, this color was much more obvious. **Gary Simonson, 5407 Morgan Ave. N., Mpls., MN 55430.**

**DOCUMENTED SIGHTINGS OF PARASITIC JAEGERERS AT DULUTH** — Although jaegers are seen every fall in Duluth, most of them are either reported as jaeger, sp. (individuals without projecting tail feathers) or reported without documentation as Parasitic Jaegers. While it is probably a safe assumption that the Parasitic is the most common jaeger in Minnesota, the fact remains this species is currently placed on the casual list because of the lack of documented Parasitic Jaeger sightings. It is therefore important that all jaegers identified as Parasitics be documented until their true status is determined. With this in mind, I saw at least 11 adult Parasitic Jaegers in Duluth during the fall of 1980. The first seven were observed flying low over Park Point between 7 and 8 a.m. on September 14. Six of the seven were light-phase adults with well-defined breast bands, black caps, dark wings with a flash of white in the primaries, and white underparts; the seventh was a dark-phase bird — dark brown all over except for a flash of white in the wings. All seven had pointed central tail feathers which projected two or three inches beyond the rest of the tail. Many observers were present at the time and were able to watch these birds at a range of 50-100 yards as they flew in off the lake and headed southwest towards Superior. Three of these jaegers were probably seen the previous day at Park Point by various observers who reported seeing three Parasitics. There were also two other unidentified jaegers seen at a distance just after the first seven had flown by. Then on October 15, four Parasitic Jaegers were seen at Park Point by several observers including myself. The first was either an immature or a dark-phase adult without projecting tail feathers, but was identified by direct size comparison with both a Herring Gull which was distinctly larger and a Long-tailed Jaeger which was slightly smaller. The other three were a group of light-phase adults which had pointed central tail feathers which projected about two inches beyond the rest of the tail. Soon after these three had flown out of sight, a group of four unidentified jaegers was also seen in the distance. Also, an immature or dark-phase jaeger was seen by various observers at Park Point on October 18 and 19 which was probably the same Parasitic seen on the 15th. **Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804.**

**SUPER CLUTCH, POOR HATCH, IN RING-NECKED PHEASANT NEST AT DULUTH, MINNESOTA** — On 19 May 1980 I came upon an incubating Ring-necked Pheasant in Duluth at its sandy, rather sparsely vegetated Port Terminal which is well known for its many ships and colony of Common Terns. The pheasant's nest was so exposed that I had actually spotted the bird with neck and body pressed flat on the eggs a minute before it flushed and flew off. The fact that I had never seen a sign of pheasant here in the past surprised me, but not nearly so much as her clutch which numbered 24 eggs. Whether this super clutch came from one or several



hens is a moot question. In similar habitat close by were two incubating hen Mallards; one flew off 12 eggs but the other averse to flushing did not expose her clutch despite my presence. On wide open sandy spots a short distance away several busy terns actively constructed scrapes while I watched a Piping Plover return hesitantly to its incomplete clutch of two eggs. The pheasant nest was deserted when I checked it next on 28 May. Evidently only six of the 24 eggs had hatched successfully (see photo). I broke open most of the remaining eggs and found dead chicks of various stages of development, including some well feathered individuals that must have been close to hatching when abandoned. One wonders whether these wasted young resulted from several hens laying at different times, or perhaps from the inability of the hen to incubate effectively all of the many eggs. Even for the indeterminate, prolific layers clutch size has its limits; a synchronized hatch appears to be of major importance also in the energy budgets of these birds — **David Parmelee, Field Biology Program, 349 Bell Museum, University of Minnesota, Minneapolis, MN 55455.**

**POMARINE JAEGER AT PARK POINT** — The evening of October 14, 1980, I received a call from Kim Eckert in Duluth. He informed me that several interesting birds had been seen there the previous few days. Fortunately, I had the following day off, and I was at Park Point by 7:15 a.m. Overcast skies, a light east wind, and a temperature in the low 40's made for fairly

enjoyable birding weather. The first hour or so was uneventful except for lots of gull activity. I'd stationed myself on the beach about midway between the ball field and the airport, staying in one place and hoping a jaeger would fly by. About 8:10 I noticed a large, dark bird moving low over the water about a half mile west of me, and fairly close to shore. It looked like an immature Herring Gull, and I didn't use the binoculars until it was close enough for me to tell that its wingbeat was not gull-like. The large size was very obvious: even several hundred yards away it appeared more the size of a Herring Gull than a Ring-billed. I must admit my encounters with jaegers were limited only to a few previous sightings of Parasitics on Lake Superior; I'd never seen a Long-tailed or Pomarine. No gulls were close enough for a direct size comparison. My qualitative assessment of size is based on common sense, experience, and unbiased birding objectivity. The jaeger's wingbeat was slow, choppy and powerful, and the body build was thick and heavy for a jaeger. Except for quite a bit of white in the primaries, it appeared all dark. The bird approached and passed within 150 feet of me, just at the edge of the water (lake side). I then noticed a small area of smudged grayish-white on the breast; the only other white was in the falcon-like wingtips. The central tail feathers were four to five inches long, and although I didn't notice a twisted appearance, they were narrower where they left the main portion of the tail, and rounded at their extremities. The bill was not seen well enough to use in identification. Based on what I saw, I believe this to be a dark-phase adult Pomarine Jaeger. It continued up the shore towards the Superior Entry, where I lost sight of it. **Steve Millard, 617 E. Cavour, Fergus Falls, MN 56537.**

**LONG-TAILED JAEGER AT DULUTH** — On October 14, 15 and 16 an adult Long-tailed Jaeger was seen in Duluth, representing only the sixth Minnesota record. I first spotted this individual about 9 a.m. on the 14th at Canal Park with some members of my Bird Identification class. It was first seen several hundred yards to the east out over Lake Superior, and gradually it worked its way southwest until it came to the shore about 1/2-mile south of us. It then turned back towards us and several seconds later was at eye-level about 100 yards away flying low over the lawn in front of the Marine Museum. It was then I realized for the first time this was a Long-tailed Jaeger. Without consulting any field guides I called out its identity with the following field marks clearly visible: black cap separated from back by white band on nape; mostly white below with no breast-band, although rear third of underparts were sooty gray; wings and back appeared grayish-brown at that time, but more gray than brown, and there was no visible flash of white in the primaries; two central tail feathers pointed and very long, projecting about six to eight inches beyond rest of tail (this left the impression that half the total length of the bird was tail). The jaeger then flew right over us, only a few yards over our heads, and headed towards downtown Duluth where we lost sight of it. I called the sighting into our Duluth Hotline, wrote down a description of the bird, and continued on out to Park Point with the class. To my surprise, about an hour later we were standing on the wooden platform at the Recreation Area that looks out over the lake when the Long-tailed Jaeger flew right in front of us about 30 yards away. All the field marks noted before were seen again, except this time the back and wings appeared all gray, not brownish-gray, and I could see white in the first two primaries. (This time the jaeger was closer than the first time we had a side view, the angle was

better since the bird was a bit below eye-level, and the light was in the process of improving on this overcast morning.) The jaeger slowly flew south along the beach and was last seen being pursued by three unidentified gulls. The next morning I was back at Park Point with Bob Janssen, Dick Ruhme, Steve Millard, Terry Savaloja, Jo Blanich, Janet Green, Dean Schneider and Molly Kohlbry, and as everyone was hoping the Long-tailed Jaeger reappeared. Although it did not fly in as close to observers as the day before, two additional points were noted: the jaeger was first seen to land in the water about a third of a mile away and the gray color of the back was clearly visible even though the sky was overcast; and for the first time the bird was seen next to two other birds at the same time for some excellent size comparisons — the second-year Herring Gull was distinctly larger than the immature or dark-phase Parasitic Jaeger which was slightly larger than the Long-tailed. The jaeger was last seen at Park Point late in the afternoon the next day by Bill Litkey, Don Bolduc and Oscar Johnson. **Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804.**

**CAPTURE OF WHITE-EYED VIREO IN DAKOTA COUNTY** — A White-eyed Vireo was captured and banded (1520-71788) on October 21, 1980. The specimen was an immature bird and was taken in a mist-net early in the morning. As I approached the net I had a first impression that the trapped bird was a female or immature American Goldfinch. In hand the two wing-bars proved to be associated with a vireo beak. The bird's iris was a greyish-white in color and it displayed the yellowish spectacles of the species. Further examination showed a wing-chord measurement of 60mm. This is considerably shorter than the wing measurements for most of the vireos; The only one which has a relatively short wing, viz. the Philadelphia Vireo, has no wing-bars and lacks the "spectacles." The bird also had a rather short tail (42mm.) but this may not be a defining property. It was in a "fat" condition, obviously migrating or ready to migrate; its weight was 15.5 gms. **R. J. Christman, Macalester College Biology Station, Inver Grove, MN 55075.**

**SABINE'S GULL IN ST. LOUIS COUNTY** — On October 12, 1980, I observed an adult Sabine's Gull on Minnesota Point, St. Louis County. The bird was first seen flying across Lake Street from Lake Superior to Superior Bay. Since the bird flew directly in front of and slightly above my car I did not need binoculars to see the dark head, forked tail and distinct wing pattern. I watched the bird for two hours at distances of 200 feet to one mile. Even when it was on the far side of the bay the back pattern was obvious when the bird would fly. On three occasions the bird was chased off the water by Ring-billed Gulls. I could not see a yellow tip on the black bill but the bill did seem to be short and squared off at the tip, suggesting that the tip was light in color but blended with the water making it hard to see at a distance. The head was dark, appearing to be darker near the base of the hood. The white tail was very noticeably forked. The bird was much smaller than the Ring-billed Gulls which were the only species available for comparison. The outer primaries were black, the back and top edge of the wings were dark while the inner primaries and secondaries were white. The legs appeared to be dark. When last seen the bird was sitting on the Wisconsin side of the bay. This is the fifth record of a Sabine's Gull in Minnesota. **Terry Savaloja, Box 244, Deerwood, MN 56444.**

**ANCIENT MURRELET SPECIMEN FROM LAKE WINNIBIGOSHISH** — The following is the information given me by the student who brought the bird to Vermilion Community College in Ely for identification. The student is a taxidermist and is going to make a live mount of this bird. The photo below is of the specimen. Date taken: October 29, 1979. Location: Musky Bay area of Lake Winnibigoshish near Bena, Cass County, Minnesota. Description: Bird was shot accidentally while flying with a small flock of Buffleheads. Three birds were taken from the group and when picked up, the murrelet was one of them. Time: 12:00 noon, birds decoyed. Weather: Snowing, mixed with rain, winds 10 - 15 mph. **Bill Teft, 1900 E. Camp St., Ely, MN 55731.**

**Editors Note:** This is the sixth record for the Ancient Murrelet in Minnesota.



**Ancient Murrelet specimen**

**Photo by Bill Teft**

**FIRST RED PHALAROPE FOR MINNESOTA POINT** — Sometimes it pays to stay behind. The usual birding strategy in groups is to stick fairly close together in case someone spots something interesting. But on that fateful "Ides of October" in Duluth I decided that trudging through the sand all the way to the Superior entry was not worth the time and effort and that a better way to see birds was to sit on the dune and constantly scan the lake for jaegers and whatever else might fly by. My reward was three jaegers and that seemed sufficient so I focused my attention on looking for the rest of the birding party. Scanning the beach for them, I spotted a phalarope feeding in the surf not far away. The time was noon on October 15, 1980. As I ran down the beach to get a better look, my hopes were high that it was a Red Phalarope, a species that I had never seen. It was easy to confirm that it was indeed a Red Phalarope since it stayed feeding in the surf zone when I walked down to the water's edge near it. Occasionally it flew up over the breaking waves so I got a good view of the back pattern. I watched it for over 15 minutes as I waited for others in the birding party to come back. Finally they came into view and after much yelling and waving of arms I caught their attention. Everyone managed to see the bird as it worked its way toward the northwest feeding close to shore. It even stayed in the vicinity long enough for Marj Carr to be summoned by phone; she was able to bet excellent photos of it. The next two days Kim Eckert found it feeding about the same place at about the same time but it was not seen after that. As a supplement to the photos a description from my notes fol-



lows: Phalarope shape and feeding behavior (picking at surface of water and rapidly turning from side to side). Head, neck and underparts white except for a black mark around eye (not as extensive as shown in some field guides) and a very dark grey head patch that started at the rear crown and continued down the nape, coming to a long, slim point at the hind neck; forehead and anterior part of crown white; bill dark (black) and thicker and shorter than the needle-shaped bill of Wilson's Phalarope; mantle grey, unstreaked on back with white wing stripe; tail whitish at basal half with a wide grey stripe at tip which was slightly darker than grey of back. Through telescope one could see just a hint of light at base of bill. Janet C. Green, 10550 Old N. Shore Rd., Duluth, MN 55804.

**ARBOREAL NEST PREDATION BY A BULLSNAKE** — At 14:30, 5 June 1979, on the Cedar Creek Natural History Area in northern Anoka County, I hear persistent alarm calls by American Robins and several other species (Downy Woodpecker, Blue Jay, Black-capped Chickadee, Northern Oriole, Indigo Bunting, and Chipping Sparrow) from a group of oaks beside an old field. Upon investigation, I found a Bull Snake (*Fituophis melanoleucus sayi*) approximately 1.4m long curled around a robin nest on a horizontal limb of a Bur Oak (43cm dbh). The nest was 2.3m above ground and 2.7m from the trunk. The snake was swallowing one nestling. One egg remained in the nest but was consumed within 10 min. Both adult robins called continuously, perching less than 1m from the snake, sometimes diving at it without contact, but the snake appeared oblivious to the mobbing. As the snake crawled toward the trunk, the alarm calling diminished. When the snake reached the trunk, the robins ceased calling and departed. Several days after the above incident I observed a large Bull Snake (possibly the same individual) 1m up in a Red Pine adjacent to an unoccupied bird house. A. Peterson (pers. comm.) saw a Bull Snake 3m above ground in an oak containing a robin nest with eggs, but the snake was knocked out of the tree by Peterson before it reached the nest. J. Howitz (pers. comm.) noticed a 1.3m long Bull Snake about 2m up in a Black Cherry (20cm dbh) but there were no bird nests in the tree or the immediate vicinity. Bull Snakes are known to depredate the nests of ground and bank nesting birds (Best, Condor 79:509, 1979) but have rarely been observed in trees and hence are not usually considered a threat to tree nesting birds. However, Wright and Wright (Handbook of Snakes, Cornell Univ. Press, Ithaca, Vol. II, p. 607, 1957) state that "prairie bullsnakes . . . ascend trees and banks and

crawl into nesting boxes," and a Bull Snake depredated a Long-eared Owl nest 7.4 m up in a Ponderosa Pine in Montana (Amstrup and McEneaney, Wilson Bull. 92:402, 1980). The closely related Gopher Snake (*Pituophis melanoleucus catenifer*) regularly climbs trees (Cunningham, Herpetologica 11:217-220, 1955). Apparently Bull Snakes can be adept tree climbers, too, particularly if the tree has rough bark. Although Rat (*Elaphe* spp.), Garter (*Thamnophis* spp.), and Racer (*Coluber* spp.) snakes have accounted for the majority of reported nest loss due to snakes, the Bull Snake should also be considered a threat to tree nesting birds. I thank S. J. Maxson for his comments. **George-Ann D. Maxson, Cedar Creek Natural History Area, 2660 Fawn Lake Dr. NE, Bethel, MN 55055.**

**MINNESOTA'S FIRST YELLOW-BILLED LOON** — On November 16, 1980, I observed and identified a Yellow-billed Loon at the Winnie Campground Public Access on the northwest shore of Lake Winnibigoshish, Section 35-T146N-R29W, Itasca County. The weather at the time was cloudy with a northwest wind of about 10 mph. The temperature was about 25°. Equipment used during the observation included 9 x 36 binoculars and a 15 x 60 zoom scope. I observed the bird from 2:00 p.m. to 4:00 p.m. and the bird was still present when I left. The loon, which was in winter plumage, was feeding at the very edge of the ice approximately 500 feet from shore. I did not use any field guides during the time of observation. The following is a description of the bird from my field notes: Larger and thicker necked than two winter plumaged Common Loons which were with it; bill was completely light except for some dusky color near the base of the upper mandible and a small dark spot half way out on the upper mandible; dark ear patch behind and slightly below eye; general coloration lighter than Common Loon giving the bird a blond appearance when seen with the darker and grayer Common Loons; back stripes were much bolder and more obvious than those of the Common Loons, giving the bird's back a striped effect when seen next to the solid backed Common Loons. The general color difference, light bill, ear patch and back stripes were immediately apparent when looking at the bird with 9 x 36 binoculars. Bill color was more off-white or ivory rather than yellow and the dark spot on the upper mandible was very likely the nostril. I could not convince myself that the bill as a whole was upturned, it seemed more that the upper mandible was straight with the lower mandible straight for about the first third and then curved up to meet the upper mandible. The ear patch was attached to the crown (which was darker than the rest of the head) by a band which was lighter than the ear patch but darker than the areas in front of, below and behind the ear patch. The bird appeared to dive more often and stay under longer than the Common Loons but this was not timed. The bird could not be found the next day. On November 27, 1980, I watched a Yellow-billed Loon for several hours at Two Harbors in Lake County. This bird had been found the day before in Duluth by Janet C. Green. I could not see any differences in plumage between the Itasca County and Lake County birds and feel they were possibly the same bird. **Terry Savaloja, Box 244, Deerwood, MN 56444.**

**YELLOW-BILLED LOON ON LAKE SUPERIOR** — When Terry Savaloja reported a Yellow-billed Loon on Lake Winnibigoshish in November, my reaction was one of astonishment coupled with respect for Terry's skill. Like most mid-western birders I was barely aware of its existence as a species never mind its possible presence in Minnesota. Fortunately, the

news of Terry's acute observation came complete with references on how to identify the bird in winter, specifically an article in **Western Birds** (5:111-126, 1974). That paper I read together with an excellent discussion in **British Birds** (July, 1974) on its occurrence and identification there. The knowledge gained from Terry and these journal articles was strictly of academic interest, or so I thought. On the day before Thanksgiving (November 26, 1980) the conditions for birding along the shore of Lake Superior were perfect, completely calm and overcast with little glare on the lake, so I decided to take the shore route on my way back from town. Driving along the Brighton Beach road just east of Lester River, I spotted a large loon quite close to shore. My thought was of a late Common Loon as I put my binoculars on it. Through the glasses I was completely amazed to see the very obvious dark ear patch that both the journal articles and Terry had emphasized as the best field mark for a Yellow-billed Loon in winter plumage. The bird was swimming and diving very close to shore, working its way eastward, and I was able to follow it for about two miles. In the hour or so it took to do this I got several excellent views by driving ahead of the bird and waiting on the bank for it to come by. It was fishing extremely close to shore, usually ten to thirty feet from the rocks, and on a couple of occasions I could look down on it directly from above. A description from my notes follows: An adult loon in winter plumage with very strong transverse barring on the back that was like a faded remnant of the checker-board pattern of the breeding plumage. The hind collar of the breeding plumage also seemed to be represented by a lighter streak of beige across the brownish back of the neck. The size of body, neck and bill was robust like a Common Loon and it had a very pronounced brow line which was almost like a forehead crest. The forehead, crown and nape were brownish. The face was white below the eye and the white circled the eye in an obvious ring. Posterior to the eye was a roundish dark brownish spot in the auricular region that was bordered posteriorly by a larger whitish (not pure white; actually off-white because of admixture of darker feathers) area that came down on the side neck and also separated the ear patch from the hind neck. This white area was bordered posteriorly by a darker line between it and the lighter collar tracing. The chin was dusky and the throat was white with darker (brownish) marks coming forward from the dark side neck at the water line and almost meeting in front. The bill was bone colored except for a darker area at the base of the upper mandible, and it had yellow showing at the tip on both mandibles and along the full length of the culmen. The yellow on the bill was distinctly seen, especially from above, and is a diagnostic mark in distinguishing a winter plumaged Yellow-billed Loon from a Common Loon. **Janet C. Green, 10550 Old North Shore Rd., Duluth, MN 55804.**

**Editor's Note:** On the morning of November 27, 1980 (Thanksgiving Day) the Yellow-billed Loon was seen in the harbor at Two Harbors, Lake County, by Terry Savaloja, Jo and Steve Blanich and Lloyd Paynter. Lloyd got within 30 feet of the bird and was able to photograph it (see front cover). This location is approximately 20 miles NNE of where Jan saw the bird on the 26th. On November 28th at 8:30 a.m. Ray Glassel, Kim Eckert and I found the bird in Burlington Bay, just east of Two Harbors. We watched the bird for over 30 minutes as it dove and swam close to the shore. The bird was moving in a general NNE direction up the shore. On subsequent days a number of observers attempted to locate the bird but it was never seen again.

## 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.



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### SUGGESTIONS TO AUTHORS

The editors of **The Loon** invite you to submit 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 Kim Eckert. See inside front cover.

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**MEMBERSHIPS AND SUBSCRIPTIONS:** Evelyn Stanley, 213 Janalyn Circle, Minneapolis, Minnesota 55416. To join the MOU and receive both MOU publications, send \$7.50 for a regular yearly subscription. Or other classes of membership that you may choose are: Family \$10.00 yearly; Supporting \$15.00 yearly; Sustaining \$25 yearly; Life \$150. Canadian and Foreign Subscriptions, \$10 yearly. All subscriptions are on a calendar year basis. Also available: 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 the treasurer.

**EDITOR OF THE LOON:** Robert B. Janssen, 10521 S. Cedar Lake Rd., Minnetonka, MN 55343 (phone 612-546-4220), The editor invites 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 invite reports from parts of the state that have been neglected or covered lightly in past reports. To become a contributor to "The Season," request the report forms from the **EDITOR OF "THE SEASON,"** Kim Eckert, 9735 North Shore Drive, Duluth, Minnesota 55804. (phone 218-525-6930).

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# BIRDS OF BIG STONE NATIONAL WILDLIFE REFUGE

Micki Buer

Three miles from its headwaters, at Big Stone Lake, the Minnesota river quietly meanders through a wide scenic valley. Contrasting landscapes — rivers, rocky outcrops, wetlands, prairie fens and sandy terraces — reveal the dynamic forces which have moulded this valley over the last two billion years. This is Big Stone National Wildlife Refuge, 10,795 acres of land and water paralleling the Minnesota river for nine miles.

Typical bottomland forest predominates along the Minnesota and Yellow-bank rivers, with scattered trees surrounding marshes, conservation pools, or forming groves in prairie coulees. Willow, cottonwood, silver maple, and lianas are characteristic species growing along riverbanks. On higher ground the vegetation is dominated by elm, ash, hackberry, and boxelder. The understory is scarce in wetter areas, but on drier soil raspberry, currant, wahoo, and numerous wildflowers thrive.

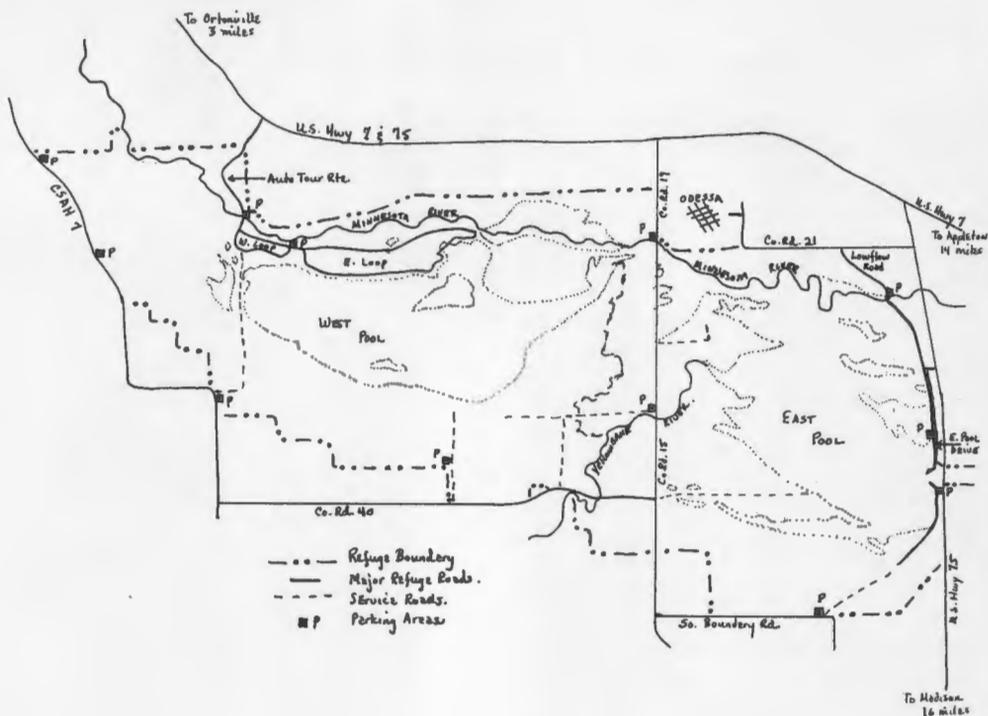
Beyond the river corridor, upland prairie is the dominant community. A blend of cool and warm season grasses — dropseed, junegrass, little bluestem, and grama grasses — intermingle with pasqueflowers in spring and coneflowers in summer. Oaks and red cedars dot the drier prairie typical of sandy terraces and outcrops. A composition of sedges, cordgrass, big blue stem, and delicate wildflowers, such as ladyslippers and lilies, are characteristic of mesic and wet meadows.

Many wetlands are scattered throughout the valley. The predominant species of these communities are cattails, sedges, bulrushes, and aquatic herbaceous plants.

Depending on the season a great variety of birds are attracted to the valley's unique habitats. Surveys have documented 237 bird species, including 40 species rare to casual in the west central region. At the height of migration the valley becomes a sanctuary for thousands of birds. Some will remain to nest and fledge their young, while others rest and forage for food, necessary for building energy reserves, before continuing their movements to northern breeding territories. During the peak nesting season 116 breeding bird species account for the greatest percentage of all Big Stone's resident wildlife.

Birding at Big Stone can be an exhilarating experience. For the casual observer many species feed or rest along roadside marshes, woods and prairie clearings. Birders seeking more challenge find numerous abandoned roads and trails, or service roads which provide opportunity for walking into less accessible areas. For the adventurous, canoeing the Minnesota river may offer some interesting observations. Canoeing is only allowed in the river channel. Adjoining conservation pool areas are closed to unauthorized visitors.

Most birders making a special trip to Big Stone refuge are in hopes of finding a particular species. Most of the inquiries I've received concern the valley's colonial nesting species: Little Blue Heron, Snowy Egret, Cattle Egret, and Western Grebe. Other birders are seeking species endemic to the prairie: Dickcissels, Field Sparrows, Marbled Godwits, Upland Sandpipers, and Short-eared Owls. Occasionally patient observation offers



rare rewards: Yellow-crowned Night Heron, Prairie Falcon, Kentucky Warbler, or Henslow's Sparrow for the birder's life list.

Currently Big Stone's Birding checklist<sup>1</sup> is outdated, however, it is a beneficial indicator of species which may be found within the refuge or the surrounding area.

The up-dated list of Big Stone birds presented in this article is intended as a birding guide, based on sources presently available to the author. Besides the listed reference sources, much of the list is based on data from the author's field notations from 1973 to the present.

Nomenclature basically follows the format utilized in *Minnesota Birds, Where, When and How Many* by J. Green and R. Janssen. The criteria for

abundance is based on the number of birds seen by an active observer during a single or two-day per week survey. Supplementing these surveys, recorded observations were compiled from refuge reports and *The Loon* seasonal reports. Additional information in the up-dated list includes: 1) seasonal occurrence, 2) habitat preference, and 3) observation areas where the species is most likely to be seen.

Not every species is included in the up-dated list. Only species that may be of special interest have been selected. The list is only a beginning and does not provide a completed record of Big Stone birds. Much more data is needed before this can be possible. The primary objectives of the guide is to provide an enlightenment about Big Stone birds and what makes the refuge such a special place for birding. It is hoped that the guide would in part assist other birders to focus on species not only presented in this list, but other species as well

<sup>1</sup> Obtainable by writing the refuge manager, Big Stone National Wildlife Refuge, 25 NW 2nd Street, Ortonville, MN 56278.

and to help fill the gaps and supplement present information. There is a need for further observations. Though there is much information on spring arrivals, less is available on departure of spring migrants. Fall migration and the winter season is based largely on the data compiled by the author over a seven-year period, which is not enough to provide an accurate overview of these seasons. Comprehensive data has been collected on waterfowl and colonial bird nesting, but much more is needed on refuge songbirds.

The author is grateful to Bob Jansen for his encouragement and suggestion towards the writing of this guide. A special thanks to my husband, Chuck Buer, for his assistance in many of the field observations, useful comments and support in the writing of this article.

Abundance and frequency standard are defined by the following criteria:

Abundant — Daily counts of more than 50 birds.

Common — Daily counts of 10 to 40 birds.



Minnesota River — Photo by Chuck Buer (Big Stone NWR)

Any additional information on Big Stone birds (past, present or future) or observation areas would be appreciated. Information should include the species and number of birds observed, behavioral activity (i.e. nesting), locality and habitat, date, county, township and section number, name and address of observer, names of additional observers. Submit reports, in writing, to Micki Buer, Rt. 2, Box 165, Dawson, MN 56232.

Uncommon — Daily counts of 1 to 5 birds, with species observed at least weekly.

Rare — Species observed only a few times per season.

Very rare — Species is not observed every year.

Regular — recorded every year during one or more seasons.

Occasional — species not observed every year, but because of its Minnesota range it can be expected



**Prairie Marsh — Photo by Craig Blacklock (Big Stone NWR)**



**West Pool Mudflat — Photo by Craig Blacklock (Big Stone NWR)**



**Penstemon Prairie — Photo by Chuck Buer**

to wander into the refuge at frequent intervals.

**Irregular** — species not observed every year, but an average of at least one to two observations in five years.

**Sporadic** — average records are usually infrequent with at least two to three observations in a decade.

**Casual** — species can be expected to occur at infrequent intervals. Only one recorded observation.

Seasonal occurrence are defined by

the following criteria:

**Resident** — species a year-round resident of the refuge.

**Summer resident** — breeding species.

**Migrants** — species occurring only in spring and/or fall.

**Visitants** — non-breeding birds seen during summer, or non-resident birds seen during winter.

**Vagrants** — species irregular to the season, wandering beyond their normal seasonal range. Often refers to winter invasions.

### **Loons (Family Gaviidae)**

The **Common Loon** is a rare spring migrant and summer visitant. Most often seen in May and August. Summer visitants depart by early-September. Since 1979 infrequent summer observations were reported of non-breeding birds on the East Pool. Observation area: East Pool Drive.

### **Grebes (Family Podicipedidae)**

The **Horned Grebe** is a common spring migrant and uncommon fall migrant. Most often seen in late-April and late-September on the East Pool. Observation area: East Pool Drive and Lowflow access.

The **Eared Grebe** is an uncommon spring migrant and rare fall migrant. Most observations are in late-April and early-May. Only one current breeding record (1977). Habitat: Marshes and conservation pools. Observation area: East Pool Drive and Lowflow access.

The **Western Grebe** is a locally abundant summer resident. Most birds arrive late-April through May and depart in September. One of the state's largest colony sites (100-200 birds) is found here. Breeding surveys in 1979 documented 100 active nests producing an average of two young. Noted for their spectacular courtship display which is most often seen in May. Habitat: Marshes and conservation pools. Observation area: East Pool Drive and Lowflow access.

The **Pied-billed Grebe** is a common summer resident. Birds arrive mid- to late-April and remain until September. Habitat: Marshes.

### **Pelicans (Family Pelecanidae)**

The **White Pelican** is a locally abundant summer visitant. Numerous birds arrive early- to mid-April with most birds departing by mid-November. Currently no breeding has been documented for the refuge, however, a colony site is located on nearby Marsh Lake. Habitat: Conservation pools and rivers. Observation area: East Pool Drive, Lowflow access, and Auto Tour Route.

### **Cormorants**

#### **(Family Phalacrocoracidae)**

The **Double-crested Cormorant** is an abundant summer resident. Frequently seen on conservation pools and rivers from late-March through mid-November. Latest fall record is December 10th. Hundreds of birds nest in the refuge rookery. Observation area: East Pool Drive, Lowflow access and Auto Tour Route.

### **Herons and Bitterns (Family Ardeidae)**

The **Great Blue Heron**, **Great Egret**, and **Black-crowned Night Heron** are abundant summer residents. Birds are frequently seen on marshes, conservation pools and rivers from March through October. Great Blue Herons have been reported also in December. All three are the dominant nesting species in the refuge rookery. Observation area: East Pool Drive, Lowflow access and Auto Tour Route.

The **Cattle Egret** is an uncommon to common summer resident. Peak spring migration occurs early- to mid-May. First documented breeding observation (1977) was in the refuge rookery. No reported observations after early-September. Habitat: Marshes, meadows and surrounding pastures. Observation area: Auto Tour Route and County road 15.

The **Snowy Egret** is a rare, yet regular summer resident. Most observations occur from early- to mid-May and in August. First documented breeding observation (1977) was in the refuge rookery. No fall observation records after early-September. Habitat: Marshes, meadows and conservation pools. Observation area: Auto Tour Route and County road 15.

The **Little Blue Heron** is a rare, but regular summer resident. Birds arrive late-April to early-May and are present until early- to mid-September. First summer observations were recorded June, 1976. First documented nesting record (1979) was in the refuge rookery. Habitat: Marshes, conservation pools, wet meadows, and rivers. Obser-

vation area: County road 15 and Auto Tour Route.

Status for the **Yellow-crowned Night Heron** is presently unknown, though it is infrequently seen from mid-May to August. No documented nesting records, however, immature birds have been reported since 1977. Habitat: Marshes, wet meadows, and rivers. Observation area: Auto Tour Route, and the Minnesota or Yellowbank rivers.

The **Least Bittern** can be occasionally seen from early-May until August. Four records have been documented for this elusive species. Habitat: Marshes.



**Snowy Egret — Photo by Chuck Buer**

Summer 1981

## **Swans, Geese and Ducks**

(Family Anatidae)

The **Whistling Swan** is a common migrant in both seasons. Most observations occur from March to mid-April and in November. Habitat: Conservation pools. Observation area: East Pool Drive, Lowflow access and Auto Tour Route.

The **White-fronted Goose** is a common migrant in both seasons. Birds can be seen flying over or resting on the East Pool in April and late-September to mid-October. Observation area: East Pool Drive.

The **Snow Goose** is an abundant migrant in both seasons. Thousands of birds are usually seen flying over the East and West Pools from March through April and in October. Observation area: East Pool Drive.

The **Wood Duck** and **Ruddy Duck** are common summer residents. The Wood Duck is frequently seen April through September on refuge rivers. Ruddy Ducks are most often seen from April to October on the East and West Pools. There are also nesting reports for the **Gadwall**, **Green-winged Teal**, **Redhead**, and **Canvasback**. Summer observations have been reported also on the **American Wigeon** and **Ring-necked Duck**.

The **Black Duck** is rare in any season. Most observations have been recorded in April and October.

The **Lesser Scaup** is an abundant migrant in both seasons. More numerous in spring than fall, peak migrations occur in April and October.

The **Greater Scaup** is a rare migrant in both seasons. Few observations have been reported, but this may reflect that this species is possibly being overlooked by observers because of its similarity to the Lesser Scaup.

The **Common Goldeneye**, **Bufflehead**, and **Red-breasted Merganser** are all uncommon migrants and rare to uncommon fall migrants. The Common Goldeneye and Bufflehead are most often seen in April. Red-breasted Mergansers are observed mostly in early-May.

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The **Common Merganser** is a common migrant in both seasons. Frequently seen from March through early-May and in November.

The **Hooded Merganser** is a rare to uncommon summer resident. Birds arrive mid- to late-April and are present until October. Habitat: Rivers. Observation area: Auto Tour Route.

The best areas to observe waterfowl during spring migration is along County road 15, the East Pool Drive and Lowflow access, and the Auto Tour Route. For fall migration the best areas would be the East Pool Drive, Lowflow access and Auto Tour Route. During summer walking trails or roads, into less accessible areas bordering both conservation pools, will provide the best opportunity to see nesting waterfowl and their young.

Wintering ducks are scarce in the valley due to lack of open water. Occasionally open areas do occur on the Minnesota river and East Pool. The Canada Goose and Mallard are the dominant wintering species. There are winter records for the Black Duck, Gadwall, American Wigeon, Redhead, Ring-necked Duck, Lesser Scaup, Common Goldeneye, Bufflehead, and Common Merganser. The best observation area would be the Minnesota river channel at the Lowflow access.

### **American Vultures**

(Family Cathartidae)

The **Turkey Vulture** is an uncommon migrant in both seasons and a rare summer visitant. Five recorded observations, most often seen in May and June. Usually seen soaring above the prairie or bottomland forest.

### **Hawks, Eagles and Harriers**

(Family Accipitridae)

The **Sharp-shinned Hawk** and **Cooper's Hawk** are uncommon, but regular migrants in both seasons. Usually observed from April to May and in September. There are no nesting records for either species. Habitat: Bottomland forest. Observation area:

Lowflow access and Auto Tour Route.

The **Red-shouldered Hawk** is a very rare spring migrant. There are only four records, all in May. Observed only in flight above the Minnesota river. Habitat: Bottomland forest. Observation area: Auto Tour Route.

The **Broad-winged Hawk** is an uncommon, yet regular migrant in both seasons. Most observations are during spring from April to May. Fall reports are mostly in September. Habitat: Bottomland forest. Observation area: Auto Tour Route, west loop along the Minnesota river.

The **Swainson's Hawk** and **Marsh Hawk** are uncommon summer residents. Birds usually arrive in April and remain until September. The Swainson's Hawk is usually observed soaring above the prairie. The Marsh Hawk is most often found soaring above prairies surrounding a marsh. Observation area: Auto Tour Route, along CSAH 7 or the south boundary road.

The **Rough-legged Hawk** is an uncommon migrant in both seasons. More numerous in the fall. Usually seen from March to mid-April and from October to November. A rare to uncommon winter visitant. Most records are for December and January. Habitat: Prairie. Observation area: Auto Tour Route and County road 15.

The **Ferruginous Hawk** is an occasional to very rare migrant. Only one documented record (October, 1977). Most likely to be seen in April or October. Habitat: Prairie.

The **Bald Eagle** is a rare to uncommon, yet regular migrant in both seasons. Most often seen in April and from September to November. One winter record (January, 1979). Habitat: Bottomland forest and inundated trees of the East Pool. Observation area: County road 15, Lowflow access and the East Pool Drive.

The **Golden Eagle** is an occasional migrant. Only four recorded observations since 1973. Usually seen in April and October. Habitat: Bottomland for-

est. Observation area: County road 15 and Auto Tour Route.

### **Osprey** (Family Pandionidae)

The **Osprey** is a rare, yet regular spring migrant. Usually seen from late-April through May. No fall observations reported. Habitat: Bottomland forest, along the Minnesota river, and the east conservation pool. Observation area: County road 15, Auto Tour Route, and the Lowflow access.

### **Falcons** (Family Falconidae)

The **Peregrine Falcon** is an occasional to very rare migrant. Most reported observations are in April and October. Habitat: Bottomland forest along the Yellowbank and Minnesota rivers. Observation area: County road 15.

The status of the **Prairie Falcon** is still unknown. Currently only two documented observations (September 1978 and May 1979).

The **Merlin** is a rare to uncommon migrant in both seasons. More numerous in spring, late-April through May. Fall migrants often seen in September. In the past three years there have been increasing winter observations. Most of the records are in December with at least one bird observed during the winter season. Habitat: Bottomland forest. Observation area: Auto Tour Route.

### **Cranes** (Family Gruidae)

The **Sandhill Crane** is a rare, yet regular migrant. Flocks are usually seen flying over the refuge in April. There are no fall records.

### **Rails, Gallinules and Coots** (Family Rallidae)

The **Virginia Rail** is a rare, yet regular migrant. Most of the observations occur in May. Infrequent summer observations have been recorded, however, there are no nesting records. Habitat: Marshes. Observation area: Auto Tour Route and County road 15.

The **Sora** is an uncommon to common summer resident. More often heard than seen, birds arrive in April

and remain until August. Habitat: Marshes. Observation area: Auto Tour Route and County road 15.

### **Plovers and Turnstones** (Family Charadriidae)

The **Semipalmated Plover** is an uncommon spring (May) and fall (July-August) migrant. Most easily seen feeding on mudflats or along shorelines and sandbars of shallow marshes and conservation pools. Observation area: Auto Tour Route, County road 15, or by walking trails and roads into less accessible sites along the West and East Pools.

The **American Golden Plover** is a common to abundant spring (late-April to mid-May) and fall (August to October) migrant. Can be occasionally found feeding in shallow wet meadows or on mudflats. However, most observations are of flocks flying over the refuge.

The **Black-bellied Plover** is a rare, yet regular migrant. Flocks are usually seen flying over the refuge from late-April through May. Fall records are scarce, with all reports occurring during August.

The **Ruddy Turnstone** is a very rare spring migrant (May to early-June). First documented spring observation (May 25, 1979). No fall records. Habitat: Gravel shorelines and mudflats. Observation area: East Pool (south and west shoreline).

### **Woodcock, Snipe and Sandpipers** (Family Scolopacidae)

The **American Woodcock** is a rare to uncommon summer resident. Displaying males can be heard and seen on "peenting" grounds along the Auto Tour Route from late-April through May. There has been an increase in summer observations since 1976. Habitat: Swales, rock outcrops and bottomland forest.

The **Common Snipe** is a common summer resident. Most often heard and seen during their aerial displays above wet meadows and shallow marshes from late-April through May. Most birds depart by late-September.

Observation area: Auto Tour Route and South boundary road.

The **Upland Sandpiper** is an uncommon summer resident. Birds arrive mid-April and remain until early-August. Habitat: Prairies. Observation area: South boundary road.

The **Spotted Sandpiper** is an uncommon to common summer resident. Most easily found along river shores and sandbars, and conservation pool shorelines. Observation area: Auto Tour Route, and East Pool Drive.

The **Lesser Yellowlegs, Pectoral Sandpiper, White-rumped Sandpiper, Baird's Sandpiper, Least Sandpiper, Semipalmated Sandpiper, and Sanderling** are all common to abundant migrants in both seasons.

The **Solitary Sandpiper, Greater Yellowlegs, Willet, Dunlin, and Long-billed Dowitcher** are uncommon migrants in both seasons.



Solitary Sandpiper — Photo by Chuck Buer

The **Western Sandpiper** and **Short-billed Dowitcher** are rare migrants in both seasons.

Status of the **Stilt Sandpiper** and **Buff-breasted Sandpiper** remains uncertain. There are two records for the Stilt Sandpiper, both in the spring (May, 1975 and 1978). There is only one record (May, 1979) for the Buff-breasted Sandpiper. No fall records.

The **Marbled Godwit** is an uncommon summer resident. Most often seen on prairie fens and meadows, or shallow grassy marshes.

The **Hudsonian Godwit** is an uncommon spring migrant and rare fall migrant.

During spring migration (late-April through early-June) numerous shorebirds frequent mudflats, shallow marshes and conservation pool shorelines. Shorebirds are fewer in numbers during fall migration (mid-July through September) and are more easily found along conservation pool shorelines. The best areas to observe spring migrants is along County road 15, the south and west shores of the East pool, and the west shore of the West Pool.

#### **Avocets** (Family Recurvirostidae)

The **American Avocet** is an occasional migrant. Only one summer record (June 5-16, 1978).

#### **Phalaropes** (Family Phalaropodidae)

The **Wilson's Phalarope** is a common spring and uncommon fall migrant. Most observations occur from late-April through June. Infrequent observations have been reported during the summer, and it is probable that some birds are nesting. Most birds have departed by late-August. Habitat: Marshes and conservation pools.

The **Northern Phalarope** is a rare to uncommon, yet regular migrant, with most observations occurring during May. There are only two fall records, both in August. Habitat: Marshes and conservation pools.

#### **Gulls and Terns** (Family Laridae)

The **Herring Gull** is a common mi-

grant in both seasons. Birds arrive about the time of the spring thaw (late-February and March). Fall migrants are frequently seen from October to December. A few stragglers have been recorded in January. Habitat: Conservation pools. Observation area: East Pool Drive and Lowflow access.

The **Franklin's Gull** is a common to abundant spring and fall migrant, and an uncommon summer visitant. Birds are easily found flying over the conservation pool areas from April through May, and from September through October. There are occasional summer reports, but no confirmed nesting records.

The **Bonaparte's Gull** is a rare to uncommon migrant. Most birds are seen flying over the East pool from late-April through May.

The **Forster's Tern** is an uncommon to common migrant. Summer records are increasing, with some birds possibly summer residents. Birds arrive in late-April, with fall migrants observed from August to early-September. Habitat: Conservation pools. Observation area: East Pool Drive and Lowflow access.

The **Common Tern** is an uncommon migrant, usually seen from late-April through May, and in August. Habitat: Conservation pools. Observation area: East Pool Drive and Lowflow access.

The **Caspian Tern** is an occasional refuge visitor. There is one documented fall observation (August 21, 1979).

#### **Cuckoos (Family Cuculidae)**

The **Yellow-billed Cuckoo** is a rare to uncommon summer resident.

The **Black-billed Cuckoo** is an uncommon to occasionally common summer resident.

Numbers of both species apparently fluctuate with increases occurring in years of caterpillar infestations. Both species arrive in late-April or early-May and remain until August. They inhabit the bottomland forest, oak savannah, and prairie thickets. Observation area: Auto Tour Route.

#### **Owls (Family Strigidae)**

The **Snowy Owl** is a winter vagrant. Presently there are only two recorded winter observations. Habitat: Prairies and fields.

Status of the **Barred Owl** is uncertain. Records are scarce, however, it is assumed to be a rare permanent resident. Habitat: Bottomland forest.

The **Long-eared Owl** is a rare migrant and winter visitant. Birds are best found in the bottomland forest or prairie groves. Migrants are usually seen in April and November. Observation area: Auto Tour Route, or along the Minnesota or Yellowbank rivers.

The **Short-eared Owl** is a rare to uncommon summer resident, and a very rare winter visitant. Birds are usually seen from April through October. All the winter records are from December through January. Habitat: Prairies. Observation area: South boundary road.

#### **Woodpeckers (Family Picidae)**

The **Pileated Woodpecker** is a rare to uncommon permanent resident. Habitat: Bottomland forest. Observation area: Along the Minnesota and Yellowbank rivers.

The **Red-bellied Woodpecker** is a winter vagrant. There is only one record (December, 1974). Habitat: Bottomland forest.

The **Yellow-bellied Sapsucker** is an uncommon to common summer resident. Birds arrive in April and remain usually until September. Habitat: Bottomland forest and oak savannah. Observation area: Auto Tour Route.

#### **Tyrant Flycatchers (Family Tyrannidae)**

The **Western Kingbird** is an uncommon summer resident. Most easily found resting on fence lines bordering prairies.

The **Great Crested Flycatcher** is an uncommon to common summer resident. Birds can be heard and seen in bottomland forest and oak savannah communities.

The **Willow Flycatcher** is a common summer resident. More often heard than seen this flycatcher is found in willow thickets and saplings of the bottomland forest and marsh edges.

The **Alder Flycatcher** is an occasional migrant. Most observations have occurred during spring migration.

The **Least Flycatcher** is a common migrant and uncommon summer resident of bottomland forest openings or prairie groves.

The **Eastern Wood Pewee** is an uncommon to common summer resident of the bottomland forest and oak savannah.

Flycatchers usually arrive in late-April or May. Summer residents will remain until August, with a few stragglers seen in early-September. The best observation area for flycatchers is the Auto Tour Route, Low-flow access, County road 15 and the prairie along CSAH 7.

#### **Swallows (Family Hirundinidae)**

The **Tree Swallow** is an abundant summer resident. Easily seen along river shores or occupying inundated groves in conservation pool areas.

The **Bank Swallow** is a rare summer resident. Small colonies were found prior to 1976, however, suitable habitat is now scarce. There are infrequent summer reports of birds seen on the river or in gravel borrow areas.

The **Rough-winged Swallow** is a common summer resident. Usually seen along the Minnesota river.

The **Cliff Swallow** is an abundant summer resident. Large colonies (100-300 birds) can be found under bridges over the Minnesota and Yellowbank rivers.

Swallows usually arrive in April and remain until August and September. The best areas to observe swallows is the Auto Tour Route and East Pool Drive, or on a canoe trip down the Minnesota river.

#### **Jays, Magpies, Ravens and Crows (Family Corvidae)**

The **Black-billed Magpie** is an irregular to occasional vagrant usually

seen in fall (October). One summer record in July, 1979. Habitat: Bottomland forest.

#### **Nuthatches (Family Sittidae)**

The **Red-beasted Nuthatch** is an uncommon and occasionally common migrant. More numerous in fall (September and October). No winter records. Habitat: Bottomland forest and oak savannah. Observation area: Auto Tour Route.

#### **Creepers (Family Certhiidae)**

The **Brown Creeper** is an uncommon migrant and summer visitant, and a rare to uncommon winter visitant. An excellent area to look for these birds is in the bottomland forest and oak savannah of the Auto Tour Route interpretive trail area.

#### **Wrens (Family Troglodytidae)**

The **Long-billed Marsh Wren** is a common summer resident of cattail marshes.

The **Short-billed Marsh Wren** is an uncommon summer resident. Since 1978 summer records have increased. Birds can be found in grassy swales and meadows or sedge fens.

Wrens arrive in late-April and are present until August with a gradual fall exodus through September. The best observation area is the Auto Tour Route.

#### **Thrushes, Solitaires and Bluebirds (Family Turdidae)**

The **Wood Thrush** is an uncommon migrant and a rare to occasionally uncommon summer resident. Singing males can be heard and seen during May in the bottomland forest. A gradual fall exodus occurs in August with most birds having departed by early-September.

The **Hermit Thrush, Swainson's Thrush and Gray-cheeked Thrush** are common migrants. The Hermit Thrush is the earliest spring migrant with birds often observed in March and April. Singing males can be heard in the bottomland forest in April and

early-May. The Swainson's Thrush and Gray-cheeked Thrush usually arrive late-April or early-May. Fall migration occurs from August through September. All three frequent the bottomland forest, and oak savannah or prairie thickets.

The **Veery** is a rare summer resident of the bottomland forest. Singing males can be heard occasionally in May. A gradual fall exodus occurs in August.

The **Eastern Bluebird** is an uncommon migrant, more numerous in spring than fall. Summer records are scarce, with nesting documented in 1977 and 1978. Birds frequent the oak savannah and prairie groves during late-April and early-May. No fall records.

The best area to observe migrant and resident thrushes is the Auto Tour Route.

#### **Gnatcatchers and Kinglets**

(Family Sylviidae)

The **Golden-crowned Kinglet** and **Ruby-crowned Kinglet** are common migrants. Singing males can be seen in the bottomland forest from late-April, to early-May. There are few fall records, with most observations in October and November. Observation area: Auto Tour Route.

#### **Pipits (Family Motacillidae)**

The **Water Pipit** is a rare to occasionally uncommon migrant. Birds have been recorded seen flying over the conservation pool areas from late-April through May, and in October.

The **Sprague's Pipit** is an occasional migrant. There are two spring records (late-April) of birds flying along the shores of the East pool.

#### **Waxwings (Family Bombycillidae)**

The **Bohemian Waxwing** is a rare winter vagrant. There are two winter records (January, 1973 and December, 1976). Habitat: Bottomland forest.

The **Cedar Waxwing** is a common migrant with numbers fluctuating year

to year. Migrational patterns are difficult to determine because of winter visitants and possible summer residents. Summer status remains uncertain, though there are infrequent records no nesting has been confirmed. Birds often frequent the bottomland forest and prairie groves with most observations occurring from March through May, in July, and from October through January. Observation area: Auto Tour Routes.

#### **Shrikes (Family Laniidae)**

The **Northern Shrike** is a rare migrant and winter visitant. Infrequent reports occur from October through April of birds seen on the prairie or perched in scattered trees around marshes.

The **Loggerhead Shrike** is a rare migrant and possible summer resident. Most birds arrive in April, are seen infrequently during the summer on the prairie, then gradually migrate through October.

The best observation area for shrikes is along CSAH 7, South boundary road and County road 15.

#### **Vireos (Family Vireonidae)**

The **Solitary Vireo** is an uncommon migrant, usually seen from late-April through May in the bottomland forest. Fall records are scarce with the only reports occurring in September.

The **Red-eyed Vireo** is an uncommon summer resident. Can be heard singing or infrequently seen from May through August in the bottomland forest.

The **Philadelphia Vireo** is an uncommon migrant, more numerous in spring (late-April through early-June) than in fall (August and September). Birds frequent thickets and saplings of the bottomland forest and marshes.

The **Warbling Vireo** is an uncommon summer resident of the bottomland forest. Birds usually arrive in late-April and early-May and remain until August.

The best observation area for vireos

is the Auto Tour Route or along the Minnesota river.

### **American Wood Warblers** (Family Parulidae)

Twenty-five species of wood warblers have been recorded on the refuge. Warblers are more numerous during peak spring migration (early- to mid-May) than in fall (August through September).

The **Black-and-white Warbler**, **Tennessee Warbler**, **Orange-crowned Warbler**, **Nashville Warbler**, **Yellow-rumped Warbler**, **Palm Warbler** and **Mourning Warbler** are common migrants.

The **Blackpoll Warbler**, **Magnolia Warbler**, **Northern Waterthrush**, and **Wilson's Warbler** are uncommon migrants.

The **Cape May Warbler**, **Black-throated Green Warbler**, **Blackburnian Warbler**, **Chestnut-sided Warbler**, **Bay-breasted Warbler**, **Pine Warbler**, **Connecticut Warbler**, and **Canada Warbler** are rare migrants.

With the exception of the Palm Warbler and Northern Waterthrush, migrating warblers are boreal and frequent the bottomland forest. The Palm Warbler and Northern Waterthrush are ground-loving species. The Palm Warbler frequents shrubby undergrowth of open woods and prairie thickets. The Northern Waterthrush is found in willow thickets along a marsh or river shore. The best area to observe migrating warblers is the Auto Tour Route.

The **Ovenbird** and **American Redstart** are uncommon migrants, however, their summer status remains uncertain. There are infrequent July observations, but no nesting records. Habitat: Bottomland forest.

The **Yellow Warbler** is an uncommon summer resident of the bottomland forest and prairie groves.

The **Common Yellowthroat** is a common summer resident of marshes and thickets.

The best area to observe both resident species is the Auto Tour Route.

The **Kentucky Warbler** is a casual visitor. One summer record on July 23, 1978. Habitat: Bottomland forest understory.

Status for the **Yellow-breasted Chat** is unknown. There are no recent records of this species in any season.

### **Meadowlarks, Blackbirds and Orioles** (Family Icteridae)

The **Bobolink** is a common summer resident. Birds arrive in late-April and remain until September. Habitat: Prairies. Observation area: County road 15, along CSAH 7 and the South boundary road.

The **Orchard Oriole** is an uncommon summer resident. Birds arrive in May and remain through August. Habitat: Thickets and wooded edges of the prairie and bottomland forest. Observation area: Auto Tour Route and Low-flow access.

### **Tanagers** (Family Thraupidae)

The **Scarlet Tanager** is a rare migrant, most often seen during May in the bottomland forest. Observation area: Auto Tour Route.

### **Grosbeaks, Finches, Sparrows and Buntings** (Family Fringillidae)

The **Cardinal** is a rare permanent resident of the bottomland forest. Most records are in the spring (March through May) and in winter. Observation area: Auto Tour Route.

The **Indigo Bunting** is an uncommon summer resident. Singing males are heard and seen in May and June. A gradual fall exodus occurs in August and September. Habitat: Oak savannah and bottomland forest openings. Observation area: Auto Tour Route.

The **Dickcissel** is an uncommon to common summer resident of the prairie. Birds arrive in early-May and remain until August. Observation area: County road 15, along CSAH 7 and the South boundary road.

The **Purple Finch** is a rare migrant and winter visitant. Most observations occur in late-fall (November) and winter (December). Habitat: Shrub growth in the bottomland forest and prairie.

The **Common Redpoll** is an uncommon migrant and winter visitant. Numbers increase during invasion years. Most records are from November through March. Habitat: Shrub growth and weeds of bottomland forest openings and prairie. Observation area: Auto Tour Route.

The **Pine Siskin** is an erratic winter visitant. Winter records are scarce. Habitat: Bottomland forest. Observation area: Auto Tour Route.

The **American Goldfinch** is common in all seasons. Winter numbers fluctuate with availability of wild food sources and snow cover. Habitat: Prairie, oak savannah, and bottomland forest. Observation area: Auto Tour Route.

The **Rufous-sided Towhee** is an irregular to very rare migrant. There are two spring records (late-April and early-May). Habitat: Understory, bottomland forest and prairie groves.

The **Lark Bunting** is an occasional to rare spring migrant. There are two spring records (early-May), and no fall records. Habitat: Prairie. Observation area: Along CSAH 7 and the South boundary road.

Status of the **Henslow's Sparrow** is unknown. There are two spring records (mid-May). Habitat: Wet sedge or grassy meadows. Observation area: Both records occurred in the Auto Tour Route.

The **Le Conte's Sparrow** is a rare to uncommon migrant. Most observations occur in late-April and May. Habitat: Marsh edges. Observation area: Shoreline of the East and West pools.

Status of the **Lark Sparrow** is uncertain. There is one spring record (early-May) and two fall records (early-September). Habitat: Prairie.

The **Harris' Sparrow**, **White-crowned Sparrow**, **White-throated Sparrow**, and **Fox Sparrow** are common migrants.

The **Lincoln's Sparrow** is an uncommon migrant.

Migrant sparrows frequent the understory and shrub growth of the bottomland forest and prairie groves and thickets. The **Harris' Sparrow** and **Fox Sparrow** are the earliest spring migrants, arriving in early-April. Other migrant species arrive in late-April and early-May. Spring migrants usually depart by late-May. Most fall migrants are seen from September through November. Observation area: Auto Tour Route.

The **Savannah Sparrow**, **Grasshopper Sparrow**, **Clay-colored Sparrow**, **Field Sparrow**, and **Swamp Sparrow** are uncommon to common summer residents. The **Grasshopper Sparrow** and **Swamp Sparrow** are more difficult to find. The **Savannah Sparrow** and **Grasshopper Sparrow** are confined mostly to open prairie and meadows. The **Clay-colored Sparrow** and **Field Sparrow** prefer prairies with scattered trees. The **Swamp Sparrow** frequents marshes.

The **Lapland Longspur** is a common to abundant migrant and winter visitant of the prairie. Migrants are mostly seen in April and from October through November. There are winter records only for December and January.

The **Smith's Longspur** is an occasional to rare migrant. There are only spring records (late-April). Habitat: Prairie.

The **Chestnut-collared Longspur** is a rare migrant of the prairie. Birds are usually observed in late-April, with scarce fall records.

The **Snow Bunting** is a common migrant and common to abundant winter visitant of the prairie. During winter large flocks are seen along roadsides or in fields.

**Route 2, Box 165, Dawson, MN 56232**

# THE IMPACT OF GOSHAWK PREDATION UPON RUFFED GROUSE\*

Gordon W. Gullion

Since 1956 we have studied the relationship between forest management practices and Ruffed Grouse populations on the 1362 ha Cloquet Forestry Center, a University of Minnesota College of Forestry research and teaching facility 25 km west of Duluth. During at least 15 of these 25 years one or more pairs of Goshawks have nested on the study area (Gullion 1981a). Ruffed Grouse, snowshoe hares, and red squirrels provide the primary food resources for these raptors and the abundance of these prey species largely determines the number of Goshawks this forest can support.

Predation has had an interesting impact upon the Cloquet Forest grouse population. In an earlier paper (Eng and Gullion, 1962) we described a "circle of suppression" having a radius of about 0.8 km around the nesting area occupied by these raptors. From 1956 to 1967 the Goshawks effectively suppressed Ruffed Grouse use of this 200 ha area, and the density of breeding male grouse remained well below that found elsewhere on the Cloquet Forest. As Dr. Paul Errington surmised in his book "Of Predation and Life" (1967, p.116-118) the quality of the habitat for Ruffed Grouse within this circle of suppression was rather poor. But there were many hectares of similar habitat farther from the Goshawk nesting area occupied by Ruffed Grouse each spring during this period. Compared to other parts of

the Cloquet Forest the Ruffed Grouse density within this circle ranged from zero to 44% of the mean density of grouse spring breeding populations outside the circle of suppression from 1956 to 1967.

It should be noted that there was little really good grouse habitat on the Cloquet Forest prior to 1969-70, so the difference between habitat quality inside and outside the circle was not as great then as it has been in recent years. Also, I wish to point out that we use the presence of drumming males as our index to the density of both breeding males and females. Although Ruffed Grouse do not form pairs, all of our data consistently indicate that there is at least one female sharing the same coverts with each drumming male. During the years when there is a substantial percentage of non-drummers in the spring population there may be 1.3 to 1.5 hens per known drummer (Gullion, 1981b).

During the 1967 nesting season the female Goshawk was shot on or near her nest and the long history of persistent nesting activity was interrupted (Gullion, 1981a). In 1968 Ruffed Grouse responded by successfully establishing at least six territories or activity centers within the former circle of suppression, with two of them between former Goshawk nesting sites. Since 1968 the grouse density within the circle of suppression has consistently been at least double that recorded while Goshawks were nesting there. In 1972 (a peak year for Ruffed Grouse) the breeding grouse density within the circle was about

\*A paper presented at the 1980 annual meeting of the Raptor Research Foundation, Duluth, Minnesota, October 13, 1980.

the same as the mean density elsewhere on the Cloquet Forest.

### **Goshawks Return**

Although we did not find them, the Goshawks evidently used a nest on the Cloquet Forest in 1974 that was used again in 1978. They also nested at Cloquet in 1979 and 1980.

The resumption of continued nesting by Goshawks after nearly a decade of absence has had an impressive impact upon the Ruffed Grouse population. When these predators are present, poor coverts which were habitable during their absence become untenable. This means a short-life span and rapid turnover for inferior Ruffed Grouse unable to compete successfully for secure territories in young aspen stands.

While Goshawks were absent from the Cloquet Forest we had many Ruffed Grouse breeding in low quality sites dominated by pines, firs, and spruce where aspen was present. This density reached nearly a drummer per 7 ha in 1971-72, or about one-third the density reached during this period in better quality aspen stands at Cloquet. But by 1980, with the Goshawks feeding young, the density in the conifer dominated forests declined to about a drummer per 36 ha, while breeding grouse densities in good aspen habitats remained at a drummer per 4 ha.

### **Predation Influences Color-phase Composition**

Not only has Goshawk predation had an impact on the quality of habitats Ruffed Grouse find secure but it has also markedly influenced the color phase composition of the Cloquet grouse population.

As reported earlier (Gullion and Marshall, 1968:140) during the period from 1956 to 1966 red-phased male grouse, once established on drumming logs, had a significantly shorter mean life expectancy ( $p < 0.005$ ; 275 df) than gray-phased males in the same forest. Based on a sample of 277 birds, the

longevity for red birds was 11.4 months as compared to 16.6 months for the gray males. Also, red birds tended to be in the minority on this study area during the period prior to 1968 while Goshawks nested here.

But the situation changed when the Goshawks were no longer nesting at Cloquet. Red-phased Ruffed Grouse became the longest lived and soon became dominant in the population, representing as much as 55% of the breeding males in 1976. The overall longevity for red birds increased to 14.5 months from 1968 to 1976, as compared to 13.0 months for the grays, based on the records of 503 males. During six of the nine years from 1968 to 1977 survival among red-tailed grouse was better than among the gray-tailed birds.

With the re-establishment of Goshawk nesting on the Cloquet Forest in 1978 the balance has tipped the other way. In 1978, 1979, and 1980 the percentage of red-phased males in the population has dropped to 38, 39 and 32 respectively, and survival among the reds has been less than among grays for two of the last three seasons. Not a single truly red male survived from 1979 to 1980! The "red" birds which did survive to 1980 all belonged to the usually shorter lived brown colored birds.

### **Goshawk Predation A Major Cause of Grouse Mortality**

While we have recovered the remains of only 256 Ruffed Grouse killed by Goshawks in 25 years our data indicate that the take by these raptors on this 1362 ha forest varies between 270 and 315 grouse annually, or about a grouse per day from mid-September to mid-June. This is from a population that has varied between about 500 to 800 birds on the Forest each fall. Of the 412 known predation losses assigned to a specific predator 59% have been taken by Goshawks.

In 1978 the Goshawks selected a nesting area 1.2 km southwest of the general area used from 1956 to 1967.

Whether or not prey availability influenced their choice of a nesting site is problematical. Certainly the female could not have selected the site on the basis of the prior year's grouse population, for she was still in immature plumage when she nested and hatched three chicks in 1978. In any event, this pair chose a site central to the second most abundant breeding Ruffed Grouse population on the Cloquet Forest. There was only one other site on the Forest where they could have nested and had more breeding Ruffed Grouse within a 1 km radius. But the grouse habitat around this other site consisted largely of high-density aspen stands 15 to 20 years old in which these grouse are quite secure. The Goshawks selected an area where conifers are present in or near most of the grouse activity centers.

In a four-week period in late May and early June 1978 we recovered in the vicinity of the Goshawk nest 11% of the breeding male Ruffed Grouse banded on the Cloquet Forest in April and May 1978. This known kill represented 34% of the grouse banded within a 1 km radius of the nesting site in 1978, and undoubtedly there were other birds killed which we did not find.

As effective as Goshawks are as grouse predators, their impact upon the prey population can be lessened if the grouse have the proper type of habitat for cover. This means good vertical cover (Gullion, 1970, 1972), with adequate food resources within sight, and few if any pines or other mature

conifers overhead or nearby. Where these conditions are met we have recorded drumming males living two years or longer within 400 m of Goshawk nesting sites and breeding male densities of 25 birds per 100 ha nearby. In 1971 one male on the Bob Lake portion of our study area survived the season using a drumming log in good cover which could be seen from the occupied Goshawk nest.

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# THE FALL SEASON (Aug. 1 thru Nov. 30, 1980)

Richard Ruhme, Don Bolduc, Oscar Johnson

Notes taken concerning the weather for the month of August show that it rained for five consecutive days from the 18th through the 25th and every other day otherwise. It would seem that much rain would have moderated the heat wave of summer, but not so, as the temperature was 4° above normal, and as expected, the precipitation was .21 inches above normal.

With more rain the first part of September and a temperature of 63°F on the ninth, the heat wave was broken. Frost occurred on September 23rd and 26th. Temperatures averaged .5°F below normal and the precipitation was .95 inches above normal.

October was average as far as the temperature was concerned except for the three days of Indian Summer, the 8th, 9th and 10th of the month. Precipitation was 1.07 inches; normal is almost two inches. Snowfall occurred on the 17th, 23rd and 27th. Then on the 31st the temperature reached a high of 55°F!

Precipitation for November was .9 inches below normal with the temperature about normal. There was a record high of 58°F on the 2nd. On the 8th snow fell and covered the ground in the north probably to remain the rest of the winter.

For this period we had 67 reports from 86 observers and 34 counties. A total of 287 species were reported.

In contrast to the reported "lackluster" spring migration, the fall migration was a very wild, exciting and interesting one. Everyone will surely admit that the "bird of the year" was

the **YELLOW-BILLED LOON**. Brief searching of back issues of **AMERICAN BIRDS** reveals only four other inland records: Alberta, California, Illinois and Wyoming.

Duluth was the place to be last fall. Living there may have its advantages! For example: White Pelicans nearby in Aug. and Oct.; Cattle Egret, Oct.; Harlequin Duck, Sept., Oct., Nov.; Swainson's Hawk, Oct.; Gyrfalcon, Nov.; Peregrine Falcon, Whimbrel, Sept.; Red Phalarope, Oct.; Pomarine, Parasitic and a rare Long-tailed Jaeger in Oct.; Thayer's, Franklin's and a Sabine's Gull, Boreal Owl, Oct.; Townsend's Solitaire, Oct.; Sprague's Pipit, Sept.; Black-throated Sparrow, Oct.; Smith's Longspur; Summer Tanager; and a very late Cape May Warbler the last of November at Stoney Point. Be sure you read "The Ides of October" by Kim Eckert in the **LOON**, Vol. 52, No. 4, p. 143.

For the remainder of the state, there was an ibis, (species?) in Lyon County, an out-of-range Surf Scoter in Polk County, a White-winged Scoter in Grant County, Prairie Falcons in Clay, Wilkin and Traverse Counties, Monk Parakeet in Rice County, Rufous Hummingbird in Hennepin County, Northern Three-toed Woodpecker in Cook County, White-eyed Vireo in Dakota County in October, a very late Solitary Vireo at Wood Lake Nature Center, Hennepin County in November, and an exceptionally early Blackpoll Warbler in August in Anoka County.

A few highlights from Hawk Ridge indicate that the numbers of Cooper's Hawks, Merlin's and Golden Eagles

were up, but the numbers of Broad-winged Hawks were down.

From personal observations and reports of others, it is evident that numbers of Red-breasted Nuthatches are nearing a peak again as happened a few years ago.

A small wave of warblers was seen on August 14, 23 and 27. On September 8, 9 and 10 a noticeable wave of vireos and flycatchers came through. Then on September 22 another wave of warblers appeared. Sparrows showed up in numbers on the 1st and 14th of October.

There were many dowitcher specie question mark reports this time: is pebble tossing a lost art or a no-no? Some of the observers put a check mark in the left margin to indicate that the species is present in their home-base county much of the time but has no unusual date or number. This has been helpful in tabulating a more complete list of the number of counties in which the bird has been seen.

#### **Common Loon**

Late north 11-10 Hubbard HJF, 11-17 Cass and Itasca KE, 11-28,30 Lake KE, JG, LW; late south 11-14 Hennepin JC, 11-15 Meeker RT, 11-16 Wabasha JSD.

#### **YELLOW-BILLED LOON**

11-16 Itasca (L. Winibigoshish) TS, 11-26 Duluth KE, JG, 11-27 Two Harbors TS, 11-28 Two Harbors, Burlington Bay KE, last sighting.

#### **Red-throated Loon**

11-1 Otter Tail GMO.

#### **Red-necked Grebe**

Late north 10-4 Mahnomen JC, 10-7 St. Louis KE, 10-13 Cass LLH; late south 8-21 Anoka KL. Peak August (no date) Marshall (100+) ANWR.

#### **Horned Grebe**

Early south 10-3 Nicollet JCF, 10-26 Stearns NH; late north 11-11 Aitkin EC, 11-24 St. Louis KE; late south 11-15 Hennepin AJ and Meeker RJ.

#### **Eared Grebe**

Early south 9-27 Nicollet JCF; late dates 10-12 Cass LLH, 10-28 Marshall KSS; peak August (no date) Marshall (400) ANWR.

#### **Western Grebe**

Late north 9-21 Clearwater RJ; late south 9-27 Freeborn RJ, 10-10 Pope NH, 11-14 Nicollet JCF.

#### **Pied-billed Grebe**

Late north 10-5 Pennington KSS, 10-9 Itasca JC, 10-12 Mahnomen JC.

#### **White Pelican**

Late north 8-25 Grant SM, 10-28 Duluth KE, many obs.; late south 10-1 Big Stone SM, 10-4 Nicollet JCF, 10-21 Olmsted JF; peak August (no date) Marshall (500) ANWR.

#### **Double-crested Cormorant**

Late north 11-2 Otter Tail DS, 11-22 Mille Lacs BL; late south 11-8 Houston JP, 11-9 Anoka KL; peaks August (no date) Marshall (500) ANWR, 10-21 Nicollet (400) JCF.

#### **Great Blue Heron**

Late north 11-13 Clay LCF, 11-15 Lake of the Woods TS, 11-25 Polk fide KSS; late south 11-15 Houston FL, 11-19 Hennepin SC, 11-30 Rice KJ.

#### **Northern Green Heron**

Late north 9-9 St. Louis KE, 9-28 Clay TL, 10-4 Beltrami JG; late south 10-19 Anoka KL and Dakota MW, 10-26 Ramsey BL.

#### **Cattle Egret**

8-14 Anoka JCF, 10-17 Duluth D. Schimpf fide KE.

#### **Great Egret**

Late north 8-13 Marshall ANWR, 8-15 Beltrami JG, 9-20 Cass RJ; late south 10-8 Ramsey BL, 10-19 Wabasha JP, 11-28 Dakota RBA.

#### **Black-crowned Night Heron**

Late north 9-12 St. Louis LJF, 9-17 Traverse SM; late south 10-7 Anoka KL, 10-21 Ramsey BL, 10-31 Hennepin ES.

**Least Bittern**

8-6 Kandiyohi RH, 9-5 Nicollet JCF, 10-8 Anoka RBA.

**American Bittern**

Late north 9-14 Itasca TL, 10-4 Cass NH, 10-15 Duluth RJ; late south 8-31 Watonwan JEB, 9-20 Sherburne OJ, 10-4 Nicollet JCF.

**IBIS (sp?)**

10-10 Lyon, B. Meyer & T. Van Moer fide KE.

**Whistling Swan**

Early north 9-16 Marshall ANWR, 10-18 St. Louis LW; early south 10-18 Houston JP, 10-26 Wabasha WDM; late north 11-13 Crow Wing EC, 11-17 Cass, Itasca KE; late south 11-30 JD, WDM, Houston FL; peak 11-29 Wabasha (6,000) OJ.

**Canada Goose**

Peak at Lac Qui Parle (no date) 74,000. Reported from 28 counties.

**White-fronted Goose**

11-16 Olmsted JF and J. Heather.

**Snow Goose**

Early north 9-1 Grant SM, 9-2 St. Louis KE; early south 9-21 Olmsted JEB, 9-27 Freeborn RJ; late north 11-10 St. Louis KE, 11-23 Wilkin FKS; late south 11-30 Wabasha JD and Waseca JCF peak 10-23 Marshall (1,500) ANWR.

**Mallard**

Reported from 23 counties.

**Black Duck**

Late north 10-4 Cass NH, 10-10 St. Louis JG, 11-14 Cook KMH; late south 11-15 Meeker RJ, 11-29 Dakota MW and Wabasha OJ.

**Gadwall**

Late north 10-6 Pennington KSS, 11-1 Mille Lacs DB, OJ, 11-2 Otter Tail DS; late south 11-18 Houston JP, 11-19 Hennepin ES, 11-20 Wabasha OJ; peak 10-15 Marshall (26,000) ANWR.

**Pintail**

Late north 9-28 Becker SM, 10-12 Otter Tail SM, 11-3 Grant NH; late south 11-22 Brown RJ, 11-29 Wabasha OJ, 11-30 Waseca JCF.

**Green-winged Teal**

Late north 10-18 Aitkin WN, 10-19 Wilkin SM, 11-3 Grant NH; late south 11-8 Carver RJ, 11-9 Wabasha JP, 11-30 Stearns CM.

**Blue-winged Teal**

Late north 10-18 Aitkin WN, 11-1 St. Louis KE, 11-6 Pennington KSS; late south 10-19 Anoka KL, DS, 10-25 Stearns NH, 11-9 Wabasha JP.

**American Wigeon**

Late north 10-6 Pennington KSS, 10-10 Marshall (5,900) ANWR, 10-18 Aitkin WN; late south 11-19 Hennepin ES, 11-29 Wabasha OJ, 11-30 Anoka KL.

**Northern Shoveler**

Late north 10-25 Pennington KSS; late south 11-9 Olmsted JEB, 11-11 Wabasha WDM, 11-30 Waseca JCF.

**Wood Duck**

Late north 10-18 Atkin WN, 10-22 Mille Lacs RJ, 11-6 Pennington KSS; late south 11-15 Houston FL, 11-18 Hennepin AJ, 11-24 Stearns CM.

**Redhead**

Late north 11-1 Aitkin DB, 11-2 Pennington KSS, 11-16 Mille Lacs JP; late south 11-25 Anoka KL, 11-29 Wabasha OJ, 11-30 Blue Earth JCF.

**Ring-necked Duck**

Late north 11-2 Pennington KSS, 11-9 Otter Tail DS and St. Louis KE; late south 11-23 Houston JP, 11-27 Anoka KL, 11-30 Waseca JCF.

**Canvasback**

Late north 10-28 Marshall KSS, 11-1 Mille Lacs DB, 11-22 Otter Tail DS; late south 11-20 Ramsey EC, 11-30 Blue Earth JCF and Wabasha WDM; peak 10-26 Wabasha (4,000) WDM.

**Greater Scaup**

10-18 Aitkin WN, 10-19 St. Louis JG, 10-21 Nicollet JCF, 10-25 Houston JP.

### **Lesser Scaup**

Late north 11-6 Pennington KSS, 11-27 Cook KE, 11-28 Beltrami RJ; late south 11-23 Houston JP, 11-29 Wabasha OJ, 11-30 Le Sueur JCF.

### **Common Goldeneye**

Late north 11-28 Beltrami RJ, Lake LW, Mille Lacs JB; early south 10-28 Le Sueur JCF, 11-6 Anoka KL, 11-9 Ramsey RJ.

### **Bufflehead**

Early north 10-5 Mahnomen JC, 10-7 Cook KMH; early south 10-4 Hennepin OJ, 10-5 Anoka KL; late north 11-27 Cook KE, 11-28 Beltrami RJ and Mille Lacs JB; late south 11-29 Wabasha OJ, 11-30 Anoka KL.

### **Oldsquaw**

10-10 St. Louis Dick Green, 10-21 Cook KMH, 10-30 Cook (60) KE, 11-13 Aitkin KE, 11-16 Aitkin LP, Crow Wing WN, Mille Lacs JP, 11-27 St. Louis KE.

### **Harlequin Duck**

Nine reports from 9-10 through 11-29, all from Duluth, St. Louis or Lake KE, RJ, SM, Dean Schneider, others.

### **White-winged Scoter**

9-21 St. Louis JG, 10-5 St. Louis KE, 10-15 Duluth RJ, Cook KMH, KE, 10-17 Grant (shot) Don Gruening, 10-18 St. Louis (6) WN, 10-25 St. Louis JG, 10-30 Cook KE, 11-1 Aitkin DB, OJ, 11-4 Cook KMH, 11-27 Cook KE.

### **Surf Scoter**

9-9 Cook KMH, 10-4 St. Louis KE, 10-12 Mille Lacs JB, 10-15 Duluth KE, JG, RJ, 10-18 St. Louis WN, 10-24 Polk Greg Lambeth, 11-8 Hennepin OJ, 11-15 Hennepin RJ.

### **Black Scoter**

9-16 Cook KMH, 10-4 St. Louis LW, 10-15 Duluth KE, JG, RJ, 10-18 St. Louis WN, 10-20 Hennepin RBA, 10-23 Mille Lacs EC, 10-30 Cook KE, 11-1 Crow Wing DB, OJ, 11-4 Cook KMH, 11-28 Lake KE.

### **Ruddy Duck**

Late north 9-29 through 10-2 St.

Louis KE, 10-6 Pennington KSS; late south 11-1 Houston JP, 11-15 Wright RJ, 11-19 Faribault JCF.

### **Hooded Merganser**

Late north 11-1 Mille Lacs OJ, DB, 11-3 Itasca TL, 11-27 St. Louis KE; late south 11-19 Stearns NH, 11-21 Anoka KL, 11-30 Le Sueur JCF.

### **Common Merganser**

Late north 11-21 Itasca TL, 11-28 Beltrami RJ and St. Louis LW; peak 11-16 Wabasha (5,000) JSD.

### **Red-breasted Merganser**

Early south 10-29 Faribault JCF, 11-2 Freeborn RJ, 11-12 Waseca JCF; late north 11-1 Aitkin DB, OJ, 11-27 St. Louis KE, 11-28 Mille Lacs JB.

### **Turkey Vulture**

Hawk Ridge total 243 (last year 492); late north 9-28 Cass TCS, 10-2 Morrison EC, 11-2 St. Louis LLH; late south 10-7 Mower RRK, 10-8 Houston EMF, 10-18 Blue Earth JCF.

### **Goshawk**

Hawk Ridge total 250 (last year 326); 8-11 Lake SW, 9-14 St. Louis RJ, 10-5 Wright ES, 10-21 St. Louis JG, 10-27 Cook KMH, 10-31 St. Louis JG, 11-30 Wabasha JD.

### **Sharp-shinned Hawk**

Hawk Ridge total 11,127 (last year 10,795); late north 10-12 Traverse SM, 10-15 St. Louis JG, 11-12 Hubbard HJF; late south 11-19 Mower RRK, 11-24 Hennepin OJ, 11-29 Houston FL.

### **Cooper's Hawk**

Hawk Ridge total 117 (a record high); late north 10-6 Marshall NH, 10-19 Itasca TL, 10-31 Beltrami JC; late south 10-5 Wright ES, Olmsted JEB, 11-30 Fillmore KSS.

### **Red-tailed Hawk**

Hawk Ridge total 3,941 (last year 3,196); also reported from 27 counties.

### **Red-shouldered Hawk**

8-24 Otter Tail RBA, 10-8 Wabasha OJ, 11-1 Houston JP, 11-29 Wabasha OJ.

### **Broad-winged Hawk**

Hawk Ridge total 16,307 (second lowest recorded); late north 9-20 Aitkin WN, Anoka BA (587) and Cass RJ, 10-12 St. Louis LW; late south 10-4 Houston JP, 10-8 Sibley OJ, 10-12 Rice KJ.

### **Swainson's Hawk**

Late north 9-27 Clay TL, 10-1 Grant SM, **10-18 St. Louis (Hawk Ridge)**; late south 9-7 Mower RRK, 9-20 Olmsted JEB, 10-26 Martin EB.

### **Rough-legged Hawk**

Hawk Ridge total 389 (last year 409); early north inland 9-10 Beltrami JC, 10-7 Itasca JC, 10-10 Pine RJ; early south 9-5 Washington RBA, 10-5 Olmsted JEB, 10-10 Anoka OJ.

### **FERRUGINOUS HAWK**

10-20 Blue Earth EB.

### **Golden Eagle**

Hawk Ridge total 10 (last year 19); also reported 9-21 Otter Tail GMO, 10-5 Otter Tail SM, 10-11 Park Point KE, 10-12 Anoka KL and Le Sueur HC, 10-17 Marshall ANWR, 10-19 Otter Tail GMO and Winona JP, 10-22 Benton EC, 11-29 Wabasha OJ, 11-30 Winona LLH.

### **Bald Eagle**

Hawk Ridge total 82 (last year 86); late north 11-29 Aitkin WN, 11-30 Itasca TL and St. Louis (5) Dick Green; early south 10-7 Dakota SC, 10-10 Nicollet JCF, 10-20 Olmsted JF.

### **Marsh Hawk**

Hawk Ridge total 582 (last year 562); late north 11-12 Morrison EC, 11-16 St. Louis KE, LW, 11-30 Aitkin WN.

### **Osprey**

Hawk Ridge total 157 (last year 193); late north 9-28 Cass TOS, 10-6 Aitkin WN, 10-22 Crow Wing EC; late south 10-5 Wright ES, 10-6 Hennepin EC, 10-17 Washington DS.

### **Gyrfalcon**

10-11 Duluth fide Pat Redig, 11-30 St. Louis (Sax-Zim) KE.

### **PRAIRIE FALCON**

8-17 Wilkin SM, 9-3 Clay SM, 9-16 Traverse SM, 10-19 and 29 Wilkin SM.

### **Peregrine Falcon**

Hawk Ridge total 15 (last year 14); 8-22 Lyon HK, 8-30 St. Louis JG, 9-5 Cook KMH, 9-9 Lake of the Woods D. Struthers, 9-19 Nicollet JCF, 9-24 Otter Tail RBA, 9-25 Hennepin RBA, Duluth KE, 9-26 Polk KSS, 9-27 Anoka RBA, Duluth KJ, 9-30 Anoka GP, 11-11 Anoka RBA, 10-14 Anoka, one found dead, probably shot, J. Wolfe.

### **Merlin**

Hawk Ridge 46 (highest recorded); late north 9-26 Cook KMH, Polk KSS, 11-1 St. Louis KE, 11-30 Clay LCF; late south 8-24 KL, 10-1 Stearns NH.

### **American Kestrel**

Hawk Ridge total 781 (last year 944); late north 10-10 St. Louis LLH, 11-6 Pennington KSS, 11-25 Clay LCF.

### **Spruce Grouse**

8-7 St. Louis SS, seen frequently August TL, 8-8 Itasca DB, 9-23 Cook RBA, 10-3 Hubbard TCS.

### **Ruffed Grouse**

Reported (no date) from **Clay TL**. Also reported from 22 additional counties.

### **Sharp-tailed Grouse**

8-14 Aitkin WN, 8-22 Aitkin and St. Louis TCS, 10-12 Cass LLH, Itasca DB, 11-25 Carlton TCS.

### **Ring-necked Pheasant**

Reported from 15 counties.

### **Gray Partridge**

Reported from 15 counties including **Angle Inlet, Lake of the Woods Co.**

### **Sandhill Crane**

Late date 10-8 Marshall (1,100). Also reported from Anoka, Duluth, Itasca, Kittson, Lake, Red Lake, Sherburne, Wilkin counties.

### **Virginia Rail**

8-6 Kandiyohi RH, 8-10 Hennepin VL and Isanti RJ, 8-21 Blue Earth JCF, 8-30 Hennepin OJ, 9-11 and 9-21 Wright ES.

**Sora**

Late north 8-27 Cook KMH, 10-5 Otter Tail GMO, 10-6 Pennington KSS; late south 9-17 Big Stone SM, 9-27 Nicollet MF, 10-11 Le Sueur HC.

**Common Gallinule**

8-8 Nicollet JCF, 10-5 Wabasha WDM, 10-10 Dakota JD, 10-14 Wabasha WDM.

**American Coot**

Late north 11-12 Mahnomen JC, 11-13 Itasca JC, 11-17 Cass KE; late south 11-27 Dakota MW, 11-30 Anoka KL, Wabasha JD and Waseca JCF; peak 9-20 Beltrami RJ (1,000s).

**Semipalmated Plover**

Late north 8-27 Otter Tail SM, 9-13 Duluth BDC, 9-14, 15, St. Louis KE, LJF.

**Piping Plover**

8-9 Wilkin GMO, 8-27 Stearns NH.

**Killdeer**

Late north 10-3 Clay LCF, 10-5 Mahnomen JC, 10-20 St. Louis LLH; late south 10-22 Houston JP, 11-9 Olmsted JEB, 11-28 Nicollet JCF.

**American Golden Plover**

Early north 9-9 Cook KMH, 9-11 St. Louis KE; early south 8-17 Anoka KL, 9-6 Houston JP; late north 10-23 St. Louis KE, 10-30 Pennington KSS, 11-5 Otter Tail GMO; late south 11-21 Nicollet JCF.

**Black-bellied Plover**

Early north 8-11 St. Louis KE, 8-24 Cook KMH; early south 8-24 Lincoln HC, 10-6 Stearns RJ; late north 11-6 Pennington KSS, 11-9 Duluth KE; late south 10-20 Rice KJ, 11-1 Goodhue BL.

**Ruddy Turnstone**

9-3 Cook KMH, 9-6 Crow Wng WN, all other reports from St. Louis, late date 9-18 KE.

**American Woodcock**

Late north 10-16 Cass TL, 10-19 Itasca AT, 10-25 St. Louis LLH; late south 10-12 Nicollet JCF, 10-15 Anoka RJ, 10-19 Washington DS.

**Common Snipe**

Late north 10-12 Mahnomen JC, 10-24 Otter Tail GMO, GW, and St. Louis LLH; late south 11-9 Winona JP, 11-11 Mower RRR, 11-20 Nicollet JCF.

**WHIMBREL**

9-9 through 14 Duluth, many observers.

**Upland Sandpiper**

8-6 Redwood LJF, 8-22 Clay LCF, 9-7 Redwood LJF.

**Spotted Sandpiper**

Late north 9-22 Lake SW, 9-30 Pennington KSS, 10-17 St. Louis KE; late south 9-4 Olmsted JEB, 9-21 Stearns NH, 10-3 Nicollet JCF.

**Solitary Sandpiper**

Late north 9-6 St. Louis JG, 9-12 Cook KMH, 9-18 Lake SW; late south 9-4 Olmsted JEB, 9-18 Hennepin ES, 9-21 Dakota MW.

**Willet**

8-23 Otter Tail GMO.

**Greater Yellowlegs**

Late north 10-18 St. Louis KE, 11-2 Pennington KSS, 11-15 Lake of the Woods TS; late south 11-11 Mower RRR and Nicollet JCF, 11-23 Dakota RBA.

**Lesser Yellowlegs**

Late north 9-26 Cook KMH and Pennington KSS, 10-28 Otter Tail GMO, 10-29 Hubbard HJF; late south 10-10 Hennepin OJ, 10-19 Winona JP, 10-24 Nicollet JCF.

**Red Knot**

9-13, 14 St. Louis BDC, Paul Ege-land, JP.

**Pectoral Sandpiper**

Late north 10-31 Cook KE, 11-2 Polk DS, 11-6 Pennington KSS; late south 11-7 Nicollet JCF, 11-11 Mower RRR, 11-15 Rice Ray Glassel.

**White-rumped Sandpiper**

8-10 Clay LCF; 10-5 St. Louis KE; only reports.

### **Baird's Sandpiper**

Early north 8-4 St. Louis KE, 8-23 Lake SW, 9-4 St. Louis JG (30); early south 8-1 Nicollet JCF, Olmsted JEB, 8-2 Dodge RJ, 8-15 Dakota SC; late north 10-7 Otter Tail GMO, 10-18 St. Louis LW, 10-23 KE; late south 9-19 Nicollet JCF.

### **Least Sandpiper**

Early north 8-4 St. Louis KE, 8-9 Wilkin GW; early south 8-1 Olmsted JEB, 8-2 RJ; late north 9-22 Pennington RJ, 10-26 KSS; late south 9-12 Nicollet JCF, Anoka KL, 10-19 Winona JP.

### **Dunlin**

Early north 8-16 Pennington KSS; early south 8-29 Anoka KL; late north 10-18 St. Louis WN, LW, 10-23 KE; late south 10-18 Olmsted JF, 10-24 Nicollet JCF, 10-25 Rice RJ.

### **Semipalmated Sandpiper**

Early north 8-9 St. Louis KE, Wilkin GW, 8-11 Cook KMH; early south 8-1 Olmsted JEB, 8-5 Hennepin OJ, 8-8 Nicollet JCF; late north 9-13 St. Louis BDC, LW, 9-14 LJF; late south 9-6 Stearns RJ, 9-9 Olmsted JEB, 10-4 Washington BL.

### **Western Sandpiper**

Only reports: 8-2 Rice RJ, 8-16 DB, 8-5 Hennepin OJ, 8-9 Lyon HK, 8-9, 28 St. Louis KE, 8-29 LW.

### **Sanderling**

Early north 8-4 St. Louis KE; early south 8-2 Washington DMB, 8-3 Hennepin OJ; late north 10-15 St. Louis JG, RJ, LW, 10-16 OJ, 10-18 WN, 11-9 KE; late south 9-2 Mower RRK, 9-3 Washington DS.

### **Short-billed Dowitcher**

8-2 Dodge RJ, 8-6 Olmsted JEB, 8-21 Blue Earth JCF.

### **Long-billed Dowitcher**

8-21 Stearns NH. Dowitcher sp? 8-24 Dakota VL, 9-30 Pennington KSS, 10-7 Otter Tail GMO, 10-12, 19 Winona JP, 11-7 Nicollet JCF.

### **Stilt Sandpiper**

Early north 8-9 St. Louis KE, Wilkin GW, 8-16 Aitkin JB; early south 8-8 Nicollet JCF, 8-16 Rice DB; late north 9-3 St. Louis KE, 9-9 Cook KMH; late south 9-2 Stearns NH, 9-6 RJ.

### **Buff-breasted Sandpiper**

Early north 8-9 St. Louis KE, 8-29 Lake JG; early south 8-2 Anoka KL, 8-10 SC, 8-26 Stearns NH; late north 9-23 Cook NMH, 9-14 St. Louis LJF, 10-18 WN.

### **Marbled Godwit**

8-18 Pennington KSS, 8-23 Otter Tail GMO; only reports.

### **RED PHALAROPE**

10-15 Duluth RJ, TS, KE, JG, SM, 10-16 DB, OJ, BL.

### **Wilson's Phalarope**

8-9 Wilkin GW, 8-27 Stearns NH, 8-29 Pennington KSS; only reports.

### **Northern Phalarope**

8-9 Wilkin GMO, GW, 8-16 Rice DB, 9-2 Nicollet JCF, 9-22 Pennington RJ, 9-27 KSS; only reports.

### **POMARINE JAEGER**

10-15 Duluth JG (1 a.), SM.

### **PARASITIC JAEGER**

8-30 Crow Wing RBA, 9-1 Aitkin TS, 9-13 Duluth BDC, 9-14 OJ, DB, 10-10 T. Sordall, 10-15 KE, SM, 10-18, 19 KE (1 dk. phase).

### **LONG-TAILED JAEGER**

10-14 Duluth KE (1 a. lt. phase), 10-15 RJ, JG, SM, TS, 10-16 DB, OJ, BL.

### **Glaucous Gull**

11-2 St. Louis KE, 11-27 TS, also Cook Co. KE.

### **Herring Gull**

Reported from 18 counties. Late north 11-30 St. Louis LW.

### **Thayer's Gull**

10-15 St. Louis JG (1 im), KE, RJ, SM, 10-30 (1a 2im), 11-1 (1im), 11-2, 15 (3) KE, 11-26 JG (3im), 10-30 Cook, 11-12 Dakota KE (2im).

### **Ring-billed Gull**

Reported from nine north and 12 south counties; late north 11-29 St. Louis LW, Otter Tail GW; late south 11-30 Waseca JCF.

### **Franklin's Gull**

Reported from 21 counties; late north 10-18 Aitkin WN, 10-31 Otter Tail N. Jackson, 11-3 Grant NH; late south 11-2 Steele RJ, 11-8 Kandiyohi AT, 11-11 Nicollet JCF.

### **Bonaparte's Gull**

Early north 8-4 St. Louis KE, 8-7 Crow Wing DB, 8-11 Clay LCF; early south 8-10 Olmsted JEB, 8-26 Anoka KL; late north 11-13 Aitkin KE, 11-16 Mille Lacs JP, 11-24 BL; late south 11-15 Wright RJ, 11-22 Brown RJ.

### **BLACK-LEGGED KITTIWAKE**

11-20 Aitkin TS (1 found d.o.r.)

### **SABINE'S GULL**

10-12, 13 Duluth TS, JG (1a), KE, D. Schneider.

### **Forster's Tern**

8-16 Pennington KSS, 8-22 Dakota MW, 9-6 Kandiyohi RJ, 9-12 Nicollet JCF, 9-23 Anoka KL, 10-1 Big Stone SM — all reports.

### **Common Tern**

All reports: 8-10 Olmsted JEB, 8-22 Itasca TL, 9-2 Crow Wing WN, 9-11 St. Louis KE, 9-13 OJ, LW, 9-20 Marshall (Agassiz NWR staff), 10-6 Cass NH, 10-19 Chippewa A. Bolduc fide DB.

### **Caspian Tern**

Early north 9-1 Otter Tail TDS, 9-7 Mille Lacs OJ; early south 8-2 Sibley HK, 8-14 Wright ES; late north 10-10 Cass LLH, 10-19 Otter Tail SM; late south 10-4 Sherburne RJ, Goodhue BL, 10-21 Stearns NH.

### **Black Tern**

Late north 8-25 Itasca TL, 9-13 St. Louis BDC; late south 9-13 Washington DS, 10-4 Nicollet JCF, 10-21 St. Cloud NH.

### **Mourning Dove**

Reported from 26 counties; late north 11-29 Aitkin WN; late south 11-30 Olmsted JSD.

### **Yellow-billed Cuckoo**

8-1, 9-24 Houston EMF, 8-8 Olmsted JF, 8-10 Mower RRK, 9-1 Washington RJ, 9-6 Olmsted JEB, 9-12 Nicollet JCF — only reports.

### **Black-billed Cuckoo**

Reported from 17 counties; late north 8-24 Clay LCF, 8-31 Cook KMH; late south 9-16 Anoka JLH, 9-21 Stearns, RH, 10-10 Redwood LJF.

### **Screech Owl**

All reports: 8-20 Ramsey EC, 8-25 Hennepin VL, 10-14 Lac Qui Parle OAE, 11-15 McLeod RJ, 11-22 Redwood LJF, 11-26 Hennepin ES. Also sighted in Cottonwood LF and Washington DS counties — no dates.

### **Great Horned Owl**

Reported from ten north and 14 south counties.

### **Snowy Owl**

Early north 10-28 Aitkin WN, 10-29 St. Louis P. Morton, 10-29 Agassiz NWR (8); early south 11-2 Hennepin RBA, 11-12 Stearns EH, 11-16 Sherburne JP; reports from seven south counties.

### **Hawk Owl**

Early date 8-15 to 9-30 Lake of the Woods S. Dufer, T. Amble, 10-25 Beltrami J. Kingston.

### **Barred Owl**

Reported from 15 counties.

### **Great Gray Owl**

Only reports: 8-15 St. Louis (2a. seen, 2 fledged young heard), 11-16 KE, 10-18 Cook K. Pieper, 11-15 Lake of the Woods TS, 11-26 Aitkin KE, 11-30 WN.

### **Long-eared Owl**

9-23 Cook KMH, 10-11 Mille Lacs R. Olson fide RJ, 10-12 Washington DMB.

### **Short-eared Owl**

9-13 Beltrami JG, 10-11 St. Louis JG, RJ, 10-12 KE (4), 11-15 Lake of the Woods TS (4). From 8-6 to 11-19, 20 were reported at Agassiz NWR, Marshall Co.

### **Boreal Owl**

10-28 Hawk Ridge D. Evans (1).

### **Saw-whet Owl**

All reports: 9-2 Lake SW (1a. 2im), 10-1, 2 Hawk Ridge D. Evans (111), 10-2 Crow Wing JB, 10-21 Washington DMB, 11-4 St. Louis JG, 11-27 Houston RBA, 11-28 Itasca MS.

### **MONK PARAKEET**

Reported late Aug. and early Sept. Rice RBA.

### **Whip-poor-will**

Only reports: 8-31 Anoka KL, 9-8 Houston EMF, 9-21 Itasca A. Bolduc fide DB.

### **Common Nighthawk**

Late north 9-15 St. Louis KE, 9-21 Red Lake RJ, 9-29 Otter Tail SM; late south 9-30 Hennepin DB (30+), Anoka JLH, 10-6 Hennepin OJ, 10-10 Le Sueur. Reported from 11 north and 19 south counties.

### **Chimney Swift**

Late north 9-2 Aitkin WN, 9-13 Clay LCF, 9-27 Otter Tail GW; late south 9-19 Nicollet JCF, 9-24 Hennepin RJ, 9-30 SC, 9-29 Martin EB. Reported from 23 counties.

### **Ruby-throated Hummingbird**

Late north 9-22 Otter Tail GW, 9-16 St. Louis KE, 10-17 JG; late south 10-1 Olmsted JEB, 9-26 Hennepin RJ, 10-2 W. Jiracek.

### **RUFIOUS HUMMINGBIRD**

One bird coming to a feeder in Bloomington, Hennepin County 10-14 RJ, 10-17 DB, OJ, 10-18 AJ, GS, 10-20 VL (see **THE LOON**, Vol. 52, No. 4, p. 187).

### **Belted Kingfisher**

Late north 10-25 St. Louis KE, 10-28 Hubbard HJF, 10-29 Clay TL, 11-29

Otter Tail GW. Reported from ten north and 16 south counties.

### **Common Flicker**

Late north 10-10 Cass LLH, 11-3 Grant NH, 11-30 Clay LCF; late south 11-11 Cottonwood LF, 11-25 Redwood LJF, 11-30 Le Sueur HC, Olmsted KSS.

### **Pileated Woodpecker**

Reported from 17 north and 16 south counties.

### **Red-bellied Woodpecker**

Reported from Aitkin, Morrison, St. Louis and 13 south counties.

### **Red-headed Woodpecker**

Reported from seven north and 15 south counties; late north 11-22 Aitkin BL; peak 9-13 Houston FL (188).

### **Yellow-bellied Sapsucker**

Late north 10-5 St. Louis LLH, 10-6 KE, 10-18 Otter Tail SM; late south 10-4 Dakota JD, Houston EMF, Hennepin OJ. Reported from ten north and 14 south counties.

### **Hairy Woodpecker**

Permanent resident reported from 12 north and 18 south counties.

### **Downy Woodpecker**

Permanent resident reported from 11 north and 21 south counties.

### **Black-backed Three-toed Woodpecker**

All reports: 8-2 Cook R. Huber (M&F), 8-9 Lake SW, 8-24 SS (F), 8-15 Lake of the Woods TG (M&F), 8-16 St. Louis RH, 11-10 SS (F).

### **Northern Three-toed Woodpecker**

Only reports from Cook County 11-15, 21 KMH.

### **Eastern Kingbird**

Late north 9-14 Todd SM, St. Louis JG, 9-16 Pennington KSS, 9-23 St. Louis KE; late south 9-12 Nicollet JCF, 9-15 Houston EMF, 9-27 Stearns NH.

### **Western Kingbird**

One reported 8-27 Clay LCF.

### **Great Crested Flycatcher**

Seven counties north with latest date 9-1 Pennington KSS, 9-2 St. Louis

JG; 11 counties south with late dates 9-19 Nicollet JCF, 10-4 Mower RRK.

### **Eastern Phoebe**

Late north 9-28 Becker SM, 9-30 Otter Tail GW, 10-1 GMO; late south 10-12 Anoka JLH, 10-20 Houston EMF, 11-15 Fillmore A. Risser.

### **Yellow-bellied Flycatcher**

Late north 9-1 St. Louis LW, 9-2 JG, 9-3 KE; late south 9-2 Washington DMB, 9-3 Nicollet JCF, 9-28 Anoka KL.

### **Willow Flycatcher**

8-15 Dakota MW, 8-24 Nicollet JCF.

### **Alder Flycatcher**

8-24 St. Louis LW, 9-2 Aitkin WN, 9-9 Houston EMF.

### **Least Flycatcher**

Late north 9-9 St. Louis LW, 9-10 JG, 9-15 KE, 9-13 Pennington KSS; late south 9-21 Houston EMF, 9-22 Hennepin VL, 9-26 DB.

### **Eastern Wood Pewee**

Late north 9-14 St. Louis LW, 9-18 Itasca TL, 9-20 Pennington KSS; late south 9-21 Wright ES, 9-24 Hennepin SC, 9-29 Houston EMF, 10-8 Olmsted RJ.

### **Olive-sided Flycatcher**

Early south 8-10 Murray LJF, 8-11 Olmsted JEB, 8-15 Hennepin DB; late north 8-31 Crow Wing JB, 9-5 Cook KMH, 9-9 St. Louis KE; late south 9-12 Nicollet JCF, 9-20 Stearns NH, 9-26 Olmsted JEB.

### **Horned Lark**

Late north 11-2 St. Louis LW, 11-4 Cook KMH, Pennington KSS; reports from ten counties south.

### **Tree Swallow**

Late north 9-14 Clay LCF, 9-20 Morrison RJ, 9-23 Otter Tail SM, 10-18 Todd LJF; late south 10-3 Olmsted JEB, 10-4 Anoka DS, 11-7 Nicollet JCF; Peak 9-10 Stearns RH (2,000).

### **Bank Swallow**

Late north 9-1 St. Louis LLH, 9-4 KE, 9-6 Aitkin GS, 9-11 Pennington

KSS; late south 9-6 Stearns RJ, 9-12 Nicollet JCF.

### **Cliff Swallow**

Late north 9-8 St. Louis LLH, 9-27 KE, 9-11 Pennington KSS; late south 9-2 Stearns NH, 9-12 Nicollet JCF.

### **Rough-winged Swallow**

Late north 9-18 Otter Tail GW, 10-4 SM, 10-19 St. Louis LW; late south 9-21 Houston JP, 10-3 Nicollet JCF, 10-4 Hennepin OJ, 10-5 Wright ES.

### **Barn Swallow**

Late north 9-27 Wilkin GW, 9-28 Clay TL, 9-30 Otter Tail SM, 10-31 N. Jackson; late south 9-27 Nicollet MF, 9-28 Wright ES, Le Sueur RJ, 10-10 Nicollet JCF, Redwood LJF, Murray AD.

### **Purple Martin**

Late north 9-13 St. Louis BDC, 9-14 Clay LCF, 9-20 Cass RJ; peak 8-31 Otter Tail DS (2,500); late south 9-15 Redwood LJF, 9-17 Anoka JLH, Hennepin SC, 9-26 Olmsted JEB.

### **Gray Jay**

Reported from Aitkin, Beltrami, Cass, Cook, Itasca, Lake, Marshall and St. Louis counties.

### **Blue Jay**

Reported from ten counties north and 19 south.

### **Black-billed Magpie**

Reported from 18 northern counties; early 8-9 Kittson KSS; 100 present at Agassiz NWR, Marshall Co. during Nov.

### **Common Raven**

Reported from Aitkin, Cass, Cook, Itasca, Lake, Marshall, Pine and St. Louis counties.

### **Common Crow**

Reported from 12 counties north, large no. 10-16 Pine OJ (1,000) and 16 counties south.

### **Black-capped Chickadee**

Common resident of the state reported from 29 counties.

**Boreal Chickadee**

Reported from Cook, Itasca, Lake and St. Louis counties.

**Tufted Titmouse**

11-10,30 Wabasha WDM, 8-1, 11-30 Houston EMF — only reports.

**White-breasted Nuthatch**

Permanent resident reported from 32 counties.

**Red-breasted Nuthatch**

Reported from 18 north and 18 south counties; early south 8-2 Washington DMB, 8-11 Olmsted JEB, 8-18 Stearns NH.

**Brown Creeper**

Early south 8-8 Nicollet JCF, 9-9 Hennepin DB, 9-10 Anoka JLH; late north 10-31 Hubbard HJF, 11-1 Otter Tail GW, 11-10 St. Louis LLH.

**House Wren**

Late north 9-26 Clay LCF, 9-27 St. Louis LW, 10-1 Pennington KSS; late south 10-3 Hennepin ES, Houston EMF, 10-7 Olmsted JEB, 10-8 Dodge RJ, 10-9 Hennepin SC.

**Winter Wren**

Early south 9-21 Houston EMF, 9-22 Hennepin ES, 9-23 VL; late north 10-8 St. Louis JG, 10-18 WN, 10-13 Lake LW; late south 10-24 Nicollet JCF, 10-25 Sibley RJ, 11-25 Redwood LJF.

**Long-billed Marsh Wren**

Late north 9-11 Itasca TL, 9-21 Polk RJ, 10-12 St. Louis RJ, JG; late south 10-5 Nicollet JCF, 10-18 Hennepin SC, 10-26 Houston FL.

**Short-billed Marsh Wren**

Late north 8-7 Aitkin WN; late south 10-1 Hennepin VL, 10-3 Olmsted JEB, 10-19 Anoka DS.

**Mockingbird**

10-10, 16 Cook RBA, 10-18 Wadena RBA, 10-27 Dakota JD.

**Gray Catbird**

Late north 10-3 St. Louis KE, 11-19 Pennington KSS; late south 10-6 Hennepin ES, Houston EMF, 10-19 Anoka RBA, 10-28 Washington DS.

**Brown Thrasher**

Late north 9-9 St. Louis LLH, 9-20 Clay LCF, 11-1 Polk DS; late south 9-22 Hennepin PF, SC, Murray AD, 9-25 Redwood LJF, 10-1 Houston EMF.

**American Robin**

Reported from 28 counties.

**Varied Thrush**

Reported the first week of Nov. in Columbia Heights, Anoka OJ, and 11-8 Mpls. RBA.

**Wood Thrush**

8-4 St. Louis LW, 8-29 Nicollet JCF, 10-4 Olmsted JEB, 10-14 Hennepin VL, 10-16 SC.

**Hermit Thrush**

Early south 8-29 Stearns RH, 9-6 Houston EMF; late north 10-17 Otter Tail SM, 10-18 Cook KMH, 10-19 St. Louis KE; late south 10-12 Hennepin ES, 10-13 Houston EMF, 10-15 Olmsted JF, Cottonwood LF, 10-19 Anoka KL.

**Swainson's Thrush**

Early south 8-10 Washington DMB, 8-18 Hennepin SC, 8-27 DB; late north 9-28 St. Louis KE, 10-3 Clay TL, 10-6 Cook KMH; late south 10-6 Wabasha WDM, 10-11 Houston EMF, 10-21 Ramsey BL.

**Gray-cheeked Thrush**

8-5 St. Louis KE, 8-24 LW, 9-28 KE, 9-10 Olmsted JF, 9-13 Marshall KSS, 9-17 Washington DMB — only reports.

**Veery**

Late north 9-13 Pennington KSS, 9-17 St. Louis LW, 9-23 LLH; late south 9-1 Winona JP, Olmsted JF, 9-6 Hennepin ES, 9-13 SC.

**Eastern Bluebird**

Late north 10-19 Wadena LJF, 10-20 St. Louis JG, 10-21 LW, 10-22 LK; reported from nine other north counties and 15 south.

**TOWNSEND'S SOLITAIRE**

10-19 Hawk Ridge KE (2), 10-26 St. Louis (Stoney Point) GS and (Park Pt.) TS, no date.

**Blue-gray Gnatcatcher**

All reports: 8-8 Nicollet JCF, 8-17 Wright ES, 8-23 RBA, 8-29 ES, 8-24 Olmsted JF, 8-27 Hennepin SC, 9-1 Washington BL, RJ, 9-21 Houston EMF.

**Golden-crowned Kinglet**

Early south 9-16 Anoka JLH, Olmsted JEB, 9-19 Hennepin SC, 9-20 Houston FL, Sherburne OJ; late north 10-31 St. Louis JG, 11-1 TH, 11-29 Otter Tail GW; peak 9-28 Clay TL (70+).

**Ruby-crowned Kinglet**

Early south 8-31 Anoka GS, 8-17 KL, 8-22 Nicollet JCF; late north 10-20 St. Louis JG, 10-26 LW, 11-5 KE; late south 11-1 Olmsted JEB, 11-7 Nicollet JCF, 11-10 Wabasha WDM.

**Water Pipit**

Early north 9-9 Cook KMH, 9-14 St. Louis OJ, 9-18 Lake SW; early south 9-10 Anoka KL, 9-24 Hennepin OJ, 9-27 Waseca RJ; late north 10-18 St. Louis WN, 10-30 Lake KE, 11-6 Pennington KSS; late south 10-10 Anoka OJ, 10-29 Stearns NH.

**Sprague's Pipit**

9-7 Duluth L. Pearson, M. Wigg, 10-18 Wilkin JB.

**Bohemian Waxwing**

Early north 10-6 St. Louis KE, 10-8 LW, 10-15 RJ, 10-15 Cook KMH, 10-22 Crow Wing JB; only south report 11-27 Anoka KL.

**Cedar Waxwing**

Reported from 27 counties.

**Northern Shrike**

Early north 10-10 Crow Wing JB, 10-18 Aitkin WN; early south 10-22 Waseca JCF, 10-26 Anoka KL.

**Loggerhead Shrike**

Two reports: 8-2 Mower RRK, 8-8 Otter Tail SM.

**Starling**

Reported from eight counties north and 11 counties south; with a peak of 10,000 on 10-26 Anoka KL.

**Yellow-throated Vireo**

Two reports north 8-15 Pennington KSS and 9-7 Clay LCF; four reports south 9-6 Pope RJ, 9-10 Houston EMF, 9-12 Nicollet JCF and 9-28 Anoka KL.

**Solitary Vireo**

Late north 9-20 Aitkin WN, 10-6 Cook KMH; late south 10-12 Washington DS, 11-15 Hennepin Paul Egeland.

**Red-eyed Vireo**

Late north 9-21 Polk RJ, 10-21 St. Louis KE; late south 10-5 Washington DS, 10-6 Hennepin ES.

**Philadelphia Vireo**

Early south 8-30 Anoka KL, 9-9 Hennepin DB, VL; late north 9-27 St. Louis LW, 9-30 Clay LCF; late south 9-30 Hennepin SC, 10-5 Washington DS.

**Warbling Vireo**

Late north 9-2 Aitkin WN, 9-5 Beltrami JC; late south 9-21 Washington DMB, 9-25 Houston EMF.

**Black-and-white Warbler**

Early south 8-17 Anoka KL, 8-24 Olmsted JF; late north 9-18 Itasca TL, 9-24 Red Lake KSS; late south 10-6 Hennepin SC, 11-13 Hennepin Iaverone Larson.

**Golden-winged Warbler**

Late north 8-29 Itasca TL, 9-2 Aitkin WN; late south 9-10 Anoka JLH, 9-19 Hennepin SC.

**Blue-winged Warbler**

Three reports: 8-24 Olmsted JF, 8-31 Houston EMF, 9-1 Washington BL.

**Tennessee Warbler**

Early south 8-11 Olmsted JEB, 8-18 Washington DMB; late north 9-27 Cook KMH, 10-2 St. Louis JG; late south 10-9 Washington DMB, 10-15 Houston EMF.

**Orange-crowned Warbler**

Early north 8-25 Itasca TL, 8-30 Clay LCF; early south 8-15 Hennepin SC, 8-21 Stearns NH late north 10-18 Pennington KSS, 10-20 St. Louis JG; late south 10-18 Hennepin VL, 10-25 Sibley RJ.

**Nashville Warbler**

Early south 8-11 Sherburne EH, 8-13 Olmsted JEB; late north 10-11 St. Louis KE, 10-18 Otter Tail GW; late south 10-6 Hennepin SC, 11-11 Nicolle JCF.

**Northern Parula**

Early south 8-30 Blue Earth JCF, Wright ES; late north 9-9 St. Louis LW, 9-16 St. Louis JG; late south 8-31 Anoka KL, 9-2 Hennepin SC.

**Yellow Warbler**

Late north 9-16 Cook KMH, 9-18 Clay LCF; late south 9-7 Anoka KL, Wright ES.

**Magnolia Warbler**

Early south 8-18 Hennepin SC, 8-29 Stearns RH; late north 9-27 St. Louis JG, LW; late south 9-21 Hennepin ES, 9-26 Hennepin SC.

**Cape May Warbler**

Early south 8-28 Hennepin SC; late north 10-26 St. Louis Dick Green, 11-29 St. Louis KE; late south 10-25 Houston EMF.

**Black-throated Blue Warbler**

Early south 8-26 Cottonwood LF, 9-2 Hennepin RBA late north 9-17 Clay LCF, 9-24 Red Lake KSS; late south 9-18 Hennepin RBA, 9-19 Hennepin SC.

**Yellow-rumped Warbler**

Early south 8-10 Murray JD, 8-21 Lyon HK; late north 10-26 St. Louis LW, 11-3 St. Louis KE; late south 10-26 Dakota MW, Houston FL, 11-12 Redwood LJF.

**Black-throated Green Warbler**

Early south 8-24 Houston FL, 8-27 Dakota JD, Hennepin VL; late north 9-16 Cook KMH, 9-24 Red Lake KSS; late south 9-21 Houston EMF, 9-26 Hennepin SC.

**Blackburnian Warbler**

Early south 8-3 Anoka JLH, 8-17 Hennepin VL; late north 9-16 St. Louis JG, 9-20 Aitkin WN; late south 9-18 Houston EMF, 9-22 Sherburne EH.

**Chestnut-sided Warbler**

Late north 9-20 Aitkin WN, Cass RJ, 9-21 St. Louis JG; late south 9-27 Hennepin SC, 10-25 Washington DS.

**Bay-breasted Warbler**

Early south 8-14 Hennepin DB, 8-17 Hennepin SC; late north 9-14 St. Louis OJ, 9-21 St. Louis JG; late south 9-22 Hennepin DB, SC, 9-29 Hennepin ES.

**Blackpoll Warbler**

Early north 8-24 Cook KMH, St. Louis JG; early south 8-5 Anoka JLH, 8-17 Washington DS; late north 9-17 Lake SW, 9-26 Cook KMH; late south 9-24 Hennepin SC, 10-25 Sibley RJ.

**Pine Warbler**

Early south 8-9 Washington DS, 8-17 Hennepin VL; late north 9-21 Beltrami RJ, 9-23 Hubbard HJF; late south 10-26 Houston EMF.

**Palm Warbler**

Early south 8-22 Mower RRK; late north 10-18 St. Louis JG, 10-20 St. Louis KE; late south 10-8 Hennepin SC, 10-19 Dakota JD.

**Ovenbird**

Late north 9-10 Lake SW, St. Louis JG, 9-11 Cook KMH; late south 9-20 Washington DMB, 9-26 Hennepin SC.

**Northern Waterthrush**

Early south 8-13 Washington DS, 8-17 Hennepin VL; late north 9-10 Lake SW, 10-6 Cook KMH; late south 9-21 Wright ES, 9-23 Hennepin ES.

**Connecticut Warbler**

Early south 8-27 Hennepin SC; late north 9-13 Itasca TL; late south 9-5 Washington DS.

**Mourning Warbler**

Late north 9-7 Crow Wing JB, 9-8 St. Louis JG; late south 9-21 Stearns RH, 10-5 Winona JD.

**Common Yellowthroat**

Late north 9-27 Wilkin GW, 10-1 St. Louis JG; late south 10-3 Carver RJ, Hennepin SC, 10-4 Goodhue BL, Hennepin ES.

**Wilson's Warbler**

Early north 8-10 Clay LCF, Cook KMH, 8-13 Pennington KSS; early south 8-12 Olmsted JEB, 8-14 Hennepin DB; late north 9-26 Cook KMH, 10-19 Clay LCF; late south 9-17 Hennepin SC, 9-22 Murray AD.

**Canada Warbler**

Early south 8-21 Anoka JLH, Hennepin SC, 8-26 Hennepin VL, Olmsted JF; late north 9-1 Pennington KSS, 9-20 Aitkin WN; late south 9-8 Houston EMF, 9-30 Washington DMB.

**American Redstart**

Late north 9-23 Cook KMH, St. Louis JG, 9-30 St. Louis CM, KE; late south 10-10 Nicollet JCF, 10-26 McLeod Ray Glassel.

**Bobolink**

Five reports: 8-8 Aitkin WN, Olmsted JEB, 8-10 Clay LCF, 8-18 Pennington KSS, 8-22 Lyon HK.

**Eastern Meadowlark**

Late north 10-19 St. Louis LW, 10-21 St. Louis KE.

**Western Meadowlark**

Late north 10-6 Pennington KSS, 10-26 Clay LCF.

**Yellow-headed Blackbird**

Late north 9-5 Douglas SW, 9-6 Beltrami JC; late south 10-22 Jackson LJF, 11-21 Nicollet JCF.

**Red-winged Blackbird**

Late north 11-10 Otter Tail Nancy Jackson, 11-27 Kanabec OJ.

**Orchard Oriole**

Two reports: 8-8 Clay LCF, 8-29 Stearns RH.

**Northern Oriole**

Late north 8-27 Clay LCF, 8-28 Pennington KSS; late south 9-8 Dakota JD, 9-15 Le Sueur HC.

**Rusty Blackbird**

Early north 9-12 St. Louis LJF, 9-14 St. Louis KE, OJ; early south 10-12 Washington DS, 9-13 Wabasha WDM; late north 9-21 St. Louis KE, JG, 9-25 Otter Tail GW, 9-27 St. Louis LLH,

11-15 Agassiz NWR, Marshall Co.; late south 11-15 Meeker and Wright RJ, 11-21 Nicollet JCF.

**Brewer's Blackbird**

Late north 10-31 St. Louis LW, 11-19 Pennington KSS.

**Common Grackle**

Peak of 100,000 10-26 Anoka KL; late north 11-29 Otter Tail GW, 11-30 Clay LCF.

**Brown-headed Cowbird**

Late north 10-5 St. Louis LW, 10-13 Itasca JC; late south 11-21 Nicollet JCF, 11-22 Redwood LJF.

**Scarlet Tanager**

Late north 9-2 St. Louis KE, 9-14 Lake SW; late south 9-30 Anoka KL, Mower RRK, 10-27 Hennepin RBA.

**SUMMER TANAGER**

Two reports: 8-24 St. Louis D. Green (see *The Loon*, Vol. 52, No. 4, p. 189), 10-8 St. Louis T. Decker (see *The Loon*, Vol. 52, No. 4, pp. 143-144).

**Cardinal**

One report north 11-28 St. Louis M. B. Nevers; reported from 16 counties south.

**Rose-breasted Grosbeak**

Late north 9-7 Clay LCF, St. Louis KE, 9-8 Pennington KSS; late south 9-30 Hennepin SC, 10-3 Hennepin ES.

**Indigo Bunting**

Late north 9-22 St. Louis JG, 9-30 Clay LCF; late south 10-1 Hennepin DB, 10-8 Houston EMF.

**Dickcissel**

Five reports: 8-1 Nicollet JCF, Nobles LCF, 8-2 Olmsted RJ, 8-3 Mower RRK and 8-6 Jackson LJF.

**Evening Grosbeak**

Early south 10-28 Anoka BH, 11-5 JLH, 11-1 Washington DMB.

**Purple Finch**

Reported from 11 counties north and 16 counties south.

**Pine Grosbeak**

Early north 9-28 Crow Wing JB, 10-6 Itasca DB; early south 11-10 Ramsey EC, 11-15 Hennepin OJ.

**Hoary Redpoll**

One report: 11-26 Aitkin KE.

**Common Redpoll**

Early north 10-12 St. Louis KE, 10-21 Cook KMH; early south 11-4 Anoka JLH, 11-5 Dakota JD.

**Pine Siskin**

Reported from ten counties north and 15 counties south.

**American Goldfinch**

Reported from nine counties north and 14 counties south.

**Red Crossbill**

Thirteen reports north; two reports south 11-10 Hennepin OJ, 11-21 Anoka JLH.

**White-winged Crossbill**

Early north 8-2 Cook Ron Huber; early south 10-21 Big Stone DB.

**Rufous-sided Towhee**

Late north 9-6 Beltrami JC, 9-23 Polk RJ; late south 11-8 Hennepin RBA, 11-15 Cottonwood LF.

**Savannah Sparrow**

Late north 10-8 St. Louis KE, 10-12 Clay LCF; late south 10-17 Nicollet JCF, 10-18 Hennepin OJ.

**Grasshopper Sparrow**

One report north 8-3 Pennington KSS; late south 9-8 Stearns RH, 10-4 Sherburne RJ.

**LeConte's Sparrow**

Five reports: 8-3 Pennington KSS, 8-5 Kandiyohi RH, 9-8 Stearns RH, 9-27 Waseca RJ, 10-8 Wabasha RJ.

**Vesper Sparrow**

Late north 10-8 St. Louis KE, 10-19 Clay LCF; late south 11-12 Hennepin SC, 11-22 Hennepin SC.

**Lark Sparrow**

One report: 8-1 Nicollet JCF.

**BLACK-THROATED SPARROW**

10-7 St. Louis KE, JG second state record (see *The Loon*, Vol. 52, No. 4, p. 143).

**Dark-eyed Junco**

Early south 9-12 Olmsted JSD, 9-19 Anoka JLH, Houston EMF.

**Tree Sparrow**

Early north 9-7 St. Louis JG, 10-6 Red Lake KSS; early south 9-16 Murray AD, 10-4 Anoka DS.

**Chipping Sparrow**

Late north 10-12 Otter Tail GW, 10-22 St. Louis LW; late south 10-26 Houston EMF, 10-31 Hennepin DB.

**Clay-colored Sparrow**

Late north 9-27 Pennington KSS, Wilkin GW, 10-7 St. Louis KE; late south 9-27 Freeborn RJ, 10-9 Cottonwood LF.

**Field Sparrow**

Late north 10-2 Morrison EC; late south 10-11 Houston JP, 10-22 Houston EMF.

**Harris' Sparrow**

Early north 9-20 Hubbard RJ, 9-25 St. Louis KE; early south 9-23 Stearns RH, 9-27 Waseca RJ; late north 11-17 Aitkin fide JB, 11-30 Otter Tail GW; late south 11-19 Cottonwood LF, 11-28 Nicollet JCF.

**White-crowned Sparrow**

Early north 9-6 St. Louis KE, 9-8 Pennington KSS; early south 9-16 Anoka KL, 9-17 Olmsted JF; late north 10-28 Clay LCF, 11-6 St. Louis KE; late south 10-31 Nicollet JCF, 11-22 Le Sueur HC.

**White-throated Sparrow**

Early south 8-27 Stearns RH, 8-31 Anoka KL; late north 10-27 St. Louis JG, 11-26 Lake fide SW; late south 11-29 Houston EMF, 11-30 Ramsey JP.

**Fox Sparrow**

Early north 9-20 Itasca DB, St. Louis JG, 9-21 Clay LCF; early south 9-12 Anoka KL, 9-17 Washington DMB; late north 10-29 Hubbard HJF, 10-30 Cook

KE; late south 10-31 Nicollet JCF, 11-5 Anoka JCH.

### **Lincoln's Sparrow**

Early south 9-2 Hennepin SC, 9-3 Sherburne EH; late north 10-12 Clay LCF, Itasca TL, 10-19 St. Louis LW; late south 10-20 Stearns EH, 10-24 Nicollet JCF.

### **Swamp Sparrow**

Late north 10-12 Clay LCF, Otter Tail GW, 10-18 Pennington KSS; late south 10-20 Hennepin SC, Stearns NH, 10-25 Sibley RJ.

### **Song Sparrow**

Late north 10-28 Marshall KSS, 11-13 Otter Tail GW.

### **Lapland Longspur**

Early north 9-11 St. Louis KE, 9-13 St. Louis LW; early south 10-10 Hennepin OJ, 10-17 Nicollet JCF; late north 10-26 St. Louis KE, JG, 11-14 Cook KMH.

### **Chestnut-collared Longspur**

One report: 9-3 Clay SM.

### **Smith's Longspur**

One report: 9-11 St. Louis KE.

### **Snow Bunting**

Early north 9-30 Itasca MS, 10-1 St. Louis TH; early south 10-19 Cottonwood LF, 10-25 Houston JP.

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# "TAME" RUFFED GROUSE!

Gordon W. Gullion

The recent note by J. Rosenau in *The Loon* (Spring 1980, and reprinted in the *BIRD WATCHERS DIGEST*, Sept./Oct. 1980), plus a recent letter from Orwin Rustad concerning a supposedly "tame" Ruffed Grouse in the River Bend Nature Center near Fari-bault prompted me to write this note.

This type of behavior towards humans is fairly unusual among these birds because the contacts most Ruffed Grouse have with humans teaches them to flee rather than challenge. But once in awhile a bird in an isolated or protected covert that has not had a threatening experience with a human will treat us as an equal and defend his territory against our intrusion, as these birds reported by Rose-nau and Rustad were evidently doing.

There are numerous reports of this type in the literature concerning Ruffed Grouse, and there'd be more except that a bird responding in that manner in the fall is more likely to be shot than reported.

While I can't be certain, it seems probable that all of these records deal with male grouse, usually 15 months old or older, and probably within about 100 m of their drumming logs.

There have been three such experiences here on the Cloquet Forestry Center, two of them dealing with birds about whom we have a good deal of information.

The first was a male Robert L. Eng trapped on a drumming log and banded in 1956. This bird no. 401 produced quite a history of aggressive behavior against people over the next 15 months. Bob's field notes contain eight

records of this bird intercepting and attacking him as he walked transects through or otherwise invaded 401's territory.

A forest road crossing 401's territory has long been a favorite hideaway for romantic human couples wishing to be undisturbed, and there were reports of this "crazy" grouse that came out to attack parked cars while radios were playing. One morning Dr. Bill Marshall came upon a couple towards the end of their night-long tryst and the male partner only commented about the "crazy" bird that had climbed all over his car. Once this bird came out in response to a discussion of Woodcock singing activity, and two other times he responded to whistling.

Prior to 1961 this road also marked the boundary between the Cloquet Forest Refuge and land open to hunting. So on September 29, 1957 this bird may have been challenging an armed hunter when he was legally bagged.

On occasion grouse that we have trapped and handled several times and that have learned that they are not being harmed will turn on their captor and let their displeasure be known.

While Frank Svoboda was checking aspen flower bud production in a perennial drumming activity center on 8 April 1966 a young male (no. 2027) challenged Frank's intrusion into his territory. The bird spent some time circling Frank on the snow, followed him from tree to tree as he checked several trees and followed him when he snowshoed 100 m out to the road.

When last seen 2027 was running along the roadside snowbank as Frank drove away.

Our contact with bird 2027 began when he was only five weeks old and was trapped along with his mother and five other brothers and sisters. We handled him six more times during that summer and fall. On 24 October 1965 he was seen in full display with two other grouse, and then was evidently defending the territory he intended to occupy overwinter and the next spring. This low security activity center has a long history of rapid turnover among its occupants. The pine dominated forest composition is more in favor of raptors than of grouse, and this bird did not survive to participate in the 1966 drumming season. However he had defended the territory well enough during the fall and winter that there were no other males nearby to replace him, so this center remained vacant until the fall of 1966.

Although I've spent many, many days with these birds my only real encounter with a so-called "tame" grouse was a bird living near a bar in Wisconsin just across the St. Louis River from Fond du Lac in west Duluth.

This bird first came to my attention through an article in the Duluth News-Tribune on August 31, 1975. That day my wife and I went to see this bird, named "Nutsy." We visited him again on September 14 when this photo was taken.

He was obviously an adult, territorial male, intent on defending his home range against any and all intruders that were not threatening to him, such as a dog might be.

He behaved towards us in very much the same manner as other males I have seen confronting other male grouse. He strutted, scolded, with head bobbing, and engaged in displacement feeding activity, as J. Rosenau de-



scribed when she noted her bird plucking at grass. "Nutsy" always kept the upper hand. We could put our hand down and he would step on it, pecking at our hands and arms. He could be placed on our arms, shoulders and even on my head, but he would not allow us to hold him. We could not grasp his feet or legs, and he would not let us place a hand over him. He insisted on remaining unfettered and free. "Nutsy" backed away when we faced him but would attack our legs if we turned our backs.

I lay down for a while to obtain some better photos of him and "Nutsy" almost danced around me, as if celebrating his complete dominance over me.

When we departed "Nutsy" would follow to a certain point, then lose interest and return to his woods. Several times I returned to lead him out again and each time "Nutsy" turned back at nearly the same point suggesting that he recognized a fairly precise limit to his territory. The zone where "Nutsy" turned back was less than a meter in width.

Defense of drumming activity centers or territories is a major occupation of male Ruffed Grouse in the fall. Nearly a quarter century of records at Cloquet has shown that many of these territorial birds spend more time on their drumming logs in fall than in the spring. While drumming is not heard so often, it still occurs sporadically from early September until late December. Most males associ-

ated with logs begin spending more time on their logs by mid-September, and attendance increases as the young males seeking a drumming log to claim, challenge older males occupying choice sites. The seasonal peak of log attendance is usually about October 20. But it occurs in spurts.

The passage of cold fronts seems to stimulate dispersal movements, and intensity of log use increases sharply for the two or three days following passage of a frontal system. Then as the young males settle down the older birds back off in their log attendance.

In choice activity centers the occupying birds never really cease territorial defense. Signs of defense can be seen in the snow throughout January and February, and the birds are often spending quite a bit of time on their snow covered logs by late March. After breeding activity has ended in May audible drumming declines sharply, but most males return to their logs periodically. This is indicated by the sequence of molted primary and secondary feathers we find beside the drumming stage from June through August. For example, of the 20 primaries molted by one male in 1976 nine were found beside his drumming stage, and we frequently find a quarter to half of the feathers molted by individual birds during a 12-week period in the leaf litter beside their preferred drumming logs.

**Forest Wildlife Project, University of Minnesota, Cloquet, MN 55720.**

# THE PRAIRIE FALCON: MINNESOTA'S NEXT REGULAR?

Steve Millard

From August through December of 1980, I observed six Prairie Falcons in western Minnesota. Since the mid-to late-70's, sightings of this species have increased dramatically in our state. I believe this is due to an increased awareness of the bird's presence, thereby resulting in more intensive searching on the part of serious birders. I'm sure Prairie Falcons are rare but regular visitors here, as are, undoubtedly, California Gulls, Rufous Hummingbirds, and other species that have been sighted with increasing frequency the past few years. Hopefully, these and a number of others will become regulars in the near future.

Following is a brief account of each sighting. In most cases a detailed description of field marks, manner of flight, etc., is not given, since it would be redundant. I will point out here that in each instance the size, shape, color, markings, and flight-style were sufficiently noted to eliminate confusion with other falcons or raptors in general.

Sunday, August 17 was a gray day with a moderate NW wind, temperature in the low 60's. In the early afternoon my wife Diane and I drove west to check the damage in the Breckenridge (Wilkin Co.) area from a recent storm. I'd seen a good number of gulls and shorebirds there a couple of days earlier, and was hoping that all that potential prey would draw in a vagrant falcon. About three miles north of Breckenridge on U.S. Highway 75, we spotted a large Prairie Falcon high

in a cottonwood on the edge of the highway. This bird was very obliging and allowed close observation for several minutes. I parked on the road shoulder directly opposite it at a distance of perhaps 125 feet. It constantly moved its head, surveying the area around it. The vertical dark brown streaking on the underparts was heavy and extensive. At this close distance the use of a spotting scope revealed the dull, medium gray of the feet, indicating an immature bird. This was a very large falcon, an obvious female. After ten minutes it flew NE over a large field, where we lost sight of it.

Shortly after 11:00 A.M. on September 3 I was traveling east out of Felton, Clay Co., on County Road 34. One-third mile from town, a large Prairie Falcon crossed the road ahead of me moving north very fast, helped by a strong south wind. It dipped and swooped much as Franklin's Gulls do when pushed along by a stiff breeze. I watched it for only a minute, then drove north and east quickly, hoping to find it again. Stopping about a mile NE of where I'd first seen the bird, I scanned the area and saw what I think was the same bird, but soon lost it due to extreme distance.

Returning from South Dakota on September 16, I was driving east on Minnesota Highway 27 approximately nine miles east of Wheaton in Traverse Co. A Prairie Falcon crossed the highway from SE to NW about two hundred yards ahead of me. It was moving very fast, just over the tops of a large stand of sunflowers. This

crop predominates much of the Red River Valley and attracts a number of different species of birds, any of which is fair game for a wandering raptor. Mourning Doves scattered as it flew by, and I last saw it chasing a dove-sized bird (species undetermined — probably a Mourning Dove) over the field. This sighting occurred within two miles of where I saw another Prairie Falcon on October 7, 1979.

A particularly rewarding experience with a small (presumably male) Prairie Falcon took place ten miles NE of Breckenridge in the early afternoon of October 19. Initially spotted with the naked eye at least two-thirds of a mile away, it looked like a probable kestrel, even with binoculars. The tree in which it was perched, a small, gnarled willow, was close to a little-used farm road. Rain the previous two days, however, had made the road very muddy. Taking a calculated risk, I decided this was a prime time to test the much-touted worthiness of front-wheel drive. After proceeding a ways toward the bird, I began to have second thoughts about continuing, but wanted badly to identify it. Periodically I stopped the car to scope the bird, and each time I resumed forward motion, the going got worse in the mud. Before I approached close enough to identify the bird, it flew west — directly away from me. Fortunately, it soon returned and landed on the willow tree, the only tree for at least a half mile in any direction. I finally got close enough to see plenty of field marks; it was definitely a Prairie Falcon. Four minutes elapsed and it flew north toward a small, lone granary or machine shed that stood isolated in an otherwise featureless section of land. Flying low, it made a sudden shrike-like swoop upwards and landed in a gable window opening of the building.

By this time I had gone a mile and reached an intersection that was as muddy as the road I'd been on. The alternatives being even worse, I had no choice but to return the way I'd

come, so I turned around (with difficulty) and headed back. About this same time, the Prairie Falcon left its perch on the shed and returned to the tree. Immediately after it landed, a male Marsh Hawk arrived and began diving on the falcon, which seemed quite unperturbed. After several close passes, the harrier left. A female harrier also came by within a few hundred yards, but continued on without detouring to harass the falcon. I watched the bird for a few more minutes, then left. The wheel wells of my car were so packed with mud that I had to remove one wheel completely and clean out the mess before continuing. This observation lasted about thirty minutes and was worth all the trouble!

The early morning of October 29 was cool and cloudy. Once again I found myself driving west on a typical township road in the faceless black desert of Wilkin Co. A Prairie Falcon approached and passed within thirty yards on my left. Several longspurs were flying along close to the falcon; occasionally one would make a half-hearted dive toward the big bird. Moving steadily eastward, it gradually gained altitude and I watched it until it was a mere speck in the sky, perhaps two or more miles away.

What better Christmas present could a birder ask for than a rare bird? My wife and I were returning to Fergus Falls on Christmas morning after spending the previous evening near Harwood, N.D. As we began crossing the bridge over the Red River on I-94 from Fargo into Moorhead, we spotted a falcon-like bird swooping into the trees and quickly disappearing, then suddenly re-appearing from under the bridge. Traffic was very light, so I pulled over and stopped on the Minnesota side. We watched as the bird flew east along the Interstate fence, rousting a flock of House Sparrows from a small shrub in the ditch. We had by this time identified it as a Prairie Falcon. I pulled off the highway on the Moorhead side and we watched the falcon

cross over from our side of the freeway to the north side. I got back on the freeway and stopped opposite the Holiday Inn. The falcon swooped over some buildings near the Inn, then came toward the highway and hovered like a kestrel over an open, grassy area. Once more it crossed the highway in front of us, and we last saw it amidst some commercial buildings on the SE side of Moorhead.

The almost total absence of snow, plus the generally mild winter, may account for this bird's presence so late in the year. This falcon was flying into 25-35 mph south winds with a temperature of three degrees F. and didn't seem bothered a bit. Plenty of House Sparrows and Rock Doves are available as prey in the area where it was seen. Dave Evans reported to me on January 31, 1981, that there were three, possibly four, Prairie Falcons wintering in Fargo, N.D. He first saw these birds about the 20th of January; one was banded and released.

With the above records, as with others of rare species where two or more sightings occur somewhat closely in time or area, the question of duplication sometimes arises. Seeing six Prairie Falcons in roughly four months made me think briefly about the possibility that I may have seen the same bird more than once, but I think it rather unlikely. I don't believe that one person driving randomly in an area of several thousand square miles is likely to find the same bird twice, though it could happen. The increasing frequency of sightings of this species since the mid-70's indicates that this is a rare but regular visitor to Minnesota, and there are probably several around during the post-breeding season.

When looking for Prairie Falcons, time of day doesn't seem to matter. I've seen them from early morning to late afternoon. The best time of year is probably from August through mid-autumn. Of nearly thirty documented records since 1974 (Bob Janssen, pers. comm.), only four were in the spring.

Of the ten I've seen in Minn. since 1977, six were in October; it is currently the month with the most records. Most sightings occur in the western counties, all the way from Rock to Roseau. Otter Tail, Wilkin, Clay, and Traverse have the best showing, but these are birders' favorites. Others could probably be as productive if thoroughly searched. There are also records from central and eastern counties, and given this species' tendency to wander and ability to cover long distances with ease, it could be found throughout much of the state. The high incidence of fall, as opposed to spring sightings, seems to suggest a more westerly movement of Prairie Falcons in spring.

Looking for Prairie Falcons in west central Minnesota, specifically the Red River Valley area, can be a very trying experience. But the birds are there, and to find them you have to be willing to drive through the most boring (bird- and habitat-wise) part of Minnesota. The only consolation is the knowledge that you may get lucky and find one of these fine birds. Nearly all my observations have occurred in the open, monotonous, intensely cultivated farmlands of extreme western Minnesota. The streams have all been channelized, and there aren't even many fence-rows left. There are a number of abandoned farms with groves that harbor wildlife, and the heavy small-grain and row crop production attracts thousands of longspurs, larks, etc. So it's not a total loss, and there's an abundance of prey for migrant raptors unless the weather is unusually harsh.

Once a Prairie Falcon is located, identification should pose no problems unless great distances or very poor light conditions prevail. Peregrines young or old are darker on the dorsal surface and have a very distinct moustache. Prairies are a uniform medium dusky brown on top, and the axillar/wing lining area appears black. The flight of the Prairie Falcon is usually fast and frequently very low. At times

the course is direct; sometimes it is a random zig-zag. Often they seem to wander aimlessly over the landscape, following no pattern at all. If they surprise a bird, as often as not they will give chase. The wingbeat is shallow and choppy, and more than once while watching this bird I've thought it looked like the wingbeat of a godwit or plover. Another telling characteristic is the invariable harassment of any other raptor in the area. Most all large falcons are noted for this behavior. They can make a lumbering Red-tail look clumsy indeed.

The winter of 1980-81 will be remembered as a good one for winter-

ing raptors in Minnesota. Due to the mild weather and almost total lack of snow in many areas, many species were present further north, including Red-tailed Hawks and American Kestrels. I saw a male Marsh Hawk in Aitkin Co. in late January. Snowy Owls were present in good numbers, and Rough-legged Hawks were very conspicuous in certain places. A large female Gyrfalcon spent the winter in Duluth. The Prairie Falcon, seen on December 25, 1980, is a nice addition to this list, and is the second winter record for the state that I know of.

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## BOOK REVIEW

**North American Birds of Prey**; text by William Mansell; paintings by Gary Low; William Morrow and Company, Inc., New York, 1980; 27 color plates; 29 sketches; 176 pp. \$29.95.

**North American Birds of Prey** is the kind of book you would probably not buy for yourself but would give as a gift to a friend. It is a pleasant, coffee-table book, blessed with unusually artistic paintings of raptors, especially owls, and mildly cursed by a lack of substance.

Gary Low, an artist, "who admits to an increased flow of adrenalin when in the presence of a hawk or owl," conceived this book, and his paintings are its life. The text is William Mansell's work. Mansell, editor of **Canadian Nature**, is the author of numerous articles, columns, and two books, **Muskoka Daze** and **Muskoka Knights**. The text, though very readable and occasionally witty, is plagued by minor errors and a tendency to sacrifice scientific

accuracy for the sake of a well-turned phrase.

The book opens with an introduction to the birds of prey and a defense of non-human predators and predation. Mansell's arguments are reasonable and reasonably accurate until he concludes them with a brief polemic that the world would be happier without certain genera of mosquitos, mice, and rats, and is presently happier for the absence of Passenger Pigeons. Undoubtedly some are happier and some would be happier for awhile, but empty niches await filling, and happiness can be a poor argument. There are people that would be happier if the BWCA were mined, if deer could be hunted year round with no limits, if wolves were extirpated or restricted to zoos. There are even people who would be happier if certain raptors were eliminated.

Following the introduction the book is divided into two major sections,

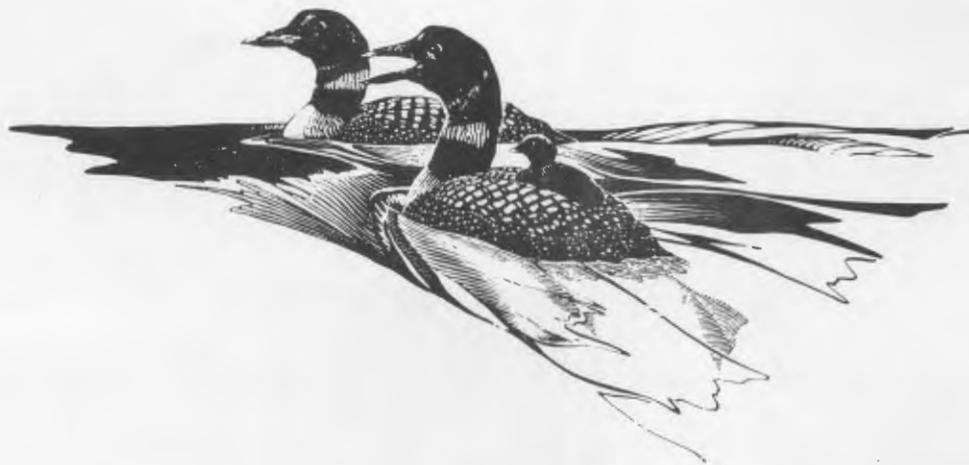
"The Diurnal Raptors" and "The Owls." Each major section opens with a discussion of the group as a whole, including a little phylogenetic information and some physical and behavioral adaptations. The treatment here is reasonably accurate, but there are some minor errors, such as the discussion about owls' eyes. Mansell describes "the owl's flat face, with the eyes directed forward, which gives it monocular vision, like man's . . .," but what he meant was that owls have binocular vision, like man. When both eyes are directed forward so that they see essentially the same image, this is binocular vision. Monocular vision occurs when eyes are on opposite sides of the head, and each eye sees an entirely different image.

Of the 50 or so North American raptors occurring north of Mexico, only 27 are treated in this book (16 diurnal raptors and 11 owls). Each species is illustrated by a sketch, a painting, and some text. The sketches vary in quality, but most are well drawn and capture the peering, alertness of so many

raptors or the sleepy gaze of owls in daylight. The paintings are especially good. Each painting sets the bird in an environment; often it is a cold, cloudy day in fall or winter. Anyone who has ever found themselves on the brink of hypothermia, shivering in an open field, fumbling with foggy binoculars just to see one more Rough-legged Hawk or Snowy Owl, will appreciate Gary Low's paintings and know that he has been there too. Low's owl paintings are especially excellent.

The text accompanying these paintings is less satisfying, for it is an unsuccessful blend of natural history, personal anecdotes, and verbal portraits. There is neither enough natural history to be informative nor adequate prose to be evocative, and the anecdotes cannot stand by themselves.

If this book is worth its price (\$29.95), it is the paintings that make it so. The text, which apparently was needed to make a book out of 27 paintings, is not. **David Bruggers, Bell Museum of Natural History Univ. of Minnesota, Minneapolis, MN 55455.**



# NOTES OF INTEREST



**HOUSE FINCH IN MINNESOTA** — On November 21, 1980, at about 11:00 a.m. I glanced out the window of our house to see a light red finch sitting on the rim of our open bird feeder, about six feet away from the window. A novice at birding (my husband is the family pro), I'd had a steady diet of chickadees and nuthatches for several weeks so the finch was a thrilling sight. I reached for my new Peterson field guide to verify my initial impression that it was a Purple Finch. It didn't fit the Purple Finch description, however, because the lower breast and belly were obviously striped with brown, the wings were brown rather than the brown and red of the Purple Finch, and the finch had a brown cap and brown at the eyeline. The throat and breast were red, fading to cream (with the brown stripes) on the belly. The rump was also red. Happily, the House Finch occupied the same page as the Purple Finch in the field guide. As if to model itself for my amateurish eyes, the House Finch sat feeding quietly with only an occasional hop as the circular feeder turned gently in the morning breeze to give me views from all sides. I had been examining it for five or six minutes when three-year old Seth popped up at the window to have a look and frightened the finch away. I never saw it again. **Denise Bruggers.**

On December 15, at about 10:45 a.m., I saw a finch, with a white belly and brown stripes on its sides and lower breast, sitting on an upper branch of an ash tree that grows in front of our house. The finch flew down to the feeder that hangs about six feet away from our living room window. I was struck by the orange tint of the red of the finch's breast, rump, throat, forehead, and superciliary. The brown crown, auriculars, and lores contrasted with the warm red of the rest of the face and forehead. The red breast faded to white in the upper belly, and the brown stripes were most striking on the sides. The back, nape, and wings were brown with no traces of red. The finch sat feeding for about two minutes before a large White-breasted Nuthatch charged into the feeder and frightened the finch away. The House Finch returned to the feeder almost immediately and fed for almost another minute. Then it dropped to the ground, toyed with a sunflower seed, and flew off. **David Bruggers, 2433 So. Hopkins Crossroad, Minnetonka, Minnesota 55343.**

## **MINNESOTA DOES HAVE A SPECIMEN OF MACGILLIVRAY'S WARBLER**

— When **Minnesota Birds** (Green and Janssen, 1975) was written two puzzling warbler specimens of the genus *Oporonis* in the Bell Museum of Natural History were examined. Both had been taken at Madison, Lac Qui Parle County in the spring and were spring males with the characteristic eye-arcs of MacGillivray's Warbler. Since hybrids between MacGillivray's and Mourn-

ing Warblers might be expected as migrants in western Minnesota and since plumage characteristics alone are not enough to eliminate hybrids, the specimens were measured by museum staff. Using the published key available at the time (Lanyon and Bull, 1967, **Bird Banding** 38:193), it was concluded that these specimens were possible hybrids because their wing minus tail measurements were in the overlap zone mentioned in that paper. Since then another paper on the hybridization of these warblers (Hall, 1979, **Bird Banding** 50:101-200) has appeared and one of the Bell Museum specimens (MMNH 12316. June 5, 1956) was mentioned in it as a probable hybrid (*ibid*, p. 104). The other bird was not tagged as a possible hybrid in that paper and was remeasured by H. B. Tordoff in August 1979. These examinations confirmed its identity as a MacGillivray's Warbler, **Oporonis tolmei**, adult male, Madison, Lac Qui Parle Co., May 11, 1958 (MMNH 14053).  
**Janet C. Green, 10550 Old N. Shore Rd., Duluth, MN 55804.**

**SHORT-BILLED MARSH WREN IN JANUARY** — The temperature was 55° during the afternoon of January 25, 1981. The previous day it reached 58° and there was no snow cover. The whole winter had been dry and unseasonably warm. Rose and I were birding in the Wildlife Management Area on Mower Co. Road 5 which is east of Lyle. The area has a small stream which runs its length and it is predominately a wetland with marsh grass, brush and scrub trees. We were in the back part of the Area and Rose decided not to go further. I continued a short distance while she waited. When I returned, she was watching a clump of marsh grass and brush. To my amazement there was a wren hopping around in the branches. As I worked my way toward her, it went out of sight. Rose said she had been clicking her tongue when she suddenly heard a clicking noise behind her. When she turned around she found a rather excited wren. I tried a sharp clicking with my tongue with no response. I asked her to call it again and she made a more raspy clicking and the wren immediately came up and started hopping about on the same branches. We were within 20 feet of it and had a prolonged look at it. We had 7 x 50 and 9 x 36 binoculars and a new Petersons along to confirm what we were seeing. The first thing we noticed was its small size and short tail. The throat and breast was white. The top of the head had fine streaks and the back was streaked. There was a faint eye line. The undertail area was a dark orange buff and there was a lighter buff streak on the sides. It was very active and appeared to be in good condition. **Ron and Rose Kneeskern, 1208 5th St. N.W., Austin, MN 55912.**

Editor's Note: The above record represents a first for the state of Minnesota, a winter record for the Short-billed Marsh Wren. There is one January record for the Long-billed Marsh Wren in the state. The latest fall date on record for the Short-billed is November 9 and the earliest spring date is April 14. The above is an incredible record.

**RARE PAIR OF BARROW'S GOLDENEYE** — Saturday, February 21, 1981 was the end of a week of warm Spring-like weather. A Mourning Dove was calling in our yard, a Chipmunk had come out of hibernation. George and I decided to stop at Black Dog and check for new arrivals. Driving west on the access road, I checked the many goldeneyes in the river. About 400 feet away I saw a darker marked bird; we drove to the area and there was the rare Barrow's Goldeneye I have been seeking. It was very strikingly

marked, very different from the Common Goldeneyes. It was accompanying a female, at a distance of 100 feet from us. Due to the exciting circumstances, we probably made the birds skittish and they flew off east in a small flock. We walked down the road and they flew off again. This time we got back into the car and circled east along the river. I found the pair easily again with the largest flock of goldeneyes. This time we looked them over carefully and here are the details: The male has a much more exaggerated profile than illustrated in bird books. The head is flat, the forehead protrudes over the bill and the back of the head is heavier and larger than shown; this is a very large headed bird. The black head reflects the purple iridescence, the crescent white hash mark is heavy below and shrinks to a small point at the top, like a curved teardrop. The bird looks very black headed, the back looks black about half way to the water line, the dark black line, or point, extending down over the front of the breast is very striking. The whole back is very dark in comparison to the Common Goldeneye which has a decided white look, with the black back across the top having small black hash marks extending downward at an angle. We decided this bird could not be missed if seen with Common Goldeneyes. George thought it had a resemblance to the Hooded Merganser look. Next I studied the female. The pair were very obvious in their shared behavior. At times they would be separated, but the male always seemed to find the female. When she would dive, he would. When she tucked her beak under her wing, he did. Once she awakened and started moving away, he followed her with his head still tucked under his wing. I looked at the female for any distinctive marks. I did not see any exaggerated head shape, but the resting wing pattern seemed the most distinctive. There were three white marks on the folded wings. The back two marks were much larger than the white of the Common female. The white marks were in the shape of a parallelogram, or diamond shaped, the last two at the end of the wing were larger and very distinct. I thought the illustration in Robbins did not apply. Checking through my bird guides this morning I found the Barrow's illustration in the Hamlyn Guide to British Birds much better. The secondaries illustrated here are with a wider white area than on the Common female. This would then be visible as a larger white mark on the folded wing. As usual I will quote from Collin's Field Guide which I always find aptly phrased: "Male: head has purplish gloss and bulges fore and aft; crown has a snoodlike droop at rear (not high domed as in Common). On water, sides and wings have much more black than does Common; black hook points down on shoulder, separating sides from breast; row of white spots on black scapulars; black line divides white wing patch. Female indistinguishable in field in winter." Peterson's Eastern Guide states: "In the winter it is not safe to tell females except by the males they are with." In Peterson's Field Guide to Birds of Britain and Europe, and in the Hamlyn Guide to Birds of Britain and Europe each states that the Barrow's is larger than the Common. Peterson lists the Barrow's as 21 inches long, Hamlyn agrees with the 21 inches. Peterson lists the Common as 18 inches long, Hamlyn lists it at 19 inches. Peterson's Guide to Britain and Europe states: "Barrow's head is glossed purple instead of green and is of a remarkable shape, with more abrupt forehead, low rounded crown, and a distinct mane on nape. Scapulars boldly barred black and white. Female very like female Common but larger, with shorter deeper bill, more abrupt forehead and slightly ragged nape." Equipment used: Bausch and Lomb scope 20x wide angle eyepiece, Leitz 8 x 40 Binocular, 7 x 35 Tasco Binocular. Distance from birds: 75-100-125 feet, width of Minnesota River. Time: About 10:30

A.M., length of observation—about ½ hour or more. Birds were still there when we left. **Ms. Evelyn T. Stanley, 213 Janalyn Circle, Golden Valley, MN 55416.**

**A WINTER CORMORANT RECORD** — On Sunday, January 18, 1981 at 1:30 P.M. we were driving along Warner Road eastbound about a half-mile from Jackson Street in St. Paul, Ramsey Co. along the Mississippi River. On the ice along with several dozen Mallards and a couple of Common Goldeneyes was a Double-crested Cormorant. It was standing on the edge of the ice only inches from the open water. We pulled our car into the nearby railroad yard and walked back to the east of the bird and over the course of about 20 minutes, made the following observations. Getting as close as 150 feet and using 7 x 50 binoculars and referring to Robbins, et al., *Birds of America*; erect posture, snake-like neck, merganser-like bill, about as high as a Mallard is long. Dark color, black dorsal, lighter gray ventral. Bird was facing north apparently to present its darker side to the sun for radiant warming! Yellow but quite pale throat patch. The bird remained motionless except for occasional rotation of the head to observe us. The temperature was 42°, winds were nearly calm. **Frank and Kathi Berdan, 1006 Linwood Ave., St. Paul, MN 55105.**

Editor's Note: There is only one other January record for the Double-crested Cormorant in Minnesota, that of a single bird at Ortonville, Big Stone Co. on January 1, 1980.

**GOSHAWK KILLS PRAIRIE CHICKEN ON BOOMING GROUND IN NORTHWEST MINNESOTA** — On 26 February 1981, Shelly Neilson, Tod Tonsager, and I were censusing booming grounds southeast of Crookston when we observed evidence that a Prairie Chicken had been killed on a booming ground by a Goshawk. Ordinarily, we do not census booming grounds this early, but due to the unusually mild weather conditions, birds were quite active and booming was audible up to one mile. The temperature was 24° at 0630, wind was SE at five mph and the snow had melted even in sheltered areas. At 0900, we drove to a booming ground (NE¼SE¼, S.30, T149N, R44W) which had been active in 1980. We stopped on the Pembina Trail Road as we reached the north edge of the described forty and observed three Prairie Chickens crouched in the cultivated field. Suspecting that more birds were hiding amongst the furrows, we got out of the car and 20 Prairie Chickens flushed some 200 yards to the south. Soon after, another bird flushed about 70 yards to the west of the booming ground. My first thought was of a Prairie Chicken, and after noting size and a gray body, I thought briefly of a Canada Goose (obviously a great size difference between Canada geese and grouse, but we had just seen a lone Canada Goose flying north and they commonly sit in grain stubble fields, sometimes near booming Prairie Chickens). In the bright morning sun, I saw a distinctly silver gray hawk, larger than a crow, fly west toward the wooded, eastern edge of the Pembina Trail Preserve located about 400 yards away. The bird apparently flew very fast and low to the ground because I never saw it again after it flushed and dropped over the crest of the ridge. After I had scanned the horizon and the aspen stand with binoculars, hoping for another sighting, I came back to the spot where the bird had flushed and saw feathers blowing across the field, so we went for a closer look. A freshly killed Prairie Chicken was found with the left breast, left leg, and neck eaten. I located the approximate center of the booming ground (based

on distribution of droppings, tracks, and feathers) and then paced 38 steps to the west where the raptor had apparently made first contact (as evidenced by feathers) and then 29 steps to the location of the carcass. The adult male Prairie Chicken was apparently in good physical condition as judged by subcutaneous fat, a full breast muscle, and no obvious disabilities of wings or legs. The bird was apparently struck in the tail region since tail feathers were found at the first contact point. I suggest that the Prairie Chicken was attacked around 0815 - 0830 (the carcass was fresh but not "steaming" warm at 0900) by the hawk coming in from the east, with the sun at its back. The birds probably flushed from the ground during the attack and returned later even though the hawk was plucking feathers and feeding in plain view only 70 yards away. Sparling (1976, *Loon* 46:191-192) observed a Goshawk begin feeding on a Prairie Chicken it had just killed on a booming ground and the displaying birds did not immediately flush. While Goshawks are typically forest dwellers, both the Sparling observation and this one took place in very open country with forests no closer than 400 yards. The regional setting is the edge of the continental forest-prairie transition. It is possible that the raptor was a gray phase Gyrfalcon, but the following evidence favors a Goshawk: Pat Redig (University of Minnesota, St. Paul, Personal communication) indicates that Goshawks typically attack birds by flushing them and then hitting them in the underside or tail region. In contrast, Gyrfalcons usually strike their prey in the air, often fastening their talons into the back area as they force it to the ground and then eat the head and neck. Redig noted, "Neck breaking is a constant feature of falcon kills, but it occurs after the falcon has taken the prey to the ground at which time it employs its notched beak and severs the neck just below its attachment to the skull." The head was undamaged, the neck was not broken, and no talon wounds or bruising was observed on the back of the Prairie Chicken, thus reducing the possibility of a Gyrfalcon being involved. **W. Daniel Svedarsky, University of Minnesota, Crookston, MN 56716.**

**POMARINE JAEGER, MINNESOTA POINT** — I was waiting for the rest of the birding party to return, who had walked the beach to the Superior entry. I sat at the top of a dune at the south end of the Recreation Center, scanning the lake constantly with binoculars. It was about noon on October 15, 1980 and there was very little gull activity out over the lake, but because I was bored, I looked at everything that flew by. My attention was distracted for a bit by some tourists on the beach and while watching them I spotted a dark gull flying moderately low over the water heading toward the southeast. When I put my binoculars on it, the bird was about 150 yards directly in front of me. Through the binoculars I was amazed to see, from the direct side view I had, that it was not a gull but a jaeger with a dark cap and a dark, wide breast band and light lower breast. Just after it passed me it turned and flew out away from shore. The flight was gull-like and direct and it showed striking white patches at the base of the primaries. A Pomarine Jaeger I concluded. As it flew out toward the open lake, it was joined momentarily by two other jaegers, both all dark with an extensive white wing flash like the first jaeger. The adult Pomarine swerved and I could see the underparts again. Not much white showed on the body in contrast to the strikingly white underparts of the Long-tailed Jaeger we had seen earlier in the day. The Pomarine was definitely an adult jaeger with elongated tail feathers but I could not see the shape or determine the length. The restricted light underparts of the Pomarine was probably the

result of the wide, dark breast band and vent area. It was my impression that the two dark jaegers when they were momentarily with the adult jaeger were the same size, but the very brief look plus my excitement in trying to decide which bird to focus on makes me doubtful in retrospect. I followed the two all dark jaegers as they veered off toward the south. They were joined by a gull (a second year Herring Gull, I think) and the three birds swirled together in a chase. The jaegers seemed almost to approach the gull in wing length but again, because of the distance and excitement, I am not absolutely sure. Both birds were definitely all dark with a large white wing patch more striking from below than above. Unfortunately, I could not see any central tail feathers but they might have had short ones that I could not pick out at that distance. The birds were getting further away all the time and when I took my binoculars off them to look for the other birds, I lost them. While scanning the beach to the southeast, hoping someone would come in sight, I spotted a Red Phalarope (**The Loon 53:56**) and did not look for the jaegers again. **Janet C. Green, 10550 Old North Shore Rd., Duluth, MN 55804.**

**YELLOW-RUMPED WARBLERS WINTER IN WABASHA COUNTY —** A Yellow-rumped Warbler has spent the winter in our area feeding at our suet feeders. The bird was first seen on Dec. 12, 1980 when it was thought to be an unusually late fall migrant (according to Green and Janssen the previous late record was Nov. 28). We left on a vacation the following day and returned on Jan. 12, 1981. Our suet feeders were completely empty at this time. They were immediately replenished, and to our surprise our Yellow-rumped Warbler appeared at the feeder on Jan. 16, 1981. We continued to see it daily thereafter. On several occasions we noted our warbler seemed darker than usual and the yellow flank patches seemed more promi-



ment. We suspected a second bird. This was confirmed when on Jan. 26 we saw two warblers at the same time. The birds liked the crumbs of suet left by the woodpeckers at the base of the tree on which the feeder was located so I grated suet and placed it on a platform on the side of the tree. They fed here regularly until the bitter cold night of Feb. 10 (20 below with wind chill of 40 to 50 below zero). The following day we saw no birds and sadly concluded they were unable to survive the night. However on Feb. 12 the lighter colored bird reappeared and has been present ever since. According to Green and Janssen in **Minnesota Birds** there has been one successful attempt at overwintering into March. Since the bird has been present from late fall to early spring, it must be considered to have successfully overwintered. **Wynn and Don Mahle, Rt. 1, Wabasha, MN 55981.**

**FERRUGINOUS HAWK, TRAVERSE COUNTY** — On Wednesday, Oct. 1, 1980, I arose early and left Fergus Falls for Big Stone County. A clear sky and strong NW winds were forecast, with temperatures in the mid 50's to 60 degrees. Thankfully, the predictions were correct. I arrived in Big Stone County at 7:30 a.m. anticipating a good day for migrating raptors. By 9:30 the wind was blowing hard (20-30 mph) and the hawks began to move. I'd stationed myself at a roadside rest overlooking Big Stone Lake from Minnesota Highway 7. Many Red-tails, one Broad-wing, a Swainson's, and a few accipiters came by in the next hour. By late morning the action slowed and I decided to move north. I proceeded through Beardsley and Browns Valley, taking Highway 27 toward Wheaton along Lake Traverse. I'd gone about three miles north of Browns Valley when I noticed a *buteo* hunting along the prairie bluffs east of the highway. Pulling off on an approach, I noted it was a Red-tailed Hawk. Before getting back in the car, I quickly scanned the area and noted a large, long-winged raptor gliding in my direction at eye level. Initially, all I saw was a head-on profile; when the bird came closer I could see uniform white underparts and long wings. My first impression was that of a huge falcon. All this happened in a few seconds, and while I was puzzling it over, the bird banked and headed back toward the ridge-top, giving me a good look at the dorsal surface. Shape and proportions were now obvious; it was a *buteo*. Large white patches on the outer third of each wing, in combination with the uniform light underparts and general silhouette, made me believe it was an immature Ferruginous Hawk. I didn't get a good look at the tail at this time. The remainder of the dorsal area was a medium to dark brown. The hawk drifted back to the top of the grassy bluffs and began moving generally in a southerly direction. I turned around and followed, occasionally catching glimpses of the bird through the trees. Hoping to find a side road that would take me away from the highway and up the hills to intercept the hawk, I soon lost sight of it and realized I'd have to go all the way back to Browns Valley. Wasting no time getting into and through town, I drove north on Traverse County 4, which rises abruptly out of the valley about a mile north of Browns Valley. Despite an intervention of several minutes and miles, I'd speculated that, with luck, I could intercept the hawk along this road. Lady Luck was certainly with me on this trip, because when I topped the ridge and looked northwest, there was the bird in question. It was hunting and remained in the area for several minutes. It hovered frequently with a shallow, quivering wingbeat. Light conditions were excellent, and again all previously mentioned field marks were noted, in addition to a fairly long white tail, the terminal third appearing rufous from above. I concluded that this was an immature Ferruginous Hawk, probably

blown over the same day from the Dakotas. The time of observation was from 11:30 - 11:45 a.m., distance 100 yards and further. Optical equipment used: Leitz 10x40 binoculars and Bushnell 20-45 power scope. I've made several trips to central North Dakota to observe this species on the breeding grounds. Having seen many of these hawks in Kidder County and adjacent counties in North Dakota has considerably buoyed my confidence in identifying them. This area has the highest nesting density of Ferruginous Hawks in North America, according to Bob Stewart. Chances are that most fall records of this species in Minnesota are strays from central North Dakota and perhaps South Dakota as well. A very helpful characteristic not mentioned in any field guide or raptor book that I know of is this bird's unique wingbeat. It has a noticeably shallow wing-stroke, not as deep and ponderous as many North American buteos. This is not an infallible mark, but as a general rule is a good field identification aid. The wings and tail are longer than normal for a soaring hawk. This, in combination with the large size (equal to or slightly larger than a Rough-leg), gives the impression of a slender, scaled-down eagle. Another point not given sufficient emphasis in many field guides is the large white patches on the outer portion of the upper wing. These are prominent and may be visible at long distances. The Robbins, et. al. field guide states that this species does not hover, which is wrong. Brown and Amadon, in **Eagles, Hawks, and Falcons of the World**, vol. 2, state that "frequent hovering is a useful character in flight." Bob Stewart tells me they hover occasionally, probably less than Red-tails do. For my part, I concur with Mr. Stewart, as I have seen Ferruginous Hawks hovering only infrequently. **Steve Millard, 617 E. Cavour, Fergus Falls, MN 56537.**

**AN INTERESTING BALD EAGLE OBSERVATION** — On January 27, 1981, I and three other individuals observed an interesting sequence of events during the capture of a female Common Goldeneye by an adult Bald Eagle near Cohasset, Itasca County. The eagle had spotted the duck, which was injured or sick and could not fly, on an open stretch of the Mississippi River and tried to capture it by swooping down and grabbing it. The duck, in turn, would dive underwater each time the eagle did this, and by so doing successfully evaded several attempts. Finally the eagle landed, feet first, in the open water, in an area where it was four or five feet deep. After a couple of seconds it flew, circled several times, and landed again. It remained on the surface for a short time, then "sank" out of sight, becoming totally submerged. It remained under water for a few seconds before coming to the surface and flying. After hovering briefly, it landed in the water a third time, and flew almost immediately — with the duck in its grasp. Although it is apparently not unusual for Bald Eagles to land or wade in shallow water, I have never heard of one totally submerging itself. It occurred to me later that perhaps the eagle could see the duck hiding in the weeds under the surface, prompting this behavior. I observed the incident with 7x binoculars at about 150 meters. It occurred between 0915 and 0930 — it was sunny and 5 to 10 degrees F above zero. **Robert T. Bohm, 1376 - 20 Highland Village Dr., Duluth, MN 55811.**

**CALIFORNIA GULL RECORD FROM MILLE LACS LAKE** — On August 9, 1979, I observed a gull in St. Albans Bay, Mille Lacs Lake, Crow Wing County, which I identified as a California Gull. The gull, which was in first year plumage, was studied for over one hour at a distance of approximately 200 feet. Both Ring-billed and Herring Gulls were present and within one

to two feet for direct comparison. The general plumage coloration was almost identical to that of a first year Herring Gull except for the bill color and size. Notes taken on the bird at the time of observation are as follows: Tail, all dark; Bill, shorter than Herring Gull, pink with black tip; Legs, color same as immature Ring-billed Gull; Size: little larger than Ring-billed Gull and smaller than Herring Gull. **Terry Savaloja, Box 244, Deerwood, MN 56444.**

**GRAY-CROWNED ROSY FINCH IN MINNETONKA** — On December 26, 1980 I received a call from Karen Lewis of 12921 Lone Oak Drive in Minnetonka, Hennepin County. She informed me that a Gray-crowned Rosy Finch was visiting her feeder and the feeder of a neighbor. The bird was first seen at the neighbor's feeder on December 19. The bird was coming sporadically to both feeders especially during the morning hours. I immediately drove out to the Lewis residence and about 11:30 A.M. after a few minutes wait, I saw the bird. The bird was a male in winter plumage. On succeeding days the finch became more regular at the Lewis feeder and fed almost constantly from shortly after dawn to early afternoon. I saw the bird again on January 1, 1981 when the accompanying photo was taken. The finch was seen easily by many local and out of town birders because it was so regular at the feeder. By mid-January the sightings became more sporadic and the bird was last seen on January 23. This is the second record for this species in Hennepin County, the first being a specimen collected on January 3, 1889! **Robert B. Janssen, 10521 S. Cedar Lake Rd., Minnetonka MN 55343.**



**Gray-crowned Rosy Finch — Photo by Chris Welch**

**A HYBRID RED-SHAFTED X YELLOW-SHAFTED FLICKER** — Kim Eckert, Paul Egeland and I were birding near the Pipestone National Monument, Pipestone County on Saturday, February 28, 1981. At daylight we had

noticed numerous migrating blackbirds passing overhead in a northerly direction. We located a farm on the north end of the Monument where the blackbirds were feeding. There were large numbers of Rusty and Red-winged Blackbirds feeding on spilled corn in the yard and others were feeding in nearby fields. In a pasture bordered by a woodlot, I noticed a flicker on the ground feeding among some of the blackbirds. When the flicker flew up to the woodlot I noticed that the bird had bright pinkish-salmon wing linings and under tail feathers. In a few minutes the bird returned to the ground and we all had a chance to get a look at it. The bird was a female based on the lack of "whisker" marks. The head appeared to be typical of the Yellow-shafted race, grayish crown and nape with a brownish-tan color on the "face" and under chin area. The rest of the plumage was typical of both races of the flickers, broad black breast band, rest of breast and belly spotted with black. The back was brownish crossed with black streaks. The tail was black, but what stood out was the brightness of the pink under wing linings and the underneath part of the tail.

**Robert B. Janssen, 10521 S. Cedar Lake Road, Minnetonka, MN 55343.**

## THE M.O.U. 300 CLUB

The Cinnamon Teal in Douglas County this spring provided a number of 300 Club members with a "lifer." The following are the new totals as of June 1, 1981. Please report new totals to the editor on June 1 and January 1 of each year.

Ray Glassel .....	347	346	Evelyn Stanley .....	316
Bob Janssen .....	346	345	Gary Otnes .....	313
Kim Eckert .....	344	344	Oscar Johnson .....	312
Bill Pieper .....		339	Ruth Andberg .....	311
Paul Egeland .....	339	337	Wally Jiracek .....	311
Ron Huber .....		336	Bro. Theodore (deceased) ..	310
Terry Savaloja .....	336	336	Gloria Wachtler .....	307
Jan Green .....	335	333	Dick Wachtler .....	309
Dick Ruhme .....		333	Doug Campbell .....	305
Liz Campbell .....	331	330	Henry Kyllingstad .....	304
Bill Litkey .....	330	329	Nestor Hiemenz .....	304
Don Bolduc .....		326	Steve Millard .....	306
Karol Gresser .....		325	Violet Lender .....	303
Jo Blanich .....	227	325	Betty Campbell .....	302
Jerry Gresser .....		318		

# THE 200 COUNTY CLUB

Only one new county was added to the 200 County Club over the past five months, that was Sibley Co., which finally made the list. Nestor Hiemenz submitted a most interesting Stearns County list of 264 species. Jan Green's St. Louis County list of 285 is now tops in the state. The following are totals reported as of June 1, 1981. Please report new totals to the editor on June 1 and January 1 of each year.

County	Observer	No. of Species	County	Observer	No. of Species
Aitkin	Terry Savaloja	255	Morrison	Pete Ryan	207
	Jo Blanich	239	Mower	Ron Kneeskern	216
	Bill Pieper	212		Rose Kneeskern	206
	Bob Janssen	201		Bob Jessen	202
Anoka	Ken LaFond	257	Nicollet	John Frentz	217
	Bill Pieper	221		Merrill Frydendall	206
	Ruth Andberg	220		Ray Glassel	201
	Ray Glassel	203	Olmsted	Joan Fowler	228
Becker	Gary Otnes	214		Vince Herring	217
	Marion Otnes	213		Ted Lundquist	213
Blue Earth	Merrill Frydendall	211		Phyllis Lundquist	213
Carver	Kathy Heidel	218		Anne Plunkett	210
Clay	Carol Falk	217		Jerry Bonkoski	207
	Lawrence Falk	215		Joel Dunning	205
Crow Wing	Terry Savaloja	233	Otter Tail	Gary Otnes	284
	Jo Blanich	225		Marion Otnes	273
Dakota	Ray Glassel	240	Pennington	Shelley Steva	206
	Joanne Dempsey	212	Ramsey	Liz Campbell	235
	Bob Janssen	211		Bill Pieper	224
Freeborn	Charles Flugum	212		Bill Litkey	220
Goodhue	Ray Glassel	230		Ray Glassel	213
	Bob Janssen	224		John Fitzpatrick	209
	Bill Pieper	221	Rice	Orwin Rustad	222
	Bill Litkey	203		Ray Glassel	203
Grant	Kim Eckert	214	Rock	Kim Eckert	238
Hennepin	Bob Janssen	274	St. Louis	Jan Green	285
	Alvina Joul	267		Kim Eckert	277
	Ray Glassel	265		Bob Janssen	261
	Oscar Johnson	261		Paul Egeland	259
	Violet Lender	254		Ray Glassel	247
	Bill Pieper	251		Bill Pieper	243
	Don Bolduc	234		Bill Litkey	210
Houston	Fred Leshner	215	Scott	Ray Glassel	211
Jackson	Ingeborg Hodnefield	202	Sibley	Bob Janssen	201
Lac Qui Parle	Micki Buer	231		Ray Glassel	200
	Chuck Buer	223	Stearns	Nestor Hiemenz	264
	Marion Otnes	213		Kim Eckert	235
	Gary Otnes	212	Wabasha	Ray Glassel	204
	Bob Janssen	207	Wadena	Dick Oehlenschlager	243
	Ray Glassel	203	Washington	Bill Litkey	212
Lyon	Paul Egeland	251		Ray Glassel	211
	Henry Kyllingstad	251		Liz Campbell	210
Marshall	Sarah Vasse	235	Yellow Medicine	Gary Otnes	220
	Shelley Steva	200		Marion Otnes	220

14 - 250 Club

## 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.



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## SUGGESTIONS TO AUTHORS

The editors of **The Loon** invite you to submit 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 Kim Eckert. See inside front cover.

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# The LOON

FALL 1981

VOLUME 53 — NUMBER 3



# The LOON

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

**MEMBERSHIPS AND SUBSCRIPTIONS:** Evelyn Stanley, 213 Janalyn Circle, Minneapolis, Minnesota 55416. To join the MOU and receive both MOU publications, send \$7.50 for a regular yearly subscription. Or other classes of membership that you may choose are: Family \$10.00 yearly; Supporting \$15.00 yearly; Sustaining \$25 yearly; Life \$150. Canadian and Foreign Subscriptions, \$10 yearly. **All subscriptions are on a calendar year basis.** Also available: 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 the treasurer.

**EDITOR OF THE LOON:** Robert B. Janssen, 10521 S. Cedar Lake Rd., Minnetonka, MN 55343 (phone 612-546-4220). The editor invites 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 invite reports from parts of the state that have been neglected or covered lightly in past reports. To become a contributor to "The Season," request the report forms from the **EDITOR OF "THE SEASON,"** Kim Eckert, 9735 North Shore Drive, Duluth, Minnesota 55804. (phone 218-525-6930).

**EDITOR OF THE MOU NEWSLETTER:** Mrs. Marlyn Mauritz, 6930 Tecumseh Lane, Chanhassen, MN 55317. Publishes announcements and reports about activities of the MOU and its affiliated clubs. (Club officers should keep both MOU editors informed.)

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# FIRST RECORD OF WILSON'S PLOVER FOR MINNESOTA

Kim Eckert

On the morning of July 4, 1981, Steve and Diane Millard and I spotted a Wilson's Plover at Park Point in Duluth. We had gone down to the Point to see if any of the Red-throated Loons seen the day before or the Brant seen three days earlier were still present. As we walked out along the strip of sand on the bay side near the airport terminal, an unfamiliar plover flushed from the grass along the beach and landed on the sand about 50 feet away. Since the bird was obviously not a Killdeer or Piping Plover, which nest in the area, and didn't look quite right to be a migrant Semipalmated Plover, we followed the bird for the next hour taking notes on its plumage without consulting any field guide. The bird walked around on the sand and grassy field along the airport runway, and at one point squatted down and sat on the runway next to a Killdeer. We could carefully approach the bird within about 50 feet, but once we approached too close and it flew to the beach on the lake side of the Point. After a few minutes we relocated the bird, again carefully stalked it taking notes on its plumage, but again it flushed back in the direction of the runway. Since we had seen the bird at all angles with the sun at our backs much of the time, and since we were still not sure what it was (although the bill size was suggesting the possibility of Wilson's Plover), we decided to return home to compare our notes with more reference books.

Following is a description of the bird from field notes written before any field guide was consulted: size and shape — a plover-type of shorebird

about the length of a nearby Spotted Sandpiper, but chunkier, also decidedly smaller than a nearby Killdeer, but appeared too large to be a Piping or Semipalmated Plover (although none were available for comparison); plumage — back, wings, top of head, cheek and breast band all a medium to light brown (lighter than the dark "mud brown" of a Killdeer or Semipalmated, but darker than the pale grayish brown of the Piping Plover), with the crown, cheek and center of the breast band appearing paler brown than the back, wings and sides of the breast band; eyeline, forehead, neck band (including the throat and around the nape) and underparts (except for breast band) all white; flight pattern — wing-stripe broad and obvious but diffuse and not sharply defined, rump and center of tail same medium brown of back with sides of tail (the area of white was wider near the rump and narrower near the tip of the tail); breast band — wider at the sides or shoulders and narrower at the center of the breast (only about a third of the width at the center than at the sides); bill — all black, relatively thick and long, more like that of a Killdeer and unlike the stubby bills of the Piping and Semipalmated Plovers; legs — pale pink or flesh-colored, similar to leg color of Herring Gull but not as bright; call note — a dry "kip."

As we checked reference books, everything pointed to Wilson's Plover — especially the size of the bill, the leg color, the overall size of the bird, and the shades of the brown plumage — except for the breast band narrowing at the center and the "kip" call



**Wilson's Plover - Minnesota Point, Duluth - 4 July 1981 — Photo by Marj Carr**

note. None of the references mentioned these two features until one of the last books we checked — Bent's **Life Histories of North American Shorebirds** — stated under Wilson's Plover that "the juvenal plumage . . . is much like that of the adult female in winter, but the colors are duller and the breast band is incomplete or only suggested." And Bent goes on to state under Voice, "the commonest note of this species on the ground and on the wing is a ternlike 'quip,' sometimes double 'qui-pip.'" At that point we were convinced we had indeed seen a Wilson's Plover, presumably an immature or juvenile, and after several phone calls I returned to the Point in the afternoon with Janet Green and Kiki Sonnen and met Marj and Bill Carr who had just relocated the plover. We all agreed on the identification, based mainly on the size of the

bill, and Marj managed to get some recognizable photos. Early that evening Terry Savaloja and Paul Egeland arrived in Duluth and also found the plover at the same spot, but intensive searching the next day failed to turn up any trace of the bird.

Perhaps the main reason it took so long to make a positive identification of Minnesota's first Wilson's Plover was because I never considered this coastal species of the South Atlantic and Gulf states a possibility this far inland. However, back issues of **American Birds** list at least three records from the Great Lakes: May 1966 at Hamilton, Ontario and in May 1968 and May 1971 at Presqu'ile, Pennsylvania; there is also an unpublished but reliable record from the Chicago area in the 1950s.

**9735 North Shore Dr., Duluth, MN  
55804.**

## THE 1980 MINNESOTA CHRISTMAS BIRD COUNTS

Kim R. Eckert

A key element which has been missing for a long time from Minnesota Christmas Bird Counts — competition — appears to have been resurrected. In 1979 it was Duluth and Rochester who finished in a tie for first place with 51 species. This past CBC season the competition was even more spirited with traditional power St. Paul Northeast and former also-ran St. Paul finishing in a dead heat with 59 species — a new Minnesota CBC record. The

St. Paul effort was especially impressive considering this CBC hovered near extinction from 1976 to 1978, until a new compiler reorganized things, recruited 73 observers this season (also a new Minnesota CBC record), and reported an impressive and well-documented array of rarities.

Indeed, several other CBCs reported their best counts ever amid generally favorable conditions. The winter finches were in, several species lin-

gered later than normal through the CBC season, and the weather was generally cooperative. For the second year in a row snow was almost non-existent, with only Grand Marais (12-18" snow cover) and Hibbing (8-10") reporting substantial amounts. Temperatures in southern and western Minnesota were on the mild side in December, although it was decidedly colder farther north especially during the opening and closing weekends of the count period — Bemidji ranged from -23° to -5° on Dec. 20 while the new Aurora-Hoyt Lakes CBC had a rude initiation with -40° at dawn on Jan. 4.

There was a total of 41 CBCs taken in the state in 1980. Thirty-eight of these are listed below, with Afton (51 species), Fargo-Moorhead (? species) and Winona (42 species) not sorting their Minnesota birds from their two-state totals. Missing were the modest but interesting efforts from Northwoods and Voyageurs N.P., but offsetting these losses were new counts from frigid Aurora-Hoyt Lakes and from St. Cloud-Collegeville which brought back fond memories of the old Collegeville CBC.

In all, 108 species were recorded this season, about an average total which compares with 111 in 1979 and 106 in 1978. Two of these were undoubtedly firsts on the all-time Minnesota CBC composite list: a well-documented and overdue Thayer's Gull at St. Paul, and that Gray-crowned Rosy Finch at a feeder within the Excelsior circle. Almost as unusual were the Double-crested Cormorant at Hastings-Etter (the only previous CBC record was from Big Stone N.W.R. in 1979) and the well-documented Chipping Sparrows at Cottonwood and St. Paul Northeast (neither of which were at feeders!). Equally impressive were the two Yellow-headed Blackbirds up at Fergus Falls, and the 20 sorted out of the thousands of Red-winged Blackbirds at La Crescent. For the second year in a row there were a few Merlins sighted; just a few years ago this species was considered an exception-

ally rare winter visitor. Brown Thrashers also appear to be on the increase in winter — not one but two Duluth feeders reported them, and the one at Cottonwood wasn't even relying on a feeder. It was also a good season for marginally southern species which were down so much in numbers after those severe winters of a few years ago: Red-headed Woodpeckers and Golden-crowned Kinglets especially provided evidence of this. Finally, every feeder-watcher's favorite group, the winter finches, finally made a decent showing after two consecutive winters of scarcity — Pine Grosbeaks and Common Redpolls were the most evident with good numbers of each reaching several southern Minnesota CBCs.

#### **Albert Lea**

36 species, 2,052 individuals, Charles Howard compiler, Jan. 3; noteworthy — Red-shouldered Hawk, Red-headed Woodpecker, Common Redpoll.

#### **Aurora-Hoyt Lakes**

20 species, 768 individuals, Chuck Neil compiler, Jan. 4; noteworthy — Black-backed Three-toed Woodpecker.

#### **Austin**

44 species, 4,253 individuals, Terry Dorsey compiler, Dec. 21; noteworthy — Merlin, Common Snipe, Red-headed Woodpecker, Brown Thrasher, Golden-crowned Kinglet, 94 Common Redpolls, White-throated Sparrow, 8 Song Sparrows.

#### **Bemidji**

24 species, 1,650 individuals, B. J. Mettler compiler, Dec. 20; noteworthy — Accipiter, sp., Bald Eagle, Black-billed Magpie, Bohemian Waxwing, Common Grackle, American Goldfinch.

#### **Big Stone N.W.R.**

31 species, 16,941 individuals, Robert Berger compiler, Dec. 27; noteworthy — Great Blue Heron, 15,750 Canada Geese, Pintail, Wood Duck, scaup, sp., Bald Eagle, Snowy Owl, Belted Kingfisher, Pileated Woodpecker.

### **Bloomington**

46 species, 11,753 individuals, Richard Hale compiler, Dec. 27; noteworthy — Snow Goose, Sharp-shinned Hawk, Common Snipe, 3 Glaucous Gulls, 797 Tree Sparrows, Field Sparrow, count week Harris' Sparrow.

### **Cedar Creek Bog, Anoka Co.**

37 species, 3,389 individuals, Boyd Lien compiler, Dec. 21; noteworthy — 46 Pine Grosbeaks, Red Crossbill.

### **Cedar Lake, Scott Co.**

28 species, 1,436 individuals, Robert Leis compiler, Dec. 20; noteworthy — Common Redpoll, White-throated Sparrow, count week Harris' Sparrow.

### **Cottonwood**

33 species, 2,250 individuals, Paul Egeland compiler, Dec. 21; noteworthy — 4 Pileated Woodpeckers, Brown Thrasher, Chipping Sparrow.

### **Crookston**

30 species, 2,218 individuals, Thomas Feiro compiler, Dec. 21; noteworthy — Merlin, 30 Greater Prairie Chickens, Sharp-tailed Grouse, Mourning Dove, Black-billed Magpie, American Goldfinch, Dark-eyed Junco.

### **Crosby**

34 species, 3,150 individuals, Jo Blanch compiler, Dec. 20; noteworthy — Pied-billed Grebe, Marsh Hawk, Red-headed Woodpecker, Common Grackle, 1,409 Common Redpolls, Red Crossbill, count week Varied Thrush.

### **Duluth**

51 species, 10,834 individuals, Kim Eckert compiler, Dec. 20; noteworthy — scaup, sp., Oldsquaw, Bufflehead, 23 Rough-legged Hawks, Bald Eagle, 8 Glaucous Gulls, 7,094 Rock Doves, 26 Mourning Doves, three-toed woodpecker, sp., 821 Black-capped Chickadees, 2 Brown Thrashers, Varied Thrush, Cardinal, Red Crossbill, Tree Sparrow, White-throated Sparrow.

### **Excelsior**

43 species, 7,844 individuals, Jack Mauritz compiler, Jan. 3; noteworthy — Gadwall, Sharp-shinned Hawk,

American Coot, Red-headed Woodpecker, **Gray-crowned Rosy Finch.**

### **Faribault**

27 species, 1,700 individuals, Orwin Rustad compiler, Dec. 20; noteworthy — Red-headed Woodpecker.

### **Fergus Falls**

42 species, 4,750 individuals, Paul Anderson compiler, Dec. 20; noteworthy — Great Blue Heron, Snow Goose, Pintail, American Coot, Red-bellied Woodpecker, **2 Yellow-headed Blackbirds.**

### **Grand Forks - East Grand Forks**

Minn. portion

13 species, 1,599 individuals, Frank Kelley compiler, Dec. 20; noteworthy — Short-eared Owl, American Robin, Dark-eyed Junco.

### **Grand Marais**

27 species, 1,123 individuals, Dale Peterson compiler, Dec. 27; noteworthy — Common Grackle, Dark-eyed Junco, Song Sparrow, count week Bald Eagle.

### **Hastings - Etter**

40 species, 2,881 individuals, Joanne Dempsey compiler, Jan. 4; noteworthy — **Double-crested Cormorant**, Goshawk, Short-eared Owl, Red-headed Woodpecker, Golden-crowned Kinglet, Common Redpoll.

### **Hibbing**

26 species, 1,980 individuals, Janet Decker compiler, Dec. 30; noteworthy — Brown Creeper, American Robin, 556 Pine Grosbeaks, Red Crossbill, 59 Dark-eyed Juncos.

### **Itasca State Park**

27 species, 1,112 individuals, Dave Bosanko compiler, Dec. 31; noteworthy — 9 Black-billed Magpies, Golden-crowned Kinglet.

### **Lac Qui Parle**

35 species, 28,011 individuals, Micki Buer compiler, Dec. 20; noteworthy — 22,000 Canada Geese, 4,500 Mallards, 5 Bald Eagles, Marsh Hawk, 6 Snowy Owls, Brown Thrasher, Golden-crown-

ed Kinglet, 550 Red-winged Blackbirds, Cardinal

### **LaCrosse - La Crescent**

Minn. portion

35 species, 27,732 individuals, Fred Leshar compiler, Dec. 21; noteworthy — 5 Turkeys, 4 Common Snipe, 28 Red-headed Woodpeckers, **25,230 Red-winged Blackbirds**, 702 Common Grackles, **20 Yellow-headed Blackbirds**, Brown-headed Cowbird.

### **Lamberton**

33 species, 1,711 individuals, Lee French compiler, Dec. 27; noteworthy — Great Blue Heron, 11 Great Horned Owls, 27 Brown Creepers, Winter Wren, Rusty Blackbird, Common Redpoll, Harris' Sparrow.

### **Mankato**

32 species, 3,753 individuals, Merrill Frydendall compiler, Dec. 27; noteworthy — Sharp-shinned Hawk, Golden-crowned Kinglet, Red Crossbill, count week Pied-billed Grebe and Bald Eagle.

### **Marshall**

32 species, 2,149 individuals, Henry Kyllingstad compiler, Dec. 20; noteworthy — Short-eared Owl, Golden-crowned Kinglet, 157 Common Redpolls.

### **Minneapolis**

44 species, 9,110 individuals, Oscar Johnson compiler, Dec. 20; noteworthy — Canvasback, Red-shouldered Hawk, Bald Eagle, Red-headed Woodpecker, 15 Pine Grosbeaks, 502 Common Redpolls.

### **Mt. Lake - Windom**

34 species, 3,189 individuals, Ellis Gerber compiler, Jan. 1; noteworthy — Common Redpoll, 2 Harris' Sparrows, Song Sparrow, count week Snowy Owl.

### **Owatonna**

40 species, 7,880 individuals, Darryl Hill compiler, Jan. 3; noteworthy — 25 Red-headed Woodpeckers, Golden-crowned Kinglet, Rusty Blackbird, 137

Common Redpolls, Rufous-sided Towhee, 1,725 Lapland Longspurs.

### **Rochester**

46 species, 32,335 individuals, Vince Herring compiler, Dec. 27; noteworthy — Snow Goose, 25,000 Canada Geese, Lesser Scaup, Sharp-shinned Hawk, Goshawk, Red-shouldered Hawk, Marsh Hawk, Common Snipe, Red-headed Woodpecker, Golden-crowned Kinglet, Common Redpoll, White-throated Sparrow.

### **St. Cloud - Collegeville**

41 species, 3,941 individuals, Ed Hibbard compiler, Dec. 20; noteworthy — Wood Duck, Lesser Scaup, Hooded Merganser, Sharp-shinned Hawk, Bald Eagle, Red-headed Woodpecker, count week Pintail.

### **St. Paul**

59 species, 12,311 individuals, Kiki Sonnen compiler, Dec. 20; noteworthy — **Black-crowned Night Heron**, Pintail, Green-winged Teal, Northern Shoveler, Wood Duck, Lesser Scaup, Hooded Merganser, 7 Glaucous Gulls, **Thayer's Gull**, 4 Snowy Owls, Tufted Titmouse, Brown Thrasher, Rusty Blackbird, Common Redpoll, Field Sparrow, White-throated Sparrow.

### **St. Paul Northeast**

59 species, 11,033 individuals, Peris Fitzpatrick compiler, Jan. 3; noteworthy — Sharp-shinned Hawk, Common Snipe, Long-eared Owl, Red-headed Woodpecker, Yellow-bellied Sapsucker, Bohemian Waxwing, Rusty Blackbird, Brown-headed Cowbird, Pine Grosbeak, Hoary Redpoll, 293 Common Redpolls, Red Crossbill, Rufous-sided Towhee, **Chipping Sparrow**.

### **Sherburne N.W.R.**

28 species, 980 individuals, Richard Joarnt compiler, Dec. 20; noteworthy — none.

### **Wabasha**

40 species, 7,778 individuals, Don Mahle compiler, Dec. 20; noteworthy — 5001 Mallards, Golden Eagle, 13 Bald Eagles, Red-headed Woodpecker,

Tufted Titmouse, Brown-headed Cowbird.

#### **Walker**

22 species, 733 individuals, Harold Hanson compiler, Dec. 20; noteworthy — Black-billed Magpie, American Goldfinch, Dark-eyed Junco, White-throated Sparrow.

#### **Warren**

23 species, 2,533 individuals, Gladwin Lynne compiler, Dec. 20; noteworthy — Sharp-tailed Grouse, 9 Black-billed Magpies, Common Grackle, American Goldfinch, Dark-eyed

Junco, Tree Sparrow.

#### **Wild River**

36 species, 2,164 individuals, Tom Anderson compiler, Dec. 20; noteworthy — Red-headed Woodpecker, 92 Bohemian Waxwings, Pine Grosbeak, Red Crossbill.

#### **Willmar**

27 species, 606 individuals, Ben Thoma compiler, Dec. 20; noteworthy — none.

— 9735 North Shore Dr., Duluth, MN 55804.

## **PROCEEDINGS OF THE MINNESOTA ORNITHOLOGICAL RECORDS COMMITTEE**

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

The Minnesota Ornithological Records Committee (M.O.R.C.) had its annual summer meeting on August 1, 1981, and among the topics discussed were two items appropriate for publication here.

First, it was decided to change the voting "formula" for accidental species in category (a) — i.e., species for which there exists a preserved specimen or photograph. From now on, such species are acceptable if the vote is 7-0 or 6-1 in favor, unacceptable if the vote is 3-4, 2-5, 1-6 or 0-7 in favor, and the record is recirculated if the vote is 5-2 or 4-3 in favor; then if the second vote is 7-0 or 6-1 in favor the record is acceptable, and if the vote is 5-2 or fewer in favor it is unacceptable. Accidental species in cate-

gory (b), species for which there is no specimen or photograph, still require a unanimous vote for acceptance; since accidental species in category (c), possible escapes, also fit into an (a) or (b) category, the voting breakdowns described above also apply to these species accordingly. A chart of how the votes on each type of species applies appears below.

For further information on M.O.R.C. voting procedure or the definition of status categories, consult **The Loon** 52:150-152.

Second, it was decided to publish a list of all records voted on by M.O.R.C. Currently the plan is to print a list of those records voted on between January and June in the Fall issue of **The Loon**, and those from July to Decem-

Vote	Regulars and Casuals	Accidentals (a)	Accidentals (b)
7-0	accept.	accept.	accept.
6-1	accept.	accept.	} 2nd vote: 7-0 accept., 6-1 or worse unaccept.
5-2	accept.	recirc.	
4-3	recirc.	recirc.	} 2nd vote: 6-1 or 7-0 accept., 5-2 or worse unaccept.
3-4	recirc.	recirc.	
2-5	unaccept.	unaccept.	unaccept.
1-6	unaccept.	unaccept.	unaccept.
0-7	unaccept.	unaccept.	unaccept.

ber in the following Spring issue. Each listing will include the species, date, location, vote total, and the volume/page reference of the Note of Interest or article in **The Loon** (if any). Also, for unacceptable records, a summary of the reasons why the record was not accepted will be included. Note that an unusual sighting may be accepted for publication in **The Loon** without a vote by M.O.R.C. when there is a specimen or obviously identifiable photograph of the bird. Also note that some records accepted by M.O.R.C. may not be published in **The Loon** if the voting is completed after the appropriate seasonal report is printed, or if the documentation is considered too brief or not significant enough for a Note of Interest. However, all records voted on by M.O.R.C., whether acceptable or unacceptable, whether published or unpublished, are placed in the M.O.U. permanent file of Minnesota birds at U.M.D. in Duluth. (For information about or access to these files, contact Janet Green or Kim Eckert.)

Acceptable records voted on by M.O.R.C. January-June 1981:

- Osprey, 12-26-80, Lock and Dam #3, Goodhue Co. (vote 7-0)
- White-eyed Vireo, 10-21-80, Inver Grove, Dakota Co. (vote 7-0, **Loon** 53:59)
- Ferruginous Hawk, 10-1-80, Traverse Co. (vote 6-1, **Loon** 53:115-116)
- Prairie Falcons, Aug.-Dec. 1980, Wilkin, Clay and Traverse Co's (vote 7-0, **Loon** 53:104-107)
- Barrow's Goldeneye, 2-21-81, Black Dog L., Dakota Co. (vote 7-0, **Loon**

53:110-112)

- House Finch, 11-21 — 12-15-80, Minnetonka, Hennepin Co. (vote 7-0, **Loon** 53:109)
- Short-billed Marsh Wren, 1-25-81, Mower Co. (vote 6-1, **Loon** 53:110)
- Snowy Egret, 4-10-81, Carlos Avery W.M.A., Anok Co. (vote 7-0, **Loon** 53:164)
- Summer Tanager, 5-9-81, Frontenac, Goodhue Co. (vote 7-0, **Loon** 53:170)
- Little Gull, 5-23-81, Duluth, St. Louis Co. (vote 7-0, **Loon** 53:164)
- Western Tanager, 5-2-81, Austin, Mower Co. (vote 7-0)
- White-faced Ibis, 5-30-81, Breckenridge, Wilkin Co. (vote 7-0, **Loon** 53:164)
- Worm-eating Warbler, 5-5-81, Austin, Mower Co. (vote 6-1, **Loon** 53:172)
- Lazuli Bunting, 5-26-81, Grand Marais, Cook Co. (vote 7-0, **Loon** 53:162-163)
- ibis, sp., 5-3-81, Cottonwood Co. (vote 7-0, **Loon** 53:164-165)
- Carolina Wren, 5-25-81, Duluth, St. Louis Co. (vote 6-1, **Loon** 53:173)
- Summer Tanager, 5-25-81, Kandiyohi Co. (vote 7-0, **Loon** 53:170)
- Louisiana Heron, 5-4, 5, 6 & 8-81, Sherburne N.W.R., Sherburne Co. (vote 7-0, **Loon** 53:171)

Unacceptable records voted on January-June 1981:

- Ferruginous Hawk, 10-20-80, Lake Crystal, Blue Earth Co. (vote 1-6) Not enough description of this dark-phase buteo was given to eliminate the possibility of Rough-legged or

"Harlan's" Hawk. Identification was based primarily on the underside of the tail which "was clear of any banding and . . . as pale as the underside of the primaries," but such an under tail pattern is also shared by other species.

—Osprey, 2-12-81, Lake Owasso, Ramsey Co. (vote 1-6).

The description was not complete enough to eliminate the possibility of a light-phase Rough-legged Hawk, which also has dark wrist marks. In addition, the observer was not using binoculars at the time.

—Common Tern, 3-24-81, Winona, Winona Co. (vote 0-7)

Nothing in the description eliminated the possibility of Forster's Tern, which is more likely in early spring. Although the observers felt sure they were observing terns, there was not enough information to preclude a small species of gull. Also the birds were observed without binoculars.

—Mississippi Kite, 5-18-81, Oxbow Park, Olmsted Co. (vote 5-2, although 7-0 required for acceptance) The description and accompanying sketch were convincing enough for

most members, but an outside opinion from Mississippi Kite authority Robert Mengel of the University of Kansas was solicited. He stated that the bird was too large, that there was too much contrast between the light wing linings and dark flight feathers, and that Swainson's Hawk, which can have a pointed-wing falcon-like appearance and has the described under wing pattern, was a possibility.

—Black-necked Stilt, 4-18-81, Leech Lake, Cass Co. (vote 3-4)

Although there was a strong minority opinion that the "solid black wings with . . . white body underneath" and the "long, dangling red legs" could fit no other species, the majority had several reservations. The bird was apparently seen only in flight no closer than 200 yards away, was visible for only one minute, and was identified by inexperienced observers. For such an extremely unusual species (would have been a first state record), it was felt that there should be a better look and a more complete plumage description. — 9735 North Shore Dr., Duluth, MN 55804.

#### COMMON TERN COLOR-MARKING BY THE CANADIAN WILDLIFE SERVICE REQUEST FOR INFORMATION

During 1981, Dr. Hans Blokpoel of the Canadian Wildlife Service, color-marked Common Terns at two large colonies in the Great Lakes area, with the objective of determining the year-round distribution of the birds, especially their migration routes and wintering areas in Latin America. Adult Common Terns were trapped on their nests at the Eastern Headland of the Toronto Outer Harbor (Lake Ontario) and at Tower Island (Niagara River). Orange plastic tags were attached to both wings of the trapped adult birds. In addition, young Common Terns were marked with pink plastic wing tags at those colonies. One standard metal leg band and one colored plastic leg band (yellow with a black horizontal stripe) were put on each of the tagged birds.

If you see a Common Tern with a pink or orange wing tag please record the following details: place, date and color of the tag. If possible, also record the combination of numbers and/or letters on the tag (the two tags on any bird have the same color and the same combination of letters and numbers) and note which legs the plastic and metal leg bands are on. Thank you very much for your assistance. All reports will be acknowledged and should be sent to:

Bird Banding Office  
Canadian Wildlife Service  
Ottawa, Ontario, CANADA  
K1A 0E7

# Summer Season

(June 1 - July 31, 1980)

Janet C. Green

*The number of species seen in 1980, 260, was almost the same as the last three years. The only species considered resident not seen somewhere in the state in the summer of 1980 were Boreal Owl, Northern Three-toed Woodpecker, Rusty Blackbird and King Rail. More observers, 61, found breeding evidence for more species, 171, than in any previous year. Documentation for nesting was obtained for the first time in Minnesota for the Hawk Owl and Wilson's Warbler.*

A steady increase in the number of observers turning in reports produced a very good list for the 1980 summer season. Sixty-one reporters (some of them teams) saw 260 species and obtained breeding evidence for 171 species, the highest total to date. Breeding data are the most crucial information for bird distribution, and I will continue my admonitions for more complete reporting of nesting behavior. The nest and brood cards are filed by species and form the only precise record for compiling range maps. It is impossible to draw accurate breeding maps without records that include an indication of the type of nesting evidence even if it is only carrying food or feeding fledglings and a location to the township level because so many Minnesota counties are very large. So I will repeat my plea from last year: If you have actual nesting data, please put them on nest/brood cards where they can be filed by species and used in other distributional studies. Otherwise, the data get buried if put only on the seasonal report forms and are thus unretrievable. Additional cards can be requested from Kim Eckert or me. Every scrap

of information is useful, from carrying nesting material to feeding recently fledged young, and can be recorded on these cards, using a single card (either nest or brood) for each nesting attempt.

Repeating their performance from last year, Hiemenz turned the most breeding cards and the observers from Anoka County (LaFond, Howitz, Hilton et al.) had the most complete coverage. The Minnesota River Valley received increased attention, and shows a potential for establishing range extensions for several woodland birds. The Scientific and Natural Areas staff of the DNR carried out investigations in Becker and Pine/Chisago Counties that widened our geographical coverage. Also their work on prairie tracts in combination with the field work Eckert did for The Nature Conservancy (Loon 52:170-177) significantly improves our knowledge of this scarce habitat type. The Red Lake bog also is emerging from the unknown, thanks to the censuses by Niemi, Hankowski and Nevers (see *American Birds* 35:99-100). Now, if only there were an ardent birder in the middle of Koochi-ching County another large hole in

our maps could be filled.

The style followed in the species accounts is similar to last year's except that regional descriptions are used more than county listings. The reader is referred to the map from "Minnesota Birds" for proper geographical orientation. Southern regions refers to the three regions north of the Iowa border, northern regions means those adjacent to Canada, and western regions means the three regions along the western, prairie margin of the state. The following abbreviations are commonly used:

BBS — Breeding Bird Survey (U.S. Fish and Wildlife Service)

DNR — Department of Natural Resources

NA — Natural Area

NHA — Natural History Area

NWR — National Wildlife Refuge

SF — State Forest

SNA — Scientific and Natural Area

SP — State Park

WMA — Wildlife Management Area

#### **Common Loon**

Breeding reported from 11 counties, south to Ramsey (Lake Vadnais), Anoka, Wright, and west to Otter Tail, Roseau. Outside range seen in Freeborn (Helmer Myre SP), 7-9 (2), DG.

#### **Red-necked Grebe**

Breeding in Roseau, Marshall, Beltrami, Crow Wing, Todd, Wright; also seen in Mahnommen, Cass, Otter Tail, Nicollet.

#### **Horned Grebe**

Breeding in Marshall; also seen in Roseau, Pennington. Migrants in Duluth, 6-6 (3).

#### **Eared Grebe**

Breeding in Wilkin, Nicollet; also seen in Roseau, Marshall, Pennington, Stevens, Lac Qui Parle.

#### **Western Grebe**

Breeding in Marshall, Todd, Big Stone, Nicollet; also seen in Roseau, Otter Tail, Traverse, Douglas, Stevens, Lac Qui Parle, Kandiyohi, Martin.

#### **Pied-billed Grebe**

Breeding reported from 13 counties, including Cook; seen also throughout the state.

#### **White Pelican**

Observations clustered in three areas: West Central (Big Stone to Kandiyohi), South Central (Nicollet, Martin) and Northwest (Roseau, Marshall, Lake of the Woods). Also seen in Koochiching (Rainy Lake), 6-30 (2), DNR report.

#### **Double-crested Cormorant**

Breeding in Grant, Big Stone, Pope, Meeker, Anoka (Howard Lake); also seen in the central and western regions.

#### **Great Blue Heron**

Breeding reported from seven counties; seen also throughout the state. First migrants: St. Louis (Lake Superior), 7-19 (JCG).

#### **Northern Green Heron**

Breeding reported only from Sherburne; seen also throughout the state north to St. Louis (Duluth), Cass, Lake of the Woods (**Angle Inlet**).

#### **Little Blue Heron**

One to three birds at Big Stone NWR, Lac Qui Parle Co., June and July; also 6-18 (1), Pelican Lake, Grant Co. (GO).

#### **Cattle Egret**

Seen at Big Stone NWR, Big Stone Co. (2-5 birds) and Pelican Lake, Grant Co. (1-4 birds).

#### **Great Egret**

Breeding reported from Grant, Big Stone, Pope, Anoka; also seen in the central regions, the Southeast, and Northwest (Norman, Marshall). Not as widespread as last year.

#### **Snowy Egret**

Single bird seen at Big Stone NWR, Lac Qui Parle Co., June and July.

#### **Black-crowned Night Heron**

Breeding reported from Marshall, Grant, Watonwan, Hennepin; seen

throughout most of the state except the Northeast Quarter and the Southeast Region.

### **Yellow-crowned Night Heron**

Single birds seen in Ramsey (6-2 - 7-21), Big Stone (Big Stone NWR, 6-5 - 7-6; two birds on 6-11, KRE), Otter Tail (Orwell WMA, 6-8, GO), Marshall (Agassiz NWR, 6-6 - 24).

### **Least Bittern**

Reported from the western regions (north to Agassiz NWR), the Central Region, plus Nicollet and Anoka.

### **American Bittern**

Breeding reported from Lake, Aitkin, Beltrami; seen also throughout the state except south of the Minnesota River in the South Central and Southeast Regions.

### **Whistling Swan**

One bird at Paynesville, Stearns Co., 7-20 (RBJ).

### **Canada Goose**

Breeding reported from nine counties, all in the southern half except Grant; also seen north to Duluth, Aitkin and Marshall. Congregation of 100 birds in Duluth harbor (7-9).

### **Snow Goose**

Lingering in Nicollet, 6-13 (4), JCF.

### **Mallard**

Breeding reported from 18 counties; seen also throughout the state.

### **Black Duck**

Breeding in Cook; also seen in Lake, Itasca, Beltrami, Roseau, Marshall, Pennington, Anoka (6-21, KL), Freeborn (DG), Lac Qui Parle (6-7, KRE; 7-28, JCG), Traverse (6-10, KRE), Grant (Tenney BBS).

### **Gadwall**

Seen in the western regions plus Stearns, Anoka (7-13), Duluth (7-25, seven, KRE).

### **Pintail**

Breeding reported from Pennington, Aitkin, Stearns, Sherburne, Hennepin;

also seen from Lyon, Nicollet north to Duluth, Itasca, Marshall.

### **Green-winged Teal**

No breeding observed but observations from 19 counties in all regions except the Northeast.

### **Blue-winged Teal**

Breeding reported from nine counties; also seen throughout the state, scarce in the Northeast.

### **Cinnamon Teal**

Male in Lyon County, 6-22 - 7-6 (HCK et al.).

### **American Wigeon**

Breeding reported from St. Louis, Aitkin, Stearns; scattered observations from ten other counties south to Lyon, Nicollet.

### **Northern Shoveler**

Breeding reported from Pennington, Aitkin, Big Stone, Anoka, Hennepin; scattered observations from 15 other counties but none in the Northeast, Central, Southeast.

### **Wood Duck**

Breeding reported from 19 counties; also seen throughout the state including Lake, Cook.

### **Redhead**

Breeding reported from Pennington, Todd, Big Stone; scattered observations from most of the state except the Southeast, Northeast, and North Central (seen in Aitkin).

### **Ring-necked Duck**

Breeding reported from eight counties south to Anoka, Wright; also seen south and west to Nicollet, Murray, Lyon, Yellow Medicine, Stevens, Wilkin.

### **Canvasback**

Breeding reported from Marshall, Mahnomen, Hennepin; also seen in the western regions plus Nicollet, Aitkin (WN).

### **Greater Scaup**

Lingering in Roseau, 6-6 (6), D&GW.

**Lesser Scaup**

Breeding reported from Anoka (7y at Carlos Avery WMA, BH); scattered observations throughout the state including Cook (7-21, Grand Marais, KH).

**Common Goldeneye**

Breeding reported from Lake, St. Louis, Beltrami, Lake of the Woods; seen also throughout the Northeast and North Central plus single male in Wright (7-8, EH).

**BUFFLEHEAD**

Breeding again observed at East Park WMA, Marshall Co. (6-24, brood, DNR report).

**Surf Scoter**

Late migrants: 6-1 Ramsey (D&GW), 6-6 St. Louis (Stoney Point, P&M).

**Ruddy Duck**

Breeding reported from six counties; also seen east to Freeborn, Ramsey and north to Todd, Pennington.

**Hooded Merganser**

Breeding reported from Cook, Lake, Clearwater, Stearns, Ramsey, Rice; also seen scattered throughout the eastern and central regions plus Lac Qui Parle (D&GW).

**Common Merganser**

Breeding reported from Lake, St. Louis; also seen in Cass.

**Red-breasted Merganser**

Breeding reported from Cook, Lake, (Lake Superior only).

**Turkey Vulture**

Breeding reported from Wabasha, Clearwater; also seen throughout the Southeast, Northeast and North Central Regions plus Becker, Otter Tail, Wright (6-8, Pelican Lake).

**Goshawk**

Breeding reported from Clearwater (Itaska SP) and Pine (T40N, R17W, St. Croix SP); also seen in St. Louis, Cook.

**Sharp-shinned Hawk**

Breeding reported from Hubbard; also seen in Houston, Olmsted, Scott, Anoka, Pine, Cook, Lake, Lake of the

Woods, Beltrami, Otter Tail, Grant (P&M).

**Cooper's Hawk**

Breeding reported from Scott, Anoka, Becker; also seen in Olmsted, Kandiyohi, Otter Tail, Beltrami (JC), Hubbard, Cass, Aitkin. More observations than in the last few years.

**Red-tailed Hawk**

Breeding reported from Big Stone, Stearns, Hubbard; also seen in 47 other counties throughout the state.

**Red-shouldered Hawk**

Breeding reported from Aitkin (3y, WN); also seen in Becker, Wadena, Crow Wing, Chisago, Anoka. Not reported from the Southeast (traditional breeding area) at all.

**Broad-winged Hawk**

Breeding reported from 11 counties; also seen in 17 other counties west to Blue Earth (Mankato), Otter Tail, Red Lake, Roseau.

**Swainson's Hawk**

Breeding reported from Dakota; also seen in Mower, Washington (Marine-on-St. Croix), Wright (Silver Creek Twp.), Renville, Yellow Medicine, Lac Qui Parle, Swift, Big Stone, Traverse, Clay, Red Lake. Range appears to be expanding in the central regions.

**Bald Eagle**

Breeding reported from Houston, Cook, Lake, St. Louis, Becker; also seen throughout the North Central Region plus the St. Croix River in Pine, Chisago and once in Marshall (6-27, East Park WMA).

**Marsh Hawk**

Breeding reported from Stearns, Aitkin, Marshall; also seen in 28 other counties in the northern and central regions plus only Olmsted in the southern regions.

**Osprey**

Breeding reported from Cook, Lake, St. Louis, Itasca, Hubbard; also seen throughout the North Central Region plus Becker and Pine.

**Merlin**

Seen in Cook, Marshall (Agassiz NWR).

**American Kestrel**

Breeding reported from Cook, Morrison, Becker; seen also throughout the state.

**Spruce Grouse**

Breeding reported from Lake of the Woods; St. Louis; also seen in Itasca (Scenic SP), Lake, Cook.

**Ruffed Grouse**

Breeding reported in ten counties and seen in 17 other counties; all observations from Olmsted, Stearns, Clay (Bluestem Prairie, SNA staff) eastward.

**Greater Prairie Chicken**

Breeding reported from Clay; also seen in Polk, Mahnomen, Becker, Wilkin, Otter Tail, Wadena, Hubbard, Cass.

**Sharp-tailed Grouse**

Seen in Roseau, Marshall, Pennington, Beltrami and Aitkin.

**Bobwhite**

Breeding in Dakota (Castle Rock); also seen in Houston, Winona, LeSueur (LeCenter, EK).

**Ring-necked Pheasant**

Breeding reported from ten counties in the south half plus Duluth; also seen throughout the state north to Clay, Hubbard.

**Gray Partridge**

Breeding reported from Olmsted, LeSueur, Lyon, Sherburne, Stearns; also seen west of the Mississippi River in the southern and central regions plus the Northwest.

**Turkey**

Seen in Houston, Winona.

**Sandhill Crane**

Breeding reported from Kittson, Roseau, Pennington, Polk, Aitkin, Mille Lacs; also seen in Lake of the Woods, Marshall, Beltrami, Morrison,

Pine, Sherburne, Anoka (Carlos Avery).

**Virginia Rail**

Breeding reported from LeSueur, Hennepin, Stevens; also seen in Wabasha, Nicollet, Washington, Anoka, Sherburne, Wright, Stearns, Kandiyohi, Otter Tail, Wadena, Aitkin.

**Sora**

Breeding reported from LeSueur, Anoka, Beltrami; also seen in 32 other counties including Cook.

**Yellow Rail**

Seen in Aitkin, Wilkin (Akron Twp.), Pennington (Bray Twp.), Beltrami (Waskish).

**Common Gallinule**

Breeding in Todd (Lake Osakis); also seen in Anoka, Wabasha, Houston.

**American Coot**

Breeding reported in nine counties; also seen in 29 counties throughout the state except the Northeast.

**Semipalmated Plover**

Early migrants North: 7-26; South: 7-7, 7-8, 7-10.

**Piping Plover**

Breeding in St. Louis (Duluth Port Terminal, 3 nests), Marshall (Agassiz NWR, 4 nests), Lake of the Woods (Pine and Curry Islands, 12 nests). Early migrant North: 7-26.

**Killdeer**

Breeding reported in 14 counties; seen also throughout the state.



Killdeer nest, May 20, 1981  
Hill City, Aitkin County

**American Golden Plover**

Early migrants North: 7-24 (23) GO.

**American Woodcock**

Breeding reported from Lake, Sherburne, Anoka, Hennepin, Rice, LeSueur, **Redwood** (Minnesota River bottoms); also seen in 14 counties west to Freeborn (Helmer Myre SP), Nicollet (Nicollet), Stearns, Clay (Bluestem Prairie), Kittson. More observations in western counties in recent years.

**Common Snipe**

Seen throughout the state north of the Minnesota River Valley plus Houston, Freeborn.

**Upland Sandpiper**

Seen throughout the western regions and central part of the state east to the Twin Cities; also in Mower, Beltrami, Lake of the Woods.

**Spotted Sandpiper**

Breeding reported in five counties; seen also in 27 counties throughout the state. Early migrants North: 7-23 (JCG).

**Solitary Sandpiper**

Early migrants North: 6-18 (4) Lake (SGW), 7-2, 7-4; South: 6-17 Houston (M&EF), 7-1, 7-5, 7-6.

**Greater Yellowlegs**

Early migrants North: 6-29, 7-2, 7-3; South: 6-28, 6-29, 7-5.

**Lesser Yellowlegs**

Early migrants North: 6-29, 7-2, 7-3; South: 6-26, 6-28, 6-29.

**Willet**

Seen in Swift (6-10, Lake Oliver, NMH), Wilkin (6-21, Akron Twp., KRE). Early migrants: 7-12 Marshall.

**Pectoral Sandpiper**

Late migrants: 6-5 Lac Qui Parle. Early migrants North: 7-12; South: 6-29 (MJF), 7-10, 7-13.

**White-rumped Sandpiper**

Early migrants: 7-1 Marshall (Agassiz NWR).

**Baird's Sandpiper**

Late migrants: 6-3 Lake. Early migrants North: 7-4 (KRE), 7-12; South: 6-29 (MJF), 7-10, 7-26.

**Least Sandpiper**

Early migrants North: 7-4, 7-12; South: 7-2, 7-5 (two locations). Lingering in Houston 6-11, 18, 21 (M&EF).

**Dunlin**

Late migrants: 6-7 Wilkin.

**Semipalmated Sandpiper**

Late migrants: 6-5 Big Stone, 6-8 Duluth. Early migrants North: 7-3, 7-12; South: 6-29 (MJF), 7-1, 7-10.

**Western Sandpiper**

Early migrants North: 7-28; South: 7-27, 7-30.

**Sanderling**

Late migrants: 6-6 Duluth, 6-11 Pennington.

**Dowitcher Sp.**

Early migrants North: 7-3, 7-12; South: 6-29 (MJF), 7-8 (two locations).

**Stilt Sandpiper**

Early migrants South (only): 7-12, 7-15, 7-18.

**Buff-breasted Sandpiper**

Migrant at Agassiz NWR, Marshall Co. on 6-25.

**Marbled Godwit**

Breeding reported from Roseau, Marshall, Pennington, Wilkin; also seen in Kittson, Clay, Becker (Zimmerman Prairie), Traverse, Big Stone, Pope, Swift, Chippewa, Stearns (Lake George, T124R34, 6-17, three).

**Hudsonian Godwit**

Early migrants North: 7-31 Pennington (SS).

**American Avocet**

Nesting attempted in Marshall (Agassiz NWR, one infertile egg) and Lac Qui Parle (Salt Lake, three nests destroyed by rain, early June, KRE).

### **Wilson's Phalarope**

Seen in Anoka, Hennepin, Carver, Mille Lacs, Stearns, Yellow Medicine, Lac Qui Parle, Traverse, Wilkin, Mah-nomen, Polk, Pennington, Marshall, Roseau, Beltrami (Waskish), Itasca (RBJ).

### **Northern Phalarope**

Migrants in Pennington 7-12, 7-26.

### **Herring Gull**

Breeding reported in Lake, St. Louis; also seen in Cook, Pine, Chi-sago, Anoka, Aitkin, Crow Wing, Itasca, Beltrami.

### **Ring-billed Gull**

Breeding in Mille Lacs, St. Louis (Duluth, 4000+ pairs); also seen in 20 other counties in all regions except the Southeast.

### **Franklin's Gull**

Breeding in Marshall, Todd; also seen throughout the western regions plus Nicollet, Kandiyohi, Stearns and Mille Lacs Lake (1 to 3 birds, JB).

### **Forster's Tern**

Breeding reported from Nicollet, Todd, Marshall; also seen in the East Central, Central and western regions plus Duluth (6-6, two, JCG), Olmsted (7-31, three, JF).

### **Common Tern**

Breeding reported from Mille Lacs, Duluth (about 160 pairs); also seen in Aitkin, Crow Wing, Cass, Otter Tail (6-11, GO).

### **Caspian Tern**

In contrast to the many reports last summer, only seen at Duluth (6-27, six, KRE), Mille Lacs Lake (7-9, SE), Olmsted (7-31, Oronoco, JF).

### **Black Tern**

Breeding reported from Anoka, Wright, Stearns; also seen throughout the state except the Northeast plus Koochiching and Pine.

### **Rock Dove**

Present throughout the state but no data.

### **Mourning Dove**

Breeding reported from eight coun-ties; also seen throughout the state except Cook, Lake, N. St. Louis, Koochiching, Itasca.

### **Yellow-billed Cuckoo**

Breeding reported from Olmsted; also seen in 22 other counties through-out the state except in the Northeast and North Central Regions where it was observed only in the southern part of these regions.

### **Black-billed Cuckoo**

Breeding reported from Lake, Hub-bard, Clearwater, Beltrami; also seen in 51 other counties throughout the state.

### **Screech Owl**

Breeding reported in Jackson; also seen in Washington, Lyon, Lac Qui Parle, Stearns, Otter Tail.

### **Great Horned Owl**

Breeding reported from Olmsted, LeSueur, Pope, Stearns, Ramsey, Ait-kin, Crow Wing; also seen in 25 other counties throughout the state but scarce in the Northeast.

### **HAWK OWL**

First Minnesota nesting record: 5-9, seven young in nest, Aitkin, S. Loch; one also seen in Beltrami (7-13, north of Waskish, Loon 53:53-54). The second nest for Minnesota was found by Martin Kehoe in Lake of the Woods Co. southwest of Pitt. It contained six young in mid-June.

### **BURROWING OWL**

The two birds at Downer, Clay Co. were last observed on 7-9; the only indication of nesting was a hearsay re-port.

### **Barred Owl**

Breeding reported from Houston, Ramsey, Anoka, Crow Wing, Hubbard, Becker; also seen in 16 other counties in the eastern regions, Central and North Central Regions.

### **Great Gray Owl**

At least 23 nests reported by S. Loch from St. Louis, Aitkin, Cass, Itasca, Roseau; also seen in Lake, Koochiching, Beltrami, Lake of the Woods.

### **Long-eared Owl**

Breeding reported from St. Louis, Aitkin, Crow Wing, **Norman**; also seen in Beltrami.

### **Short-eared Owl**

Breeding reported from Lake of the Woods, Beltrami; also seen in Roseau, Aitkin, **Lyon** (6-14, HCK).

### **Saw-whet Owl**

Breeding reported from Cook, Lake, Crow Wing, **Norman**; also seen in Aitkin.

### **Whip-poor-will**

Seen in a narrow diagonal band from Houston to Lake of the Woods (includes Washington, Anoka, Sherburne, Crow Wing, Hubbard, Beltrami) plus Lake (five on the Tomahawk Trail, JCG).

### **Common Nighthawk**

Seen throughout the state.

### **Chimney Swift**

Breeding reported from Stearns; seen also throughout the state.

### **Ruby-throated Hummingbird**

Breeding reported from Olmsted; seen also throughout the state.

### **Belted Kingfisher**

Breeding reported from Cook, Morrison; seen also throughout the state.

### **Common Flicker**

Breeding reported from Lake, Clay, Big Stone, Stearns, Washington, Rice, LeSueur; seen also throughout the state.

### **Pileated Woodpecker**

Breeding reported from Cook, Morrison, Stearns, Houston; also seen throughout the state except south of the Minnesota River Valley in the Southwest and South Central Regions.

### **Red-bellied Woodpecker**

Breeding reported from LeSueur; also seen throughout the Southeastern Quarter west to Stearns and Nicollet plus Lyon (HCK), Pine (St. Croix SP, T40, T41, R17).

### **Red-headed Woodpecker**

Breeding reported from nine counties; also seen throughout the state in 43 other counties including Lake (Isabella, SGW).

### **Yellow-bellied Sapsucker**

Breeding reported from Houston, Stearns, Red Lake, Itasca, Lake, Cook; also seen in 30 other counties throughout the state except south of the Minnesota River Valley in the Southwest and South Central Regions.

### **Hairy Woodpecker**

Breeding reported from Lake, Anoka, Washington, LeSueur; also seen throughout the state.

### **Downy Woodpecker**

Breeding reported from Lake, Stearns, Anoka, Washington, Rice, LeSueur; also seen throughout the state.

### **Black-backed Three-toed Woodpecker**

Breeding reported from Cook, St. Louis, Itasca (Scenic SP); also seen in Lake, Lake of the Woods.

### **Eastern Kingbird**

Breeding reported from Lake, Washington, Anoka, LeSueur, Stearns, Lac Qui Parle; seen also throughout the state.

### **Western Kingbird**

Breeding reported from Pennington, Clay, Stearns, Big Stone, Hennepin; also seen throughout the western regions plus Hubbard, Cass, Crow Wing, Mille Lacs, Sherburne, Anoka and **Olmsted** (one, Chatfield BBS, DM).

### **Great Crested Flycatcher**

Breeding reported from Clay, Anoka; seen also throughout the state.

### **Eastern Phoebe**

Breeding reported from Beltrami, Clay, Morrison, Stearns, Anoka; seen also throughout the state.

**Yellow-bellied Flycatcher**

Late migrant: 6-10 Otter Tail. Breeding reported from Koochiching; also seen in Lake of the Woods, Itasca, Aitkin, St. Louis, Lake, Cook.

**Acadian Flycatcher**

Breeding reported from Rice (Nerstrand Woods SP), Houston.

**Willow Flycatcher**

Seen in Houston, Dakota, Ramsey, Hennepin, Anoka, Isanti, Stearns (Lovell Lake, RBJ), Yellow Medicine, Traverse, Wilkin, Clay, Norman, Pennington (all W. counties, KRE).

**Alder Flycatcher**

Seen throughout the northern regions plus Wilkin and Traverse (KRE both), Mille Lacs, Stearns, Sherburne, Anoka.

**Least Flycatcher**

Breeding reported from Lake, Itasca, Morrison, Stearns, Big Stone; seen also throughout the state.

**Eastern Wood Pewee**

Breeding reported from Clay, Big Stone, Stearns, Anoka; seen also throughout the state.

**Olive-sided Flycatcher**

Late migrants: 6-3 Duluth, 6-6 Nicolet. Seen in Cook, Lake, N. St. Louis, Carlton, Aitkin, Itasca, Koochiching, Lake of the Woods, Beltrami, Clearwater.

**Horned Lark**

Breeding reported from Clay, Stearns, Sherburne; also seen throughout the state except the Northeast Region (seen at Duluth only) plus Koochiching, Itasca.

**Tree Swallow**

Breeding reported from Lake, Beltrami, Morrison, Stearns, Big Stone, Anoka, LeSueur, Olmsted; seen also throughout the state.

**Bank Swallow**

Breeding reported from Morrison, Stearns, Anoka; seen also throughout the state except the Northeast Region

where reported only from Duluth, Cook (7-21 Grand Marais, KH).

**Rough-winged Swallow**

Breeding reported from Stearns; seen also throughout the state except the Northeast Region where reported only from Duluth.

**Barn Swallow**

Breeding reported from 12 counties; seen also throughout the state.

**Cliff Swallow**

Breeding reported from Pennington, Clay, Big Stone, Washington; seen also throughout the state.

**Purple Martin**

Breeding reported from Washington, Stearns, Anoka, Olmsted; seen also throughout the state.

**Gray Jay**

Breeding reported from Clearwater (Itasca SP), Beltrami, Itasca (Scenic SP), Carlton (Nemadji SF); also seen in Lake of the Woods, St. Louis, Lake, Cook.

**Blue Jay**

Breeding reported from Clay, Stearns, Anoka, Washington, LeSueur; seen also throughout the state.



Blue Jay nest, June 11, 1981,  
St. Cloud, Stearns County

### **Black-billed Magpie**

Breeding reported from Marshall; also seen in Kittson, Roseau, Pennington, Red Lake, Norman (Syre), Itasca (6-22, two, T146R25, TS).

### **Common Raven**

Seen in Cook, Lake, St. Louis, Itasca, Lake of the Woods, Beltrami, Clearwater (6-28 Itasca SP).

### **Common Crow**

Breeding reported from Stearns, Anoka; seen also throughout the state.

### **Black-capped Chickadee**

Breeding reported from Clay, Stearns, Anoka (58 nests! JLH), Washington, LeSueur, Houston; seen also throughout the state.

### **Boreal Chickadee**

Breeding reported from St. Louis; also seen in Cook, Lake, Itasca (Scenic SP), Koochiching, Lake of the Woods.

### **Tufted Titmouse**

Breeding reported from Houston (Beaver Creek Valley SP).

### **White-breasted Nuthatch**

Breeding reported from Pennington, Clay, Anoka, Washington, Dakota, LeSueur; also seen throughout the state including Cook (Kelly Lake).

### **Red-breasted Nuthatch**

Seen in Cook, Lake, St. Louis, Aitkin, Itasca, Beltrami, Clearwater, Anoka (Coon Rapids, Cedar Creek NHA), Ramsey (Lake Vadnais).

### **Brown Creeper**

Breeding reported from Lake; also seen in Cook, St. Louis, Itasca, Hubbard, Becker (Green Water Lake), Pine, Chisago, Houston, **Lac Qui Parle** (Lac Qui Parle SP).

### **House Wren**

Breeding reported from ten counties; seen also throughout the state.

### **Winter Wren**

Breeding reported from Cook; also seen in Lake, St. Louis, Carlton, Itasca, Beltrami, Clearwater.

### **Long-billed Marsh Wren**

Breeding reported from Stevens, LeSueur; also seen throughout the state including Cook (Hovland BBS).

### **Short-billed Marsh Wren**

Seen throughout the state; widely reported from all regions.

### **Mockingbird**

All records from early June: Beltrami (6-5, T155R30), Morrison (6-2, **vide** NMH), Ramsey (6-9 Shoreview), Lake (6-8 Knife River).

### **Gray Catbird**

Breeding reported from Morrison, Stearns, Anoka, Ramsey, Dakota, LeSueur; seen also throughout the state including Lake, Cook.



**Gray Catbird nest, June 7, 1981**  
St. Cloud, Stearns County

### **Brown Thrasher**

Breeding reported from St. Louis, Clay, Stearns, Sherburne, Anoka, Dakota, LeSueur, Olmsted; seen also throughout the state except Lake, Cook.

### **American Robin**

Breeding reported from 11 counties; seen also throughout the state.

### **Wood Thrush**

Breeding reported from Houston; also seen throughout the eastern re-

gions, North Central Region, plus Otter Tail (SM), Lac Qui Parle (JCG), Stearns, Mille Lacs, Sherburne, Carver, LeSueur (RBJ), Rice.



**Brown Thrasher nest, May 15, 1981**  
St. Cloud, Stearns County

#### **Hermit Thrush**

Breeding reported from Koochiching; also seen in Lake of the Woods, Beltrami, Itasca, St. Louis, Lake, Cook, Carlton, Pine (Kettle River NA, St. Croix NA).

#### **Swainson's Thrush**

Late migrants: 6-1 Clay, 6-4 Ramsey. Seen in Cook, Lake, St. Louis, Itasca, Aitkin, Mille Lacs (WN).

#### **Veery**

Breeding reported from Lake, St. Louis, Anoka (JLH); seen also throughout the wooded portions of the northern regions including Clay (Bluestem Prairie) plus Otter Tail, Douglas, Lac Qui Parle (JCG), Stearns, Benton, Mille Lacs, Pine, Chisago, Rice (OLJ), Olmsted (JF).

#### **Eastern Bluebird**

Breeding reported from Beltrami, Stearns, Anoka, Carver, LeSueur; also seen in the North Central, Central, East Central, Southeast, South Central

Regions plus Otter Tail, Becker and St. Louis (Duluth).

#### **Blue-gray Gnatcatcher**

Breeding reported from Olmsted; also seen in Houston, Winona, Ramsey, Sherburne (NMH), Nicollet (St. Peter, MJF), Blue Earth (Mankato, MJF).

#### **Golden-crowned Kinglet**

Seen in Cook, Lake, St. Louis, Itasca, Koochiching.

#### **Ruby-crowned Kinglet**

Seen in Cook, Lake, St. Louis, Aitkin (WN), Itasca, Koochiching, Beltrami, Wadena (Evergreen BBS).

#### **Sprague's Pipit**

Seen in Norman (Rockwell Twp., KRE), Clay (Keene Twp., KRE).

#### **Cedar Waxwing**

Breeding reported from Lake, Stearns, Sherburne, Anoka; seen also throughout the state.

#### **Loggerhead Shrike**

Breeding reported from Clay, Morrison, Benton, Dakota, Mower; also seen in Grant, Swift, Sherburne, LeSueur. Good increase over the last two years.



**Eastern Bluebird nest, May 15, 1981**  
St. Cloud, Stearns County

**Starling**

Breeding reported from Lake, Stearns, Dakota, LeSueur; seen also throughout the state.

**Bell's Vireo**

Breeding reported from Ramsey (Fort Snelling SP); also seen in Wabasha, Olmsted, Winona.

**Yellow-throated Vireo**

Breeding reported from Stearns; also seen throughout most of the state but absent in the Northeast, and Southwest and South Central south of the Minnesota River.

**Solitary Vireo**

Seen in Cook, Lake, St. Louis, Lake of the Woods, Itasca, Aitkin, Becker (Green Water Lake).

**Red-eyed Vireo**

Breeding reported from Clay, Morrison, Wright, Anoka; seen also throughout the state.

**Philadelphia Vireo**

Breeding reported from Cook; also seen in Lake.

**Warbling Vireo**

Breeding reported from Pennington, Red Lake, Morrison, Stearns, Big Stone, Anoka, LeSueur; also seen throughout the state except Lake, Cook, Koochiching.

**Black and White Warbler**

Breeding reported from Lake, St. Louis, Clearwater; also seen throughout the Northeast and North Central Regions plus Becker, Mille Lacs, Pine, Anoka. Migrant? on 6-4 Scott (RBJ).

**Prothonotary Warbler**

Seen in Houston.

**Golden-winged Warbler**

Breeding reported from Anoka; seen in Chisago, Pine, Carlton, St. Louis (Duluth), Aitkin, Crow Wing, Wadena, Otter Tail, Hubbard, Itasca, Clearwater, Lake of the Woods (3, Lude BBS; power line SE corner).

**Blue-winged Warbler**

Breeding reported from Hennepin,

Olmsted; also seen in Anoka (Cedar Creek NHA), Winona, Houston.

**Tennessee Warbler**

Seen in Cook, St. Louis, Becker (6-11 Green Water Lake). Early migrants North: 7-3 (2), 7-19 (12) Duluth Twp.; South: 7-17 Anoka, 7-21 Houston, 7-24 Washington.

**Nashville Warbler**

Breeding reported from Lake, Itasca, Clearwater, Anoka (Cedar Creek NHA); also seen throughout the Northeast and North Central Regions plus Roseau, Becker, Pine, Chisago. Early migrants South: 7-27, 7-28 Washington.

**Northern Parula**

Seen in Cook, Lake, St. Louis, Itasca, Beltrami, Clearwater.

**Yellow Warbler**

Breeding reported from Morrison, Stearns, Big Stone; seen also throughout the state.

**Magnolia Warbler**

Seen in Cook, Lake, St. Louis, Beltrami, Clearwater. Early migrant: 8-1 Washington.

**Cape May Warbler**

Seen in Cook, Lake, St. Louis.

**Black-throated Blue Warbler**

Seen in Cook, Lake.

**Yellow-rumped Warbler**

Breeding reported from Lake; also seen throughout the Northeast and North Central Regions.

**Black-throated Green Warbler**

Breeding reported from Cook; also seen in Lake, St. Louis, Itasca, Lake of the Woods, Beltrami, Clearwater, Becker (Green Water Lake). Early migrant: 7-23 Anoka.

**Cerulean Warbler**

Breeding reported from Otter Tail (SM), Olmsted; also seen in Stearns, Anoka, Houston.

**Blackburnian Warbler**

Breeding reported from Clearwater;

also seen throughout the Northeast and North Central Regions plus Becker (Green Water Lake), Pine (Kettle River NA).

#### **Chestnut-sided Warbler**

Breeding reported from Lake, St. Louis, Carlton, Clearwater; also seen throughout the Northeast and North Central Regions plus Roseau, Becker, Clay (Bluestem Prairie), Douglas, Mille Lacs, Chisago, Anoka, Hennepin, Ramsey.

#### **Bay-breasted Warbler**

Seen in Cook, Lake. Early migrants: 7-31 Duluth Twp.

#### **Blackpoll Warbler**

Late migrants: 6-11 (4) Becker (Green Water Lake). Early migrants: 8-5 Anoka.

#### **Pine Warbler**

Seen in St. Louis, Aitkin, Crow Wing, Itasca, Hubbard, Beltram, Clearwater, Becker, Ramsey (Lake Vadnais area, T. Soulen).

#### **Palm Warbler**

Breeding reported from Koochi-  
ching; also seen in Aitkin.

#### **Ovenbird**

Breeding reported from St. Louis, Beltrami, Anoka; seen also throughout the Northeast, North Central, Northwest (non-prairie), East Central, Southeast plus Rice, Nicollet, Wright, Stearns, Mille Lacs, Otter Tail.

#### **Northern Waterthrush**

Seen in Cook, Lake, St. Louis, Itasca, Beltrami, Hubbard, Pine, Chisago (Goose Creek, T36R20).

#### **Louisiana Waterthrush**

Seen in Houston, Olmsted (Marion), Pine (St. Croix SP, T40R17, SNA staff).

#### **KENTUCKY WARBLER**

Male, 6-8 Nerstrand Woods SP, Rice Co. (Loon 52:185).

#### **Connecticut Warbler**

Seen in Cook, Lake, St. Louis, Carlton, Pine (St. Croix NA), Aitkin, Itasca, Koochi-  
ching, Lake of the Woods,

Beltrami, Roseau, Otter Tail (7-1 Elizabeth Twp., GO).

#### **Mourning Warbler**

Breeding reported from Lake, Clearwater; also seen throughout the Northeast and North Central Regions plus Becker, Pine, Chisago, Anoka, Ramsey (Lake Vadnais area).

#### **Common Yellowthroat**

Breeding reported from St. Louis; seen also throughout the state.

#### **YELLOW-BREASTED CHAT**

Male, 6-2-20 Savage, Scott Co. (Loon 52:114).

#### **HOODED WARBLER**

Male, 5-19 - 7-1 Savage, Scott Co. (Loon 52:195-6); male, 6-16 Cedar Creek NHA, Anoka Co. (JLH).

#### **Wilson's Warbler**

Breeding (first for state) reported from Lake (Loon 52:182-3); also at another location in Lake, Cook.

#### **Canada Warbler**

Breeding reported from Hubbard; also seen in Cook, Lake, St. Louis, Itasca, Pine, Chisago (Goose Creek NA), Anoka (6-20 Cedar Creek NHA, JLH).

#### **American Redstart**

Breeding reported from Red Lake, Morrison; also seen throughout the state eastward from Olmsted, Nicollet, Stearns, Otter Tail.

#### **House Sparrow**

Breeding reported from Stearns, Anoka, LeSueur; seen also throughout the state.

#### **Bobolink**

Breeding reported from St. Louis, Clay, Hennepin, Olmsted; seen also throughout the state.

#### **Eastern Meadowlark**

Seen throughout the southeastern quarter of the state and northward to Duluth, Itasca, Lake of the Woods.

#### **Western Meadowlark**

Breeding reported from Clay, Otter

Tail, Stearns, Hennepin, Olmsted; also seen throughout most of the state except Koochiching, Itasca, N. St. Louis, Lake, Cook.

#### **Yellow-headed Blackbird**

Breeding reported from Todd, Stevens, Stearns, Anoka, LeSueur; also seen throughout most of the state except Koochiching, St. Louis (present at Duluth only), Lake, Cook.

#### **Red-winged Blackbird**

Breeding reported from Lake, Pennington, Clay, Lac Qui Parle, Stearns, Benton, Anoka, LeSueur; also seen throughout the state.

#### **Orchard Oriole**

Breeding reported from Big Stone, Lac Qui Parle, Rock; also seen throughout the Southwest and West Central Regions plus Clay, Nicollet, Blue Earth, LeSueur, Wabasha, Winona, Houston.

#### **Northern Oriole**

Breeding reported from Pennington, Clay, Morrison, Stearns, Anoka, Ramsey, LeSueur; also seen throughout the state including Cook.

#### **Brewer's Blackbird**

Breeding reported from Mille Lacs, Stearns, Sherburne, Anoka; also seen throughout the state north of the Minnesota River plus Lyon (HCK), Olmsted (7-26 JB).

#### **Common Grackle**

Breeding reported from Clay, Morrison, Stearns, Big Stone, Anoka, Washington, LeSueur; seen also throughout the state.

#### **Brown-headed Cowbird**

Breeding reported from nine counties; also seen throughout the state.

#### **Scarlet Tanager**

Breeding reported from Sherburne, Anoka; also seen in all regions except the Southwest, scarce in the West Central and South Central.

#### **Cardinal**

Breeding reported from **St. Louis** (Duluth), Dakota, LeSueur, Lac Qui

Parle; also seen throughout the southern half of the state plus Clay (7-10 Moorhead).

#### **Rose-breasted Grosbeak**

Breeding reported from Lake, Clay, Anoka, LeSueur, Jackson, Olmsted; seen also throughout the state.

#### **Blue Grosbeak**

Seen in Rock.

#### **Indigo Bunting**

Breeding reported from Clearwater, Sherburne, Anoka, Scott, Wabasha; seen also throughout the state including Lake.

#### **Dickcissel**

Seen in the southern part of the state north to Anoka, Stearns, Grant, Wilkin, Clay.

#### **Evening Grosbeak**

Seen in Cook, Lake, St. Louis, Itasca, Crow Wing, Cass, Clearwater.

#### **Purple Finch**

Seen throughout the Northeast and North Central regions plus Roseau, Anoka (JLH).

#### **Pine Siskin**

Widely scattered reports from Cook, Beltrami, Clearwater (7-3), Clay (6-25) Otter Tail (6-2), **Houston** (6-20, FZL).

#### **American Goldfinch**

Breeding reported from Clay, Sherburne, LeSueur, Olmsted, Houston; seen also throughout the state.

#### **Red Crossbill**

Widely scattered reports mostly of flocks (15-50) from Cook, Lake, Roseau (6-6), Beltrami (7-3), Itasca (6-16), Cass (6-14), Otter Tail (6-19-21).

#### **White-winged Crossbill**

Seen in Cook (6-13 KRE; 6-7, five, P&M), Lake (6-3, pair, Whyte).

#### **Rufous-sided Towhee**

Seen in a diagonal band from Houston to Beltrami and including Winona, Olmsted, Nicollet, Sibley, Scott, Dakota, Anoka, Sherburne, Chisago, Pine, Cass, Wadena, Hubbard, Itasca.

### **Lark Bunting**

Late migrants seen in Traverse (6-4 KRE), Lac Qui Parle (6-7 KRE), Rock (6-21 RBJ).

### **Savannah Sparrow**

Breeding reported from Lake of the Woods, Clay; seen also throughout the state.

### **Grasshopper Sparrow**

Seen throughout the state in all regions except the Northeast plus Pine, Itasca, Koochiching.

### **Baird's Sparrow**

Seen in Clay (two males, Keene Twp., KRE).

### **Henslow's Sparrow**

Seen in Winona (Kipp SP), Clay (Riverton, Prairie Twps., KRE).

### **Le Conte's Sparrow**

Seen throughout the Northwest Region plus Lake of the Woods, Beltrami, Cass, Aitkin, St. Louis (Duluth Twp.), Stearns (Roscoe, RBJ), Lac Qui Parle (Big Stone NWR, NMH).

### **Sharp-tailed Sparrow**

Seen in Roseau, Marshall, Pennington, Wilkin (T135R46), Aitkin (McGregor).

### **Vesper Sparrow**

Breeding reported from Benton, Sherburne, Anoka, LeSueur; also seen throughout the state except the Northeast Region.



**Vesper Sparrow nest, May 15, 1981**  
St. Cloud, Stearns County

### **Lark Sparrow**

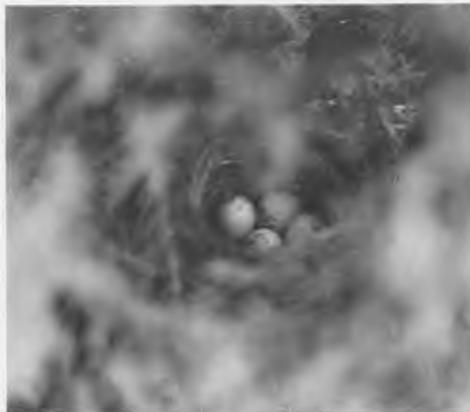
Breeding reported from Anoka; also seen in Sherburne, Wright, Nicollet, Otter Tail, Wilkin, Clay, Red Lake.

### **Dark-eyed Junco**

Breeding reported from Koochiching; also seen in Lake of the Woods, Itasca, Lake, Cook.

### **Chipping Sparrow**

Breeding reported from 11 counties; seen also throughout the state.



**Chipping Sparrow nest, May 31, 1981**  
St. Cloud, Stearns County

### **Clay-colored Sparrow**

Breeding reported from Beltrami, Sherburne, Dakota; also seen throughout the state, scarcer south of the Minnesota River.

### **Field Sparrow**

Breeding reported from Anoka, Sherburne; also seen throughout the southern half of the state plus Otter Tail, Clay (Buffalo River SP, KRE), Beltrami (Bemidji, JM).

### **White-throated Sparrow**

Breeding reported from Lake, Hubbard; also seen throughout the Northeast and North Central Regions plus Roseau, Becker, Pine, Chisago (Goose Creek NA), Anoka (Cedar Creek NHA).

### **Lincoln's Sparrow**

Seen in Cook, Lake, Beltrami.

**Swamp Sparrow**

Breeding reported from Stearns, LeSueur; seen also throughout the state.

**Song Sparrow**

Breeding reported from Stevens, Ramsey, LeSueur, Olmsted; seen also throughout the state.

**Chestnut-collared Longspur**

Seen in **Red Lake**, Clay (very common, Felton Prairie), Traverse (Clifton Twp.), Big Stone (Clinton Twp.).

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**Nest photos by Clare Mohs**

# BOOK REVIEWS

**Birds of Prey of the World** by Friedrich Weick (Paul Parey/Collins; \$48.00, £15.00; hard cover 8x11"; 159 pp.) is one of the better attempts at providing a practical overview to the identity, distribution, and relationships of all the diurnal raptors on a worldwide basis to have come forth. The illustrative and narrative material groups all members of a single genus together which enables a reader to easily grasp the entire constituency of a particular genus of raptors. For instance, in North America we are accustomed to regarding the genus **Circus** as having only one member, the Marsh Hawk. However, a quick glance at one of the color plates in this book rapidly expands one's concept of this genus through the depiction of 17 species and subspecies of **Circus**.

The book is divided into two sections. The first contains 160 line drawings and a German/English narrative that provides a general key for raptor identification based on size, color, shape of bills, feet, heads, and tails. This section is organized with the idea that an observer often may obtain only a fleeting glance of a wild raptor and note one or two characteristics. With these features fixed in one's mind, reference to one of the 17 subheadings such as "Size" (very large, large, rather large, small, medium sized), "Long Neck," "Bill Yellow," "Cere Blue or Bluish-green," "Facial Ruff," "Plumage Brightly Colored," and other produces a range of possibilities. This key then directs the observer to one of the pages in the color plate section for a smorgasbord of full-colored raptor profiles that depict the general features listed

in the key section. Section one is concluded by a taxonomic compendium of the order Falconiforms, broken down into Sub-orders, Super-families, and Families, and Genera. Each taxa listed has a short descriptive narrative of the main features of that genus accompanied by a skillfully done line drawing of the head and occasionally the leg and foot of a representative species from that genus. The reader is provided in this section an easily grasped overview of similarities and differences of all falconiforms.

The second section is comprised of 40 color plates on which are depicted 1144 figures of Old and New World falconiforms. All figures are presented in a left profile with interspersed small inserts showing significant features of head detail. Immature, adult, and color phase variations within a species are presented as well as sexually-related differences where such are a distinguishable feature. Each plate is accompanied by a table on the facing page that lists common and scientific names, world distribution, body weight, and overall dimensions of each species depicted. For the raptorophile that has attained that certain smugness associated with a working familiarity in identification of the three North American accipiters, I can only say, "brace yourself"; there are no less than seven plates containing 234 depictions of Accipiters! Buteos are accurately represented and one can easily compare all of the significant variant plumages of the Red-tailed Hawk and the Rough-legged Hawk.

The authenticity and accuracy of all of the material contained in the book are greatly enhanced by a warm-

ly written introduction by the late Leslie Brown. There is much good information in both the introduction and the book itself. It is not a field guide, nor is a light, one-time perusal likely to instill in one an appreciation of the effort expended in production of this work. It fills an important gap between the field guide and the all inclusive reference works on raptors. An appreciation for the detail is gained only by considerable study and usage in identifying those raptors with which one is familiar. The author is to be commended for a well-organized and well-illustrated work that is sure to enhance any person's understanding of the raptors.

—Dr. Patrick T. Redig

**Endangered Birds of the World.** The ICBP Bird Red Data Book. Compiled by Warren B. King. Smithsonian Institution Press, Washington, D.C. 1981. Pages not numbered; 1½ inches thick. \$8.95 paper bound, \$19.95 cloth.

The first edition of the International Council for Bird Preservation list of endangered birds of the world was published in 1966. A second, revised edition was published in loose-leaf format in 1978 and 1979. This 1981 edition is the first in a convenient, inexpensive paper-bound version.

Each of the 437 species or subspecies treated in this book is classified as endangered, vulnerable, rare, indeterminate, or out of danger. There is a brief summary of distribution, population size and trends, habitat, current conservation measures, major references, and remarks. A typical species account fills about a page. Several lists precede the main part of the book, including a list of "birds known or thought to have become extinct since 1600." Astonishingly, missing from this list is the Passenger Pigeon, the most famous extinct bird in the world.

Families with the largest number of threatened species are petrels, hawks, cracids, pheasants, rails, pigeons, and especially parrots, the winners among the losers. Island birds are predictably

well represented on the threatened list. The geographic summary shows a rich representation of threatened birds in every part of the world. We inflict ecological atrocities on our co-inhabitants of Earth with a mindless lack of geographic prejudice, always pursuing quick economic returns while ignoring long-term consequences.

This depressing volume is the indispensable reference for any organization or individual concerned about endangered species. It represents a first step that might improve the situation facing some of the unfortunate species listed in the book.

—Harrison B. Tordoff

**A Guide to Bird Finding West of the Mississippi** by Olin Sewall Pettingill, Jr.; 2nd edition; Oxford University Press, New York, 1981; 60 line drawings by George M. Sutton, 783 pages; \$25.00.

Finding fault with Pettingill's classic bird finding guides may be about as sacrilegious as criticizing Peterson's field guides, but somebody has to do it. While both men deserve all the credit in the world for what they have accomplished in the past, the sad fact is that both men have recently completed books which fail to live up to their authors' reputations. The reputation in question here was substantial enough to earn Pettingill an invitation to give the banquet address at the American Birding Association convention in Maine in 1980. Pettingill spoke the entire time about the concept and preparation of his guides, a revealing if not very entertaining address in light of the dubious quality of **Bird Finding West**.

Two relatively minor problems with this book caught my eye after I casually scanned the book for the first time. First is the issue of bird names. I suppose if an author prefers A.B.A. names over the more widely used A.O.U. names, that's his privilege. So what if some readers are confused and inconvenienced? But it's difficult, if

not impossible, to justify a combination of A.B.A. names and pre-1973 "unlumped" A.O.U. names like Myrtle Warbler (even Traill's Flycatcher is preferred over Alder and Willow Flycatcher!). Such a confusing combination of old and new names amounts to a sort of nomenclature anarchy that seems inappropriate for an ornithologist of Pettingill's stature.

The other minor difficulty is the index which is curiously incomplete. While all the bird and city names seem to be there, many of the birding locations are not indexed. Some are and some are not, and how come? For example, if you wanted to visit Cheyenne Bottoms because you heard it was one of the best birding spots on the Great Plains, you'd be out of luck unless you knew it was in Kansas — in this chapter you'd eventually find it under Great Bend. Such an inadequate index is especially amazing considering the author went out of his way to stress the importance of a good index in his A.B.A. address.

But there are more serious problems. One is that all too frequently the directions given to birding spots are either vague or inaccurate. In the Minnesota chapter, there is no way you'll find the Norris Camp headquarters of the Red Lake W.M.A. using the given directions (the recommended road going south out of Roosevelt will get you lost in the woods but will not get you to Norris Camp). Directions to the Rothsay W.M.A. get you only as far as the edge of the area, but to adequately bird the area more guidance is needed. The heron rookery at Big Stone N.W.R. is not visible for all practical purposes from the road described under Ortonville, nor is Mud Lake in Traverse Co. visible at all from Hwy. 236 as is claimed.

I also found several popular areas in southeastern Arizona with inadequate directions: Guadalupe Canyon is not indicated by signs as clearly as suggested; if you "pass through the hamlet of Continental, and follow a paved road and directional signs east-

ward," you might get to Madera Canyon, and then again you might not; while it's true the Sonoita Creek Sanctuary "is just south of the town" of Patagonia, there's no indication how to get to the access road; the excellent South Fork of Cave Creek Canyon has no directions, and the canyon as a whole is only located by saying it's west of Portal; and the only guidance you'll find to Ramsey Canyon is to "take State 92 south from" Sierra Vista — but how far do you go and where do you turn? Obviously most of the book's directions are probably accurate and complete, but the odds clearly indicate that there are many more poor sets of directions than the ones I found in just two of the states. But perhaps it should not be surprising that the author does not give better directions, since in his A.B.A. address he actually states "that maps, no matter how well drawn or detailed, cannot possibly substitute for route descriptions" — a misguided and novel idea, to say the least.

Another major fault of the guide is that too many good areas are omitted and too many mediocre ones are included. In Minnesota, the pelican colony at Marsh L., Gooseberry State Park, the heron rookery at General Shields L., the four Carver Park areas, Upper Rice Lake, Itasca State Park, the Waubun marsh and Sherburne N.W.R. are all nice enough areas, but none of them deserve the space devoted to them, and all but one or two of them could easily have been deleted. On the other hand, there is **no mention** of the McGregor marsh, Salt Lake, the Gunflint Trail, the Felton prairie, Mille Lacs, or La Crescent — and all without question are among the best birding spots in the state! Clearly, Pettingill's treatment of Minnesota is not just disappointing, it is downright poor.

South Dakota also fails to get quality treatment: Oakwood Lakes State Park, Big Bend Dam, Wall and Grass Lakes near Sioux Falls, and the White River valley are all second-rate areas

which could easily have been eliminated. Meanwhile, such excellent areas as the Ordway prairie, Sieche Hollow, and the Missouri River valley (not a single area mentioned between Pickettown and Sioux City!?) are omitted, and the fascinating country in Harding and Butte Counties is poorly described — no mention of the unique Cave Hills, no mention of the Baird's Sparrows and Sprague's Pipits found there, and no directions given to Sage Grouse areas (such would be "impractical," it is claimed).

Hopefully, other states get better treatment than Minnesota and South Dakota, but there's no reason why one would assume this — with so many errors in just two states, it's more logical to expect just as many in the other chapters. The sad part of this is that Pettingill could have easily improved things by asking his authorities for more than just isolated advice on individual locations. He should have also sent us the first drafts of the entire chapters, or at least a list of the areas he planned to include, so we could comment on his treatment of the entire state. (It would have been far preferable for me to criticize than than now in this review when it's too late.) Perhaps if this were done some inequities in the amount of coverage devoted to some states could also have been avoided: e.g., the Louisiana chapter is the second smallest in the book, even though Pettingill writes "John James Audubon once declared Louisiana his 'favorite portion of the Union,'" and the New Mexico chapter is the same length as Arizona's even though the latter state is far more productive.

I would be among the first to recommend Pettingill's books as convenient guides to some of the best birding areas in the United States. I can also enthusiastically compliment Sutton's drawings as beautiful complements to the text and the skillfully written introductions which capture the ornithological atmosphere of each state. **A Guide to Bird Finding West of the**

**Mississippi** may be a good book worth buying, but it certainly is not a great book as many think. Use it and you will undoubtedly find it helpful much of the time, but be prepared to get lost once in awhile and to miss out on some excellent birding spots.

—Kim Eckert

**The Audubon Society Handbook for Birders** by Stephen W. Kress; Charles Scribner's Sons, New York, 1981; 322 pages; \$17.95.

This was supposed to have been one of those books I'd have fun reviewing. There are few things more enjoyable, or easier, in life than ridiculing a bad bird book, and this one looked like a cinch. It already had two strikes against it: first, it had "Audubon Society" in the title — a sure sign of a bad book (e.g., those atrocious "Audubon Society" field guides); and second, it was a birding handbook — a genre of dubious value with a sad history (e.g., Scofield's misguided **Complete Outfitting & Source Book for Bird Watching** and Heintzelman's feeble **A Manual for Bird Watching in the Americas**). But maybe it wouldn't be all that easy — after all there was John Terres' magnificent **The Audubon Society Encyclopedia of North American Birds**, perhaps the finest bird book ever written, and the author did choose "Birders" rather than "Bird Watchers" in his title, so maybe it wouldn't be so bad after all?

It wasn't. In fact, with only a few reservations, I could almost be persuaded to call this a good book. Although I personally have little if any use for a book of this type, this handbook clearly appears to be the best of its type. I would question why anyone would spend \$18 on it — Godfrey's **The Birds of Canada** and Stewart's **Breeding Birds of North Dakota** each cost about this much but have infinitely more to offer the Minnesota birder, and I would question the quality of Anne Faust's line drawings which are mediocre at best. Nevertheless, most of the book seems accurate enough

and potentially useful.

Chapter 1 offers tips on how to identify and find birds. It's mostly helpful, but I doubt if something called the "buddy binocular" will ever catch on, and I wonder why techniques for leading a field trip are given — anyone experienced enough to lead a field trip would probably never buy this book in the first place. Chapter 2 on binoculars and telescopes is surprisingly accurate, considering how much misinformation is out on this subject. The next chapter, "Observing Birds," is also well done as it gives an introduction to bird behavior and gives suggestions for keeping field notes. Chapter 4 gives advice on photographing and sound recording birds in the field, but the part on how to give a slide program, like the field trip leading part of the first chapter, doesn't seem appropriate in a book such as this. A chapter called "Educational Programs" follows with a comprehensive listing of museum programs, research stations, birding tours, and even a state-by-state run-down of credit and non-credit ornithology courses. Chapter 6 catalogues state and nation-wide bird research programs for amateur birders. Covered are such things as the Breeding Bird Surveys, Colonial Bird Register, Christmas Bird Counts, bird banding

stations — even Hawk Ridge and **The Loon's** seasonal reports are included.

Chapter 7 has a convenient list of rare bird alerts and discusses periodicals on birds. There are problems here, however, when the author attempts to fit magazines into categories — **Western Birds** is placed inappropriately with state journals and newsletters, and the scholarly **Continental Birdlife** somehow appears in the same section with **Bird Watcher's Digest**. The last chapter on bird books, checklists and recordings also runs into problems when it starts making recommendations: those notorious Audubon Society field guides are not only recommended, but they are incorrectly credited with having range maps; and it is inexcusable that neither the excellent **The Birds of Canada** nor the fantastic Terres encyclopedia nor the comprehensive recordings of bird songs in the Peterson field guide series are "Recommended" — these three almost indispensable works are unjustly relegated to "Other Choices" sections.

So if you're in the market for a birding handbook, I'm willing to make a qualified recommendation of this one, even if I didn't have as much fun as I expected writing this review.

—Kim Eckert

# WINTER SEASON

(Dec. 1, 1980 - Feb. 28, 1981)

Kenneth J. La Fond

During this season, most of Minnesota enjoyed weather that would be much more typical of northern Arkansas or southern Missouri. Snow cover was absent most of the period with the exception of the northeast (normal snow cover of 10"-20" north of a line from Duluth to Kittson County) and the temperatures were mild. In the Twin Cities area, December was above average and January had an average temperature of 18°, well above normal. From January 17th to the 25th the highs were nearly all above 40° with the highest a 57° reading on January 25th. Several Twin Cities area golf courses opened for limited play! Also on the 25th, Redwood Falls reached a high of 68°. Winter returned in February with some -20° readings, but this only lasted a short time and the last half of the month again saw temps well above normal.

The mild weather was beneficial to both birds and birders. A total of 94 individuals representing 36 counties, submitted 76 seasonal reports. These numbers are about the same as last year's but the species total of 138 was four above last year's. The warm weather was apparently conducive to travel since records were submitted from 81 of Minnesota's 87 counties. Only Red Lake in the north and Traverse, Lincoln, Renville, Sibley and Faribault in the south failed to show up in the reports.

Waterfowl and raptors were more abundant with many unusual overwintering records. Among the passerines, a Short-billed Marsh Wren in Mower County provided the first state

winter record. A Cape May Warbler lingered at Stoney Point until 12-2 and three Yellow-rumped Warblers successfully overwintered in the south. The first documented House Finch appeared in Minnetonka and a Gray-crowned Rosy Finch also frequented a Minnetonka feeder. Yellow-headed Blackbirds were present for the third year in a row.

The warm weather in late February triggered an unusually early migration, particularly among the waterfowl and blackbirds.

## RED-NECKED GREBE

Two reports from Lake Superior: Cook 1-25 (5) (KMH) and Lake 1-19 (3) at Flood Bay (TS).

## Horned Grebe

Reported on Lake Superior from Cook 12-26 (2) (KL) and Lake 1-25 (3) (mob).

## Pied-billed Grebe

Overwintered in Nicollet (JCF) and CROW WING (TS). A very late migrant in Itasca on 12-28 (TL).

## DOUBLE-CRESTED CORMORANT

Reported on the Hastings CBC. A very late straggler in Ramsey 1-18 (FKB), details in *The Loon* 53:112, and a very early migrant (or a possible overwintering individual?) in Sherburne on 2-18 (EH).

## Great Blue Heron

Five reports: a late migrant in Redwood 12-27 (LJF); an early migrant in Mower 2-16 (RJ); January records from Willow River Township, Pine County (Mike Link) and Scott 1-25 (RBA);

and one that overwintered in **Otter Tail** 12-13 until 2-24 (GMO).

### **Black-crowned Night Heron**

Reported on the St. Paul CBC.

### **Whistling Swan**

Late migrants in **Lake of the Woods** 12-1, 12-3 (TD) and **Wabasha** 12-2 (250) and 12-4 (12) (WDM). Also a possible overwintering individual on the Mississippi River, **Sherburne** 2-18 (EH).

### **Canada Goose**

Reported from 30 counties throughout the state. Peak CBC numbers included **Rochester** 25,000, **Lac Qui Parle WMA** 22,000 and **Big Stone WMA** 15,750. Early migrants throughout the state in mid to late February and in **Clay** 2-23 (LCF) and **Marshall** 2-21 (FS).

### **Snow Goose**

Many more reports than usual. Overwintered in **Otter Tail** (3), **Anoka** (1), **Hennepin** (1), and **Olmsted** (3). Also reported from **Ramsey** 1-1, **Washington** 1-15 until 1-10 and **Dakota** 2-26.

### **Mallard**

Reported from 33 counties north to **Cook**, **Lake**, **Itasca** and **Hubbard**.

### **Black Duck**

Late migrants in **Itasca** on 12-1 (TL) and 12-13, **Otter Tail** (GMO). An early migrant in **Rock** on 2-28 (BJ). Also reported from **Cook** in the northeast and 10 counties in the southeast quarter of the state.

### **Gadwall**

Four reports from **Scott** and **Dakota** counties. Also, **Mower** 12-14 (RRK) and early migrants in **Pipestone** on 2-28 (BJ).

### **Pintail**

Overwintered in **Otter Tail** 12-13 until 2-13 (GMO) and **Ramsey**, **Sucker Creek** 1-1 until 2-28 (REH). Also reported from **Martin** and early migrants in **Rock** and **Nobles** on 2-28 (BJ).

### **Green-winged Teal**

Overwintered in **Martin** (EBK). A late migrant in **Stearns** on 12-6 (CM) and an early migrant in **Rock** on 2-28 (BJ).

### **American Wigeon**

Overwintered in **Martin** (EBK). A straggler in **Otter Tail** 1-1 (GMO) and early migrants in **Winona** 2-21 (JB), (JSD) and **Rock** 2-28 (BJ).

### **Northern Shoveler**

Late migrants on the St. Paul CBC, in **Nicollet** 12-12 (JCF), **Waseca** 1-1 (DJ) and 1-5 (JCF).

### **Wood Duck**

Late migrants in **Itasca** 12-12 (MS). Overwintered in **Crow Wing**, **Brainerd** (TS). Early migrants in **Rock** 2-28 (BJ). Also reported from **Hennepin**, **Olmsted** and **Martin**.

### **Redhead**

Overwintered at **Silver Lake**, **St. Louis** (LH). Late migrant in **Nicollet** 12-12 (JCF). Early migrants in **Dakota** 2-25 (KG) and **Nobles** 2-28 (BJ).

### **Ring-necked Duck**

A possible overwintering individual in **Anoka**, **Rum River** 12-24 and 2-21 (KL). Early migrants in **Wabasha** 2-24 (3) (WDM) and **Rock** 2-28 (BJ).

### **Canvasback**

Stragglers on the Mpls. north CBC and in **Wabasha** 12-1 (WDM).

### **Greater Scaup**

Stragglers in **Waseca** 12-31, 1-5 (JCF), (BJ) and an early migrant in **Dakota** 2-24 (KG).

### **Lesser Scaup**

Reports from **Ramsey** 12-26 until 1-20 (mob), **Dakota** 1-1 (JD), 2-23 (GP) and 2-25 (SC); **Nicollet** until 12-19 (JCF); **Olmsted** 1-31 (JB). An early migrant in **Sherburne** 2-18 (EH).

### **Common Goldeneye**

Reported from 24 counties.

### **BARROW'S GOLDENEYE**

A pair at **Black Dog Lake**, **Dakota County** 2-21 (ES) lingered into **March** (mob). Details in **The Loon** 53:110-111.

### **Bufflehead**

Overwintered in **Crow Wing** (TS) and **Otter Tail** (BMO). Also reported in Lake 1-25, 1-31 (mob) and St. Louis 12-15 (JG) in the north. Only south report Nicollet 12-12 (JCF).

### **Oldsquaw**

Six Lake Superior reports. Peaks of 150, 1-4 and Lake (TS) and 120, 1-19 Grand Marais (KMH).

### **HARLEQUIN DUCK**

Only report Lake 12-13 (2) (KE).

### **Hooded Merganser**

Overwintered in Dakota 12-29 until 3-1 (mob). A straggler in Itasca 12-5 (TCS) and an early migrant in Nobles 2-28 (BJ).

### **Common Merganser**

Overwintered in Crow Wing 1-14 until 2-28 (TS); also present in Otter Tail from 1-7 until 2-6 (GW). Reported from 14 additional counties.

### **Red-breasted Merganser**

Two reports: Cook, 1 female 1-5, 6 (TS) and Dakota, no details given (GS).

### **Goshawk**

Twelve reports from six north and eight south counties.

### **Sharp-shinned Hawk**

Reports from 12 counties, all in the southeast one-quarter of the state and Lake of the Woods (Angle Inlet) 2-26 (TD) in the far north.

### **Cooper's Hawk**

Four reports from Olmsted, Anoka, Hubbard and Beltrami. None of the reports included details to separate this species from the other two accipiters in the state.

### **Red-tailed Hawk**

Reported from 29 counties north to Lake, St. Louis and Lake of the Woods.

### **Red-shouldered Hawk**

Three reports: Crow Wing 1-17 (JoB) in the north and two Anoka reports from the south.

### **Rough-legged Hawk**

Reported from 37 counties north to Marshall, Beltrami, Koochiching, St. Louis and Lake. More widespread than last year, particularly in the north.

### **Golden Eagle**

Three reports, all in February: Winona 2-21 (JB, (JSD), Anoka 2-15 (KL) and Pennington 2-8 (KSS).

### **Bald Eagle**

Fewer reports than last year. Nine adults, only three immatures and 15 with no age given reported from 15 counties north to Lake, Itasca, Lake of the Woods and Beltrami.

### **Marsh Hawk**

Eleven reports: Mower, Swift, Nicollet, Olmsted, Anoka and Sherburne in the south and Lake of the Woods 12-4 (TD), Aitkin 1-24 (SC), Crow Wing, Crosby CBC, Marshall 1-22 (KSS) and 2-27 (FS) and Mahnommen 2-25 (OJ) from the north.

### **OSPREY**

One over the Mississippi River in Goodhue 12-26 (K. Scherk).

### **GYRFALCON**

Again present in Duluth (mob) and a dark phase individual in Lake 12-24 J. Church, fide (JG).

### **PRAIRIE FALCON**

Overwintered (3-4) in the Fargo-Moorhead area, Clay Co. (D. Evans). Also see the article by Steve Millard, *The Loon* 53:104-107.

### **Merlin**

Appears now to be regular in winter. Four reports: Clay 12-2 (LCF) from the north and Hennepin 12-20 (ES), Dakota 2-14 (JD) and Mower 12-15 (RJ) in the south.

### **American Kestrel**

More reports than usual, 26 counties in the south and Douglas, Grant, Otter Tail, Wilkin, Clay, Norman, Polk 1-21 (KL), Pennington, Overwintered (KSS), Aitkin 1-25 (SC), Itasca and Mille Lacs in the north.

### **Spruce Grouse**

Reported only from Lake of the Woods (TD) and Lake 12-29 (SS) and 2-17, 2-22 (KE). Absent from its usual area in Babbitt, St. Louis County (TH).

### **Ruffed Grouse**

Reported from 25 counties west to Fillmore, Olmsted, Hennepin, Stearns, Otter Tail, Becker and Marshall.

### **Greater Prairie Chicken**

Reported only from Pennington (KSS).

### **Sharp-tailed Grouse**

Five reports from Pine, Aitkin, Pennington, Marshall and Lake of the Woods.

### **Ring-necked Pheasant**

Reported from 31 counties north to St. Louis (Duluth Port Terminal), Mille Lacs, Otter Tail and Polk.

### **Gray Partridge**

Reported from 19 counties east to Olmsted, Sherburne and Lake of the Woods.

### **Turkey**

Reported only from Houston (MEF).

### **American Coot**

Overwintered in Otter Tail (5) (mob), Scott (RA) and Waseca, Loon Lake (JCF). An early migrant in Dakota 2-25 (SC).

### **Killdeer**

Three reports: Dakota 12-17 (one heard) (TC) and 2-6 (RBA). Also Houston 1-17 (JM).

### **Common Snipe**

Reported from Mower 12-15 (RJ), 12-22, 2-24 (RRK), Houston 12-21, 4 (JM) and 1-17 (FZL). Also on the St. Paul CBC.

### **Glaucous Gull**

More reports than last few years. Recorded in the north from St. Louis, Eagle Lake (11), 12-13, Duluth peak of (11) with (6) last seen on 1-3, all (KE) and Cook 1-24 (JSD). South reports from the Bloomington CBC (3) and the St. Paul CBC (7).

### **Herring Gull**

Reported from Cook, Lake, St. Louis (absent from Duluth from mid January to mid February. Reported also from Anoka, Ramsey, Dakota, Swift, Wabasha and Houston.

### **THAYER'S GULL**

Reported on the St. Paul CBC and from Dakota 1-2 (MW).

### **Ring-billed Gull**

Late migrants in Anoka, Ramsey and Dakota. An unusual report from Lake Superior, Cook 1-25 needs details (ES).

### **Rock Dove**

Reported from 33 counties throughout the state including 10,000 live trapped and removed from Duluth (KE).

### **Mourning Dove**

Reported from 23 counties north to St. Louis, Itasca and Beltrami.

### **Screech Owl**

Reported from Otter Tail in the north and 10 counties in the south.

### **Great Horned Owl**

Reported from 47 counties throughout the state including Roseau 2-27, nest with 3 eggs (FS).

### **Snowy Owl**

An invasion year with reports from 29 counties including an overwintering population of 25-30 in the Duluth Harbor (D. Evans).

### **Hawk Owl**

Lake of the Woods, Angle Inlet 12-10 (TD) and Baudette 1-13 L. Bernhoff). St. Louis (Ely) 12-25 through 1-26 G. Floyd fide (JG).

### **Barred Owl**

Reported from 25 counties.

### **Great Gray Owl**

Six north reports: Angle Inlet, Lake of the Woods (TD), Lake 2-16 near Lake Lillian, Jan McColl, fide (JG), Cass 12-14 near Bena, Ruth Kuchle fide (JG), Aitkin, six banded early Feb., fide (WN), Itasca 2-6 (TCS) and Becker 1-23 (DJ).

### **Long-eared Owl**

Reported from Anoka, Scott (5) (2-13 (DB), Olmsted and Fillmore.

### **Short-eared Owl**

A north report from Carlton 1-2 (RBA) and south reports from Stearns, Sherburne, Anoka, Dakota, Lyon, Dodge and Mower.

### **BOREAL OWL**

Only report: Angle Inlet, Lake of the Woods (TD) needs details.

### **Saw-whet Owl**

Ten reports, all between 1-17 and 2-25. South reports from Houston, Olmsted, Dakota, Anoka (both Cedar Creek and Carlos Avery) and Sherburne. North reports from Crow Wing, Mahnommen, Beltrami and Cook.

### **Belted Kingfisher**

Reported from 12 counties in the south and Otter Tail in the north.

### **Common Flicker**

Reports from 14 counties including a Red-shafted subspecies in Mower 2-7 (RRK) and a hybrid in Pipestone 2-28 (BJ), details in *The Loon* 53:117.

### **Pileated Woodpecker**

Reported from 31 counties.

### **Red-bellied Woodpecker**

Reported from 19 counties north to Pine and Crow Wing.

### **Red-headed Woodpecker**

Reported from 13 counties north to Crow Wing and Otter Tail.

### **Yellow-bellied Sapsucker**

Reported in January from Theodore Wirth Park, Minneapolis (mob).

### **Hairy Woodpecker**

Reported from 42 counties.

### **Downy Woodpecker**

Reported from 43 counties.

### **Black-backed Three-toed Woodpecker**

Nine reports from Cook, Lake, St. Louis, Itasca and Beltrami.

### **Northern Three-toed Woodpecker**

Reported from Poplar Lake, Cook County, eight sightings throughout the period (KMH), Isabella, Lake Co. 12-13 (RBA), no details given, and Babbitt, St. Louis County 12-12 and 2-5 (TH).

### **Horned Lark**

Overwintered in Pennington (KSS). Also reported from 31 other counties with early south migrants in Le Sueur 1-15, Houston 1-17 and Hennepin 1-20. Early north in Wilkin 1-18, Aitkin 2-14 and Angle Inlet, Lake of the Woods 2-23.

### **Gray Jay**

Reports from Cook, Lake, St. Louis, Aitkin, Itasca, Lake of the Woods and Becker.

### **Blue Jay**

Reported from 48 counties.

### **Black-billed Magpie**

Reports from Marshall; flocks of 1-8 all winter, Thief River WMA (FS) and Kittson (KSS) in the northwest. Also reports from Lake of the Woods, numbers up (TD), Koochiching 1-20 (MS), Itasca 2-27 (JC), Aitkin 1-13 - 2-26 (TS), (SC) and St. Louis, Sax-Zim 12-26 (KE) and Kelsey 1-25 T & J Hallet, fide (JG).

### **Common Raven**

Reported from 13 northern counties west to Marshall and Pennington.

### **Common Crow**

Reported from 45 counties including an overwintering report from Pennington (KSS).

### **Black-capped Chickadee**

Reported from 38 counties.

### **Boreal Chickadee**

Seven reports from Cook, Lake, St. Louis and Lake of the Woods.

### **Tufted Titmouse**

Present throughout the period in Wabasha (WDM) and Winnebago Township, Houston County (MEF).

### **White-breasted Nuthatch**

Reported from 36 counties.

### **Red-breasted Nuthatch**

Reported from 26 counties — more reports than last year.

### **Brown Creeper**

Reports from 25 counties.

### **SHORT-BILLED MARSH WREN**

Near Lyle, Mower County 1-25 (RRK) first winter record. Details in *The Loon* 53:110.

### **Brown Thrasher**

Three reports: Cottonwood CBC, at Duluth feeders until 1-31 (KE) and Ramsey 12-11 until 1-25 (REH).

### **American Robin**

Reported from 24 counties north to Lake, Itasca, Beltrami and Becker.

### **Varied Thrush**

Reports from Lake, Little Marais 1-24 (KE), St. Louis 1-24 (mob), Crow Wing and Aitkin (6+) from 12-1 until 1-10 (TS), Itasca, Marcel, early December, H. Rime, fide (JG) and Puposky, Beltrami County 12-7 until 1-3 (SY). Only south reports from Cedar Creek, Anoka 1-24 (JLH); and northern Anoka County 1-11 (J. Wolfe).

### **Hermit Thrush**

Three reports: Ramsey, Sucker Creek 1-1 (REH), Martin 1-23 (EBK) and Olmsted 1-8 until 2-28 (JF), (JSD).

### **Golden-crowned Kinglet**

Reported from Houston, Mower, Blue Earth, Olmsted and Le Sueur in the south. North reports from Cass and Otter Tail.

### **Bohemian Waxwing**

Reports from 22 counties south and west to Dakota (Hastings CBC), Hennepin, Wright, Douglas, Otter Tail and Wilkin.

### **Cedar Waxwing**

Reported from 31 counties north to Clay, Otter Tail, Todd and Chisago. It appears this species occupied roughly the southwesterly half of the state with the Bohemian Waxwing present throughout the remainder.

### **Northern Shrike**

Numbers down slightly for the third year in a row. Reports from 32 counties.

### **Starling**

Reported from 34 counties including early migrants in Marshall 2-20 (FS) and Lake of the Woods 2-22 (TD).

### **CAPE MAY WARBLER**

A straggler until 12-2 at Stoney Point, St. Louis (KE). Latest date on record and first December date.

### **YELLOW-RUMPED WARBLER**

No less than three individuals overwintered, one at the Halvorsen's feeder in Bloomington, intermittent in January and a daily appearance after Feb. 6 (BJ) and two at the Mahle's feeder in Wabasha, details in *The Loon* 53:114-115.

### **House Sparrow**

Reported from 30 counties.

### **Meadowlark Sp.**

Three February reports: Otter Tail 2-4 (SM), Cottonwood 2-20 (LAF) and Rock 2-28 (BJ).

### **YELLOW-HEADED BLACKBIRD**

Present for the third year in a row. Three reports: La Crosse CBC (20), Otter Tail (2) 12-20 (GW) and Nicollet, Swan Lake (4) on 12-5 and 12-12 and (2) on 1-2 and 2-20 (JCF).

### **Red-winged Blackbird**

Reported from 16 counties north to Cook, overwintered (MLS), Crow Wing and Otter Tail. Peak of 25,000 on the LaCrosse CBC. Early south migrants include Scott 2-14, Redwood 2-19, Nicollet (1500) 2-20 and Pipestone 2-28.

### **NORTHERN ORIOLE**

Two reports: A female at the Harrel's in Edina intermittently in December and twice in January, 1-11 and last seen on 1-15, fide (BJ). The second report of a male, Lake Minnewashta, Carver County seen on 2-12 and 2-14. During the second observation the individual was singing (John Ferm).

### **Rusty Blackbird**

Overwintered in Redwood. December report from Houston 12-12. February reports from Pipestone 2-28, Le Sueur 2-22, Nicollet 2-28, Houston 2-23 and Otter Tail 2-5. Early migrants in Pipestone on 2-28 (BJ).

### **Brewer's Blackbird**

Early migrants in Nicollet 2-28 (JCF), only report.

### **Common Grackle**

Reported from 21 counties north to Lake 1-25 (mob), Lake of the Woods 12-20, injured (TD), Aitkin (2) until 2-1 (SC), Otter Tail and Clay.

### **Brown-headed Cowbird**

Late migrants in Dakota, until 12-30 (MW), Nicollet, from 1-30 on (JCF), early migrants in Redwood 2-24 (LGF) and Pipestone 2-28 (BJ).

### **Cardinal**

Reported from 21 counties north to Crow Wing and Otter Tail.

### **Evening Grosbeak**

Reported from 27 counties, somewhat below normal with the exception of Crow Wing (75-150 throughout) (JoB).

### **HOUSE FINCH**

The first fully documented record for the state, 11-21 and 12-15, Minnetonka, David Bruggers, details in *The Loon* 53:109.

### **Purple Finch**

Reported from 25 counties north to Cook, Lake of the Woods, Aitkin, Beltrami and Pennington.

### **Pine Grosbeak**

A near normal season with reports from 25 counties south to Washington, Anoka, Pope, Otter Tail and Clay.

### **GRAY-CROWNED ROSY FINCH**

Minnesota's eighth record. First seen on 12-19 and subsequently at the Lewis feeder in Minnetonka until 1-23. Seen by many observers and details in *The Loon* 53:117.

### **Hoary Redpoll**

Reports up sharply from last year; reported from 12 counties south to Dakota.

### **Common Redpoll**

About near normal numbers with reports from 32 counties.

### **Pine Siskin**

Also about normal numbers with reports from 29 counties.

### **American Goldfinch**

Reported from 21 counties, down from the last two years. North reports only from Crow Wing and Lake of the Woods.

### **Red Crossbill**

Reported only from St. Louis, Aitkin, Crow Wing, Sherburne, Anoka and Dakota.

### **White-winged Crossbill**

More reports than last year. Nine northern counties, Hennepin, Anoka and Dakota in the central region and in the south, Olmsted 12-13 (JB).

### **Rufous-sided Towhee**

Two reports: Owatonna CBC and Camp Wilder, Washington County, overwintered (D. Oehlenschlager).

### **Dark-eyed Junco**

Reported from 28 counties north to Cook, Lake of the Woods, Crow Wing and Otter Tail.

### **Tree Sparrow**

Reported from 26 counties north to Cook 1-6 (TS) and Lake 1-24 (KG).

### **CHIPPING SPARROW**

Overwintered in Crosby, Crow Wing County (TS). Also reported on the Cottonwood and St. Paul CBC's.

### **FIELD SPARROW**

Reported on the St. Paul CBC.

### **Harris' Sparrow**

Two reports: Cottonwood 2-6 (LAF) and Foley, Benton County, overwintered (S. Loch).

### **White-crowned Sparrow**

One report of an overwintering individual in Foley **Benton** County (S. Loch).

### **White-throated Sparrow**

Overwintered at Isabella, **Lake** County (SS), Olmsted (JF) and Houston (EMF). Additional reports from Hennepin until 1-19 (SC), Sucker Creek, Ramsey County until 1-5 (REH), (BJ), Nicollet 12-12 (JCF), Dodge 2-1 (BJ) and Mower until 12-15 (RJ).

### **Fox Sparrow**

Only report: Nicollet 12-5 (JCF).

### **Swamp Sparrow**

Reported at the Fenstad's feeder, Little Marais (**Lake** Co.) until 1-18 (KE), (TS).

### **Song Sparrow**

Overwintered in Houston (MEF). January reports from Grand Marais, Cook County (JG), Anoka 1-24 (TW), Hennepin 1-26 (DB) and Mower 1-13 (RRK). February reports from Dakota 2-23 (CP) and Hennepin 2-18 (DB).

### **Lapland Longspur**

Reported on the Lambertson CBC. Also reported from Mower, Steele, Rice, Waseca, Nicollet, Blue Earth and Grant 2-28 (GMO).

### **Snow Bunting**

Reported from 29 counties throughout the state.

### **CONTRIBUTORS**

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#### **CORRECTIONS AND ADDITIONS**

The Loon 52:101,  
**THE WINTER SEASON, 1979-1980**  
Add, American Kestrel, reported from  
20 counties in the south and Clay, Wil-  
kin and Otter Tail in the north.  
**11008 Jefferson St. N.E.,**  
**Blaine, MN 55434**



**Black-billed Magpie — Drawn by Dana Gardner**



# NOTES OF INTEREST

**LAZULI BUNTING AT GRAND MARAIS** — After 2½ days of cloudy, rainy, foggy weather, the afternoon of May 26, 1981 was sunny with a very light SW wind. Birding was good as we had already sighted many migrants in and around the Grand Marais harbor (Cook County). At about 3:45 p.m. we parked to check the newly dug storm water settling pond for shore birds or waterfowl and noticed a small “different” looking bird fly up from the grass beside the Superior Inn and disappear over a gravel ridge toward the east bay beach. We left the car to investigate. The bird took flight down the beach toward the Kove, but not before we got a glimpse with binoculars of the brilliant blue head and rump and the two wing bars. I said “bunting” not having considered the possibility of seeing a Lazuli Bunting; Ken said “Lazuli Bunting” pointing out that the bird is one of the three on the cover of Robbins. We now continued our pursuit in earnest. The bird was spotted briefly at close range in some shrubbery just east of the Kove but flew again toward the highway, landing by a half demolished building (future site of the North Shore Federal Credit Union). This time we cautiously approached from two sides. After flushing a Song Sparrow and a Yellow Warbler, our prize appeared on a small poplar sapling, moved twice more to adjacent shrubbery and then to a gravel road edge. We approached to within fifty feet and observed the bunting catch and eat an ant. After feeding, the bird perched briefly on a small branch about three feet off the ground and then returned to the road edge. We observed the bird in excellent light, the sun behind us, for about ten minutes. The bird was a male Lazuli Bunting in spring plumage. The wing bars were nearly equal in size and the black around the beak to the eye was very noticeable. The head was an intense light blue; the bird appeared hooded with this intense blue as the back and wings were darker and duller. The rump, conspicuous in flight, was the same light blue as the head. The chest band below the blue of the head was dull orange-brown, darkest toward the center, and the belly was white. The bird did not sing or make any sound during our observation. We consulted our field guides and found that the new Peterson Eastern guide most closely portrays the individual we observed. Robbins does not do justice to the blue of the head and rump, Peterson’s Western guide does not show the distinct black around the beak to the eye, and both of these guides show the top wing bar as being much larger than the lower one; the wing bars were more nearly equal in the individual we observed. We returned to the area on the morning of May 27 with camera in hand but were unable to locate the bunting again. Although this was the first Lazuli Bunting that either of us has ever seen, the distinctiveness

of the plumage precludes the possibility of confusing it with any other species. **Ken and Molly Hoffman, Gunflint Trail, Box 58, Grand Marais, MN 55604.**



**Editor's Note:** On 24 May 1981 what may have been the same bird as that reported by the Hoffmans was seen and photographed by Gerald Finn at his cabin along Highway 61 near Lutsen, Cook County. Mr. Finn took the above photograph with a Minox GL Pocket camera at a distance of eight feet through a window! The recording of one and possibly two Lazuli Buntings on the North Shore of Lake Superior is a first for that part of the state. There are only four previous records for the state, all of these from the western tier of counties.

**SAY'S PHOEBE SEEN AT FELTON** — On May 17, 1981, while on a field trip with members of my Bird Identification class to the Felton prairie area, I spotted a Say's Phoebe sitting on a fence line two miles south and three miles east of Felton. My first impression of the bird was that it was a Western Kingbird which we had been looking for to add to our trip list, but when I put my binoculars on it I could immediately see its belly was pale orange rather than yellow. Its breast was grayish, and the head, back, wings and tail were all grayish brown. All of us were able to study the bird at leisure as it flew back and forth along the fence line along the road foraging for insects in the same manner as the several Eastern Kingbirds present. Eventually it flew back away from the road where we momentarily lost sight of it, but after a couple of minutes I could hear it singing and we were able to relocate it. Both its songs were given several times: a slurred whistle dropping in pitch — "phee-ur" — and a stuttering whistle with a rising inflection — "pr-r-r-reet." This represents the seventh Say's Phoebe record for Minnesota. **Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804.**

**ANOTHER LITTLE GULL AT DULUTH** — On May 9, 1981, while on a field trip with members of my Bird Identification class, I observed an adult

Little Gull flying past the Port Terminal. Although the gull was only seen in flight no closer than 150-200 yards away as it flew from Park Point and disappeared behind the high bridge to Superior, the small size, black hood, gray mantle, white trailing edge on the wings reaching to and slightly broadening at the wing tips, and obvious blackish under wings made identification easy. With the exception of 1980, Little Gulls have been seen every spring in Duluth since 1973 and will probably be listed as regular on the next Minnesota checklist. However, all of these records have been in late May or early June, making the date of this sighting at least a week or two earlier than normal. **Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804.**

**TWO ADULT LITTLE GULLS AT DULUTH** — On May 23, 1981 Dick Ruhme and I spotted two adult, breeding plumage, Little Gulls at the Port Terminal at Duluth. We had visited the area earlier (about 8:00 a.m.) and saw no "black-headed" type gulls. When we checked back at 11:00 a.m. we spotted two "black-headed" type gulls near the tern and gull nesting area. They were standing near a puddle which was apparently made by sand removal at that site. We were on an access road that led into the removal area. We were able to approach to within 30 yards of the birds with our car. Our description while viewing the birds undisturbed follows: Small size; Black hood(s) more extensive than Bonaparte's; No apparent eye-ring; Faint pinkish bloom on breast(s); Birds were courting and occasionally displayed dark under wings while doing so. We were 99+% convinced but stepped out to flush them and observed the dark under-wing linings when they flew. Later we saw a few adult Bonaparte's and noticed their prominent though partial eye-rings. **William Pieper, 11731 Evergreen Circle, Coon Rapids, MN 55433.**

**EARLY SNOWY EGRET IN ANOKA COUNTY** — At 7:15 a.m. on April 10, 1981, Pat and I approached the south end of Pool #4 at Carlos Avery Refuge, Anoka County. We noticed two egrets resting in the marsh area approximately 200 feet from the road. One appeared noticeably smaller than the other so I put the scope on the birds. The smaller one was all white, the bill had a touch of yellow at the base but was then light bluish throughout its extent. The legs were dark. To confirm the identification, I kept the scope on the birds until the smaller one moved. As it started to walk about, the yellow feet were very obvious and contrasted with the dark legs. The bird was again seen in the same area at 9:15 a.m. This apparently represents the earliest date for the state of Minnesota and is the first confirmed record for Anoka County. Ironically, this is the exact same spot where in May of 1976 I observed a small white heron (species undetermined). **Kenneth J. La Fond, 11008 Jefferson St. N.E., Blaine, MN 55434.**

**AN IBIS IN COTTONWOOD COUNTY** — The May 3, 1981 birdwatching trip for the Cottonwood County Bird Club was scheduled to leave from the Mountain Lake City Park at 1:30 p.m. The sky was overcast with a drizzling rain and the forecast was for more rain. Members were slow in arriving, not sure their time would be profitably spent. A total of 14 members left the City Park in four cars for Regier's Slough, the first stop. Gerber in Car No. 2 just recently returned from Texas where he had photographed White-faced Ibis noticed the ibis profile coming in for a landing on the shore perhaps some 200 yards away along with three Blue-winged Teal. Assuming that Car No. 1 had also seen it he went out in the rain to Car No. 3 to report to other experienced members to verify the sighting. Rupp and Duerksen

picked up their binoculars and agreed that it was indeed an ibis. Rupp and Duerksen had indentified a White-faced Ibis on August 29, 1971 and less than two miles from this location. Before cars No. 1 and No. 4 were notified, the bird took off, made a full circle and disappeared behind a hill while in a descending flight pattern. Car No. 1 and No. 2 left the area. The ibis was spotted again by the remaining observers, this time on the near side of the marsh only a 100 yards away from the observers. The view was better but the cloudy conditions and drizzle prevented positive identification as a White-faced Ibis. We believe it was a White-faced Ibis because according to the Petersen's field guide the Glossy Ibis does not appear in any area outside the coast of Florida and is rare in coastal Louisiana and Texas. The bird we saw was of a dark color and had the long down-curved bill typical of the ibis. Later it ambled behind a muskrat mound, then flew away and was not seen again that day. A number of us returned to the bog every day the following week hoping to again see it with more favorable light conditions, but none of us ever saw it again. The location of the Regier Slough: Mt. Lake Township: Section 1; Midway Township: Section 36 SE. **Cottonwood Bird Club, Edna Gerber, Secretary, 1300 2nd Ave., Mounatin Lake, MN 56159.**

**WHITE-FACED IBIS** — While walking along the north side of the Breckenridge Sewage Lagoons (Wilkin County) on May 30, 1981 at 8 p.m. with the sun at our backs, a long, all dark bird rose up from the east shore. It was much longer than the American Avocets and Willets flying around. It had a bill that curved sharply downward and a head and neck that were longer than the bill. The head was small and round. The feet trailed out behind. The body was a dark brown-red and the wings a dark green. There was an obvious patch of white outlining the base of the bill and the eyes which was noticeable without binoculars. It came within about 100 feet of us as it passed over the water several times. The sun was on it most of the time. It said a soft "quaa quaa" while flying. It then flew out towards Breckenridge. We have both seen all three species of ibises as well as cormorants, curlews, Whimbrels, etc. We watched the bird with 8.5 x 44 Swift Audubon Mark II binoculars. There was no wind and the day was warm and sunny. **Ann McKenzie and Jon Peterson, 1360 Nokomis Ave. # 11, LaCrosse, WI 54601.**

**MORE MUTE SWAN RECORDS FROM DULUTH** — As reported previously in *The Loon* (52:116-117), presumably wild Mute Swans appeared several times in the Duluth area in spring 1980. Again in 1981, there were several definite or probable sightings of Mute Swans in Duluth, all along the North Shore of Lake Superior between the Lester and Talmadge Rivers: March 15, seven unidentified swans reported to me (probably Mutes since Whistling Swans had not yet arrived); one on April 11, two on April 18 and one on May 11 (all four definite Mutes seen by me — orange bills with black at the base clearly visible); and early June, two unidentified swans reported to me (probably Mutes because of the date). Like last year, it seems likely these sightings were repeated observations of the same individuals, but it is again interesting that none of these swans could be relocated by other observers searching for them a few hours later. Also, as many as four Mute Swans were seen in Allouez Bay at the base of Wisconsin Point in Superior in May, with a pair still present here in June and possibly nesting. Although no nesting evidence was found, the habitat in Allouez Bay seems ideal, and it seems likely that Mute Swans could prove to be regular in Duluth/Superior in future years. **Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804.**

**EARLY BLACK-THROATED BLUE WARBLER** — Following is the sequence of events on the sighting of a male Black-throated Blue Warbler on 1 May 1981. At approximately 1735 hours I arrived at the site where two days previous loggers had cut down a Jack Pine tree containing a Great Horned Owl nest with three young. The area was a Jack Pine/Norway Pine stand but was clearcut, leaving only a sprinkling of birch, aspen, and shrubs. I knew it was a longshot, but I had planned on putting up an artificial nest structure and placing the one remaining young into it — with the hopes that the adult owls would finish raising it. Well, there wasn't any suitable foster nest trees in the area and I was about to leave when I saw the warbler. The bird was only 15 feet away when I first saw him. The day was clear, calm winds, the sun to my back, and the view of the bird unobscured by any foliage. The colors stood out plainly — black face and throat, white underparts, bluish back — and I immediately recognized him as a male Black-throated Blue. After letting me observe him for some 10 seconds he flitted behind a patch of hazel. While walking back to the pickup, I remembered reading that Black-throated Blues weren't very common, so I decided to take the ever famous "once-more-to-make-sure" look. This time, with 8 x 40 Bushnell Insta-Focus binoculars I viewed the bird from 30 - 40 feet for at least 30 seconds. No longer of an observation was needed, with excellent viewing (for a change) I had no trouble making out the particulars. No doubt about it, a nice male Black-throated Blue Warbler. The sighting was in section 30, T139N R34W, Hubbard Twp., Hubbard County, MN. In case you're interested, the young owl was successfully raised by foster parents. **David H. "DJ" Johnson, DNR Forestry, Box 113, Park Rapids, MN 56470.**

**CINNAMON TEAL PROLONGS VISIT** — There seem to be two classes of rare birds: those that remain for only a few hours or even minutes, and those that are present long enough to allow any birder ample time to see them. The latter was the case with a male Cinnamon Teal that spent several weeks near Millerville in Douglas County. Lisa Bennett, a Michigan DNR employee on assignment in Minnesota, and Rick Yates, a Minnesota DNR employee, found this bird on 25 April 1981. The location was one-half mile west of Millerville in a small temporary pothole immediately opposite the driveway of dairy farmer Walt Thoennes. I informed the Thoennes' of the unique status of the bird and they subsequently kept an eye on it for several weeks. My wife and I first saw the bird on April 27. Distance of observation was usually less than 150 feet, which made viewing this splendid drake a real pleasure. The bright rusty plumage and dark red eye were very striking, especially in strong sunlight. Initially there were many male and female Blue-winged Teal present, but as the days passed their numbers dwindled until finally only the Cinnamon Teal and one female teal, species unknown, remained. The male Cinnamon Teal assumed an active — even aggressive — role in courtship, and frequently chased away rival Blue-wingeds. Occasionally the birds would fly across the road to a shaded stock pond that was totally devoid of vegetation. There they could carry on their courting antics, busily chasing each other about without encountering emergent aquatic growth. I made seven trips to the area and noted a steady drop in the water level. The male Cinnamon Teal and its supposed mate became more sedate as the weeks passed. Mr. Thoennes, who was the last to see the male on or about May 22, believed the birds may have mated and were nesting in the area. This possibility was never confirmed, as we

did not wish to disturb the birds or allow predators to follow our scent to the nest. **Steve Millard, 617 E. Cavour, Fergus Falls, MN 56537.**

#### **NESTING ATTEMPT BY BLUE-GRAY GNATCATCHERS IN ROCK COUNTY**

— Having discovered a nesting pair of Blue-gray Gnatcatchers in Otter Tail County in June of 1979, I was particularly elated to find another “out of range” pair in Blue Mounds State Park, Rock County, on May 19, 1981. Early that morning I was walking through the picnic grounds when I heard the familiar call of the species. Stopping to investigate, I soon discovered a male and female Blue-gray Gnatcatcher actively bringing material to a nest in a medium-sized bur oak. Placement of the nest was similar to that of the pair in Otter Tail County (*Loon* 51:171), but was much lower, only fifteen to eighteen feet from the ground. The nest tree was only a few yards from the mowed area of the picnic grounds. By climbing a large rock adjacent to the tree, observation could be made from approximately thirty feet with the nest slightly above eye level. The birds’ sexes were easily told at this close range; the male’s black eyebrow was very distinct. The following day my wife and I returned to the nest site with Bob Chance, the park naturalist. Bob had just returned from the Mankato area, where he had searched unsuccessfully for the very species that was now building a nest in “his” park. Viewing the nest from numerous angles, we could see that it was at least seventy-five percent completed. Bob promised to keep an eye on further developments, and we went home on May 21, anxious to receive good news in the weeks to come. I contacted him in mid-June to check on the gnatcatchers’ status. He informed me that the Memorial Day flood of people had apparently been too much for the birds, for they were gone and the nest had begun to disintegrate. But an attempt at nesting had been made, and would likely have succeeded had disturbance been minimal. Even though the nest cycle wasn’t completed, this event is encouraging because it is the first known nesting effort by this species in SW Minnesota. There are only two other sightings for the Blue-gray Gnatcatcher in this part of the state. **Steve Millard, 617 E. Cavour, Fergus Falls, MN 56537.**

**BOBWHITE IN ROCK COUNTY** — The evening of May 18, 1981, my wife and I arrived in Blue Mounds State Park for several days of camping and birding. The following morning I was up early and left the campground, working my way through the wooded area between the two small lakes. I had passed the swimming beach and was checking the dense thickets on the southeast side of the lower lake, hoping to find a Yellow-breasted Chat or Mockingbird. From behind me, I heard a clearly whistled two-note call, the second note louder and up-scale. I immediately thought “Bobwhite,” but dismissed it at first because the species hadn’t been recorded in SW Minnesota for many years. Presently I heard the call again. It was repeated several times per minute, and sounded close. I’d forgotten how far the Bobwhite call carried, however, and the bird was several hundred feet further away than I suspected. Reaching the edge of a brushy ditch, I flushed a small, chunky, reddish-brown bird with a short gray tail. It flew about 200 feet down the lakeshore and perched low in the dead branches of a large ash. It was then I noted the distinct black and white facial pattern of the male Bobwhite. He continued calling as I hurried back to camp to tell Diane the news. When we returned the bird had left the tree, but we could hear two or three calling in the area. We had a brief look at another male before it flushed. The following morning we walked along the north side of the lower lake and located two calling male Bobwhites. The calls are loud

and carry over long distances. At least two of the birds seemed to favor relatively exposed perches six to ten feet above ground. Exposed birds were wary and did not allow a close approach. Twice we flushed individuals that were twenty to forty feet away, but they were well hidden in dense cover and were not seen until they "exploded" from the brush. The males began calling early in the morning and continued until 10:00 A.M. or later. I estimated a minimum of three to four calling males, although this figure is possibly low. No female Bobwhites were seen, but park employees have seen them. I believe the Bobwhites at Blue Mounds are wild birds, not escaped or released. The park naturalist, Bob Chance, told me he knew of no releases in the area. This does not preclude the possibility that someone in the area may be raising and releasing, or losing, birds to the wild. However, the birds we observed were skittish, showing no signs of being accustomed to humans. They probably came up from NW Iowa or SE South Dakota. The past two winters have been mild, which according to sources I checked, tends to induce a northward movement in the species. During the summer of 1980, only one or two Bobwhites were seen by park personnel. The extremely mild winter of 1980-81 undoubtedly insured the survival of the birds already present, and subsequently prompted a few more individuals to move in. The pioneer Minnesota ornithologist P. L. Hatch, in Robert's *Birds of Minnesota*, states "few of them survive our severe winters . . . when favored by a succession of mild winters (they) rapidly multiply again." Dr. Roberts believed it likely that "southern birds spread northward into the state during years of plenty." The habitat in which we saw these birds is ideal for them. Numerous brushy draws with thick tangles of weeds, grasses, shrubs, and exposed jumbled rocks are found in the northeast portion of the park. Other sections of the park also contain suitable Bobwhite habitat. If the coming winters are the norm for Minnesota, these birds will probably disappear until conditions are again favorable for their survival. Other interesting sightings we had at Blue Mounds included an early male Blue Grosbeak (May 21), Rufous-sided Towhee (western race), ten Caspian Terns, two Willets, and a pair of Blue-gray Gnatcatchers (see separate note). **Steve Millard, 617 E. Cavour, Fergus Falls, MN 56537.**

**RED-THROATED LOONS AT DULUTH** — Dick Ruhme and I were birding the Duluth area on July 3, 1981. At about 9:30 A.M. we were looking over Lake Superior from the stand located near the far end of the recreation area on Minnesota Point. It was a gray overcast day with the sun not a factor. To our right we noticed at a considerable distance a couple of loons. It was apparent from the way they had their rather slender bills pointed upwards that they were Red-throated Loons. As we watched, more and more birds appeared (in two groups) until we were able to count twelve on the surface at one time. As they worked their way towards us, close to shore, we could see the red throats, gray heads and necks, with the streaking up the back of the necks. They approached so close (50 yards) that we could see their **red eyes**. Several (two or three) were still in basic (non-breeding) plumage but the rest were adult breeding-plumaged birds. Due to their frequent diving we reached a count of twelve only once, despite several attempts to determine if there were more than twelve. They merged into one group as they passed by often only a few yards from shore. There are two previous July dates (3rd & 6th) both from Lake Superior. Optical equipment used: 7 x 42 Trinovid; 8 x 30 Nikon & Swift spotting scope at 20X. **W. R. Pieper, 11731 Evergreen Circle, Coon Rapids, MN 55433.**

**AN EARLY WESTERN Tanager** — From 29 April to 6 May 1981 an adult plumaged Western Tanager came to the Jon Barber residence at 39 Island Road, North Oaks, Ramsey County. As can be seen from the photo the bird came primarily to a suet feeder in the Barber's back yard. Ray Glassel and I saw the bird on 30 April and many other birders saw the bird during the next few days. Most records for the Western Tanager have occurred from 8 May to 30 May during the height of the spring migration in Minnesota. The above sighting represents the first April record for the species in the state. **Robert B. Janssen, 10521 S. Cedar Lake Rd. #212, Minnetonka, MN 55343.**



**Western Tanager, North Oaks, Ramsey County — Photo by Jon Barber**

**CAR-KILLED BIRDS** — During the six days from May 11 to May 16, 1979, an extreme instance of bird mortality occurred along U.S. Highway 61 between Lake City and Reads Landing, Wabasha County, towns located adjacent to the Mississippi River in southeastern Minnesota. Gary Grunwald, Fisheries Manager, noted scores of warblers darting out over the highway to snatch up the hordes of bufflehead insects (**Chironomidae**) whose hatching that year coincided with the peak of warbler migration. The insects were attracted to the warmer air over the blacktop road. To quote Grunwald, "It was virtually impossible to drive this stretch of roadway and not hit birds . . ." In a sample stretch of 60 yards along one shoulder of the highway he counted 42 freshly dead birds, largely Yellow-rumped, Yellow, Palm, and Magnolia Warblers with a few American Redstarts and Scarlet Tanagers. From this sample, he calculated that in six days on the six-mile stretch of

road, there were some 88,704 birds killed. Gary felt this would be a minimum figure as many birds fell in the taller grass off the road edge and were not counted. **Wm. H. Longley, Department of Natural Resources, Centennial Building, St. Paul, MN 55155.**

**SUMMER Tanager AT FRONTENAC** — We first saw the immature male Summer Tanager at 2:00 P.M. on May 9, 1981. The bird was seen in the area around the historical marker just off Highway 61 and the junction with the Villa Maria entrance road near Frontenac, Goodhue County. We observed him for about 15 minutes; we were able to come quite close and he stayed most of the time in the lower branches of the trees. About an hour and a half later we came back to the area and saw him again for about 15 minutes. **Alice Johnson, 1300 Galtier, St. Paul, MN 55117.**



**Editor's Note:** The above photo of the Summer Tanager at Frontenac was taken by William Stjern of 1337 North Avon St., St. Paul, MN. Mr. Stjern stated, "The bird remained in the oaks of the roadside park for the two days I was there with the St. Paul Audubon Society. The dates were May 9 and 10, 1981."

**A SUMMER TANAGER IN KANDIYOHI COUNTY** — The bird was seen at Blomkest, Kandiyohi County on May 25, 1981 in a grove surrounding a farmstead. The following is a description of the observation: red bird, slightly smaller than a Robin, with wings and tail somewhat darker but not black. No markings on face and no crest. Bill, light-colored but not really yellow. Green patches noted on lower belly when observed from below. We observed the bird for several hours off and on and from many angles. He stayed in this particular grove all day flying from tree to tree in short flights. **Jann Anderson, Rt. 1, Box 41, Watertown, MN 55388.**

**LOUISIANA HERON AT SHERBURNE NWR** — A Louisiana Heron was observed at Sherburne NWR, Sherburne Co., on May 4, 5, 6 & 8, 1981 by a number of observers. The bird was intermediate in size between a Great Blue Heron and a Northern Green Heron and was less wary than either of these species. The bird walked approximately 20 feet while we observed it for 10 - 15 minutes. The shape was somewhat similar to a Great Blue Heron but the white plumes and white belly were prominent. The remainder of the bird was more or less battleship gray. No vocalization was heard. This description is from observations by myself, Steve Haasch on May 6, 1981. Other observations were by Wesley Thompson on May 4 and 5 and by Pat Larson on May 8. **Richard Joarnt, Sherburne National Wildlife Refuge, Zimmerman, MN 55398.**

**YELLOW-CROWNED NIGHT HERON'S NEST AT PIG'S EYE** — There are five Yellow-crowned Night Heron nests on Pig's Eye Island this year. Pig's Eye Island is located on the Mississippi River in St. Paul. Two of the nests have four young. I observed one of these nests from a blind for a few days this spring. One of the adults stayed near the nest all day, standing first on one leg and then the other. The other adult was presumably catching food. When it returned at about 5:00 p.m. it proceeded to feed the young. The herons may also feed sometime in the late morning, though the one time I observed this the adult did not seem to have much food to give to the young. There are 997 heron nests on Pig's Eye Island this spring. 87.3% were Black-crowned Night Herons, 9% were Great Egrets, 3% Great Blue Herons and the five Yellow-crowned Night Heron nests. **Susan Richardson, 1223 S. 6th St., Minneapolis, MN 55415.**



**Young Yellow-crowned Night Herons, Pig's Eye Island, Ramsey County**

**Photo by Susan Richardson**



**Adult Yellow-crowned Night Heron, Pig's Eye Island, Ramsey County.**

**Photo by Susan Richardson**

**WORM-EATING WARBLER AT AUSTIN** — A Worm-eating Warbler was seen on May 5, 1981 in the swampy river floodplain along the Cedar River at Austin, Mower County. The bird was seen for about two minutes at approximately 4:30 p.m. I saw it in low brush at two different locations below eye level. It was in a small pocket of warblers working through the woods. When they flew on I was unable to follow. The body was plain olive-brown and the bird was warbler-size. The head had very pronounced black stripes. They were not smooth stripes as some field guides show, they were more jagged like the old Pough Audubon Guide shows. There wasn't as much contrast in color (light and dark) as the guides show on the head. No vocalization was heard. **Ron Kneeskern, 1208 5th St. NW, Austin, MN 55912.**

**CAROLINA WREN AT DULUTH** — At 11:40 A.M. on May 25, 1981 I had been observing the many warblers, orioles, tanagers and thrushes grounded by the fog and drizzle of the 24th and 25th along Park Point in Duluth. At this particular time we were about one block north of the ball field and I was out of the car observing the birds in the bushes along the harbor side of the road. There were literally hundreds of migrants in the area and as one would come into view I would put the glasses on it and try to identify the species. One individual landed on an exposed branch about eye level no more than 10-15 feet away and as I looked at it I realized it was a wren with a very distinct and noticeable white eye stripe. I realized this was different from the wrens I was familiar with so I kept the glasses on it for perhaps 30 seconds or so. I noted a very clear, pale gray, unstreaked throat, no noticeable streaking but a very definite rusty wash on the flanks and belly and a rusty brown crown and upperparts. The tail was cocked upwards and was lightly barred. At first I had about a  $\frac{3}{4}$  profile view and as the bird moved I was looking at it from about a 90° angle. I did not pay much attention to the tail but did not notice any white edgings (or lack thereof). I then walked back to the car (about 20 feet away) to get Pat and the guide books. When we returned the individual was still there but left momentarily and flew into the woods east of the road, not to be seen again. We then wrote down notes from which the above was taken. An hour or so earlier we heard a House Wren in the area but this was not that species.  
**Ken LaFond, 11008 Jefferson St. N.E., Blaine, MN 55434.**

**GREAT GRAY OWL IN ANOKA COUNTY** — At 20:15, 11 June 1981, I was driving on Anoka County 24 through the Cedar Creek Natural History Area and noticed a large gray owl perched on a metal fence post 20 ft. off the road, in a small field. As I passed, the owl turned and looked at me with yellow eyes. Realizing it was a Great Gray Owl, I immediately drove to the laboratory 0.5 miles east and picked up Neil Bernstein, John Haarstad, and Barbara Delaney. We returned and watched the owl with and without binoculars for 2-3 minutes before it flew into the woods. While on the post the bird assumed an alert posture several times, probably in response to passing cars. Three days later, at 15:00, a Great Gray Owl (likely the same individual) was seen at the same location by myself and Stephen Maxson. These sightings apparently constitute the second sight record of a Great Gray Owl at the Cedar Creek Natural History Area. The only previous report occurred during the 1980 Christmas Bird Count. **George-Ann Maxson, Cedar Creek Natural History Area, 2660 Fawn Lake Dr. N.E., Bethel, MN 55005.**

**SUMMER SAW-WHET OWL OBSERVATION FROM SOUTHEASTERN MINNESOTA** — Green and Janssen, writing in *Minnesota Birds, Where, When and How Many* state that there are no summer observations of the Saw-whet Owl for the 20th Century for the southeastern region of Minnesota. This statement may now be modified to include a 1981 observation. During the night of June 9-10, 1981 a Saw-whet Owl was heard calling from a steep wooded hillside, adjacent to the Whitewater River, in Whitewater State Park near the Cedar Hill Campground, Winona County. The call was first noted at approximately 9:45 p.m. and heard again at about 10:30 p.m. During the early part of this observation there were long periods of time during which no calls were given. Calling was nearly continuous from 11:00 p.m. until near mid-night at which time I went to sleep. I awakened twice during the early morning hours at about 1:30 a.m. and 3:15 a.m., the owl was heard calling at both of the above times. Shortly after 11:00 p.m. the

frequency of calling was determined; 100 calls were given in about 53 seconds. An attempt was made to tape record the call but due to stream and wind noise the quality of the recording was at best poor, but adequate to document the above report. **Oscar L. Johnson, 7733 Florida Circle, Brooklyn Park, MN 55445.**

#### **YELLOW-BELLIED SAPSUCKER DISPLACED BY COMMON FLICKER —**

On 3 June 1981 I observed what appeared to be the takeover of a Yellow-bellied Sapsucker nest by a Common Flicker in Itasca State Park, Clearwater County, Minnesota. At the time I was conducting a woodpecker survey of the Bear Paw campground for an ornithology class project at the University of Minnesota Forestry and Biological Station. The male sapsucker was first seen excavating the cavity on 27 May. Its hole was 33 feet up in a large but dead red pine that leaned over Lake Itasca. Three flicker-type holes of past years were also in the pine, but the new hole was typically that of a sapsucker. The male sapsucker was excavating again on 1 June, and the following day a female sapsucker was in the hole. However, on 3 June I saw the tail feathers of a Common Flicker sticking out of the hole, and later watched the bird, a female, throw wood chips from the then enlarged opening. Both male and female flicker occupied the hole at the time I terminated my study on 5 June. The nesting tree was in an open recreational area with much human disturbance around the tree, although the nesting hole itself was not disturbed. The open habitat appeared more suitable to flickers than to sapsuckers which prefer large aspens in fairly dense forests. The fact that the tree evidently had been used by nesting flickers in the past was probably another factor. **Michael T. Murphy, 2904 Oregon Avenue So., St. Louis Park, MN 55426.**

**BRANT AT DULUTH —** Grandma's Marathon brought visitors other than runners to Duluth on 20 June 1981. On that cool, foggy morning about 10:00 A.M. my husband Dave and I were walking along the shoreline of St. Louis Bay near the airport on Park Point. We noticed two mallard sized birds with necks extended standing on the airport runway. At first glance we thought they were drake Mallards. Something about their appearance prompted us to examine them more closely. They were very wary of our presence but seemed hesitant to leave. With the aid of our binoculars we saw that they were not Mallard drakes. They had dark heads and the black color extended down over the breast. They appeared to be wearing hoods, the end of the dark color was so well defined. They had white markings on the side of the neck which did not extend around the back of the neck. (On subsequent sightings we could see that the white neck marks did not meet in the front either.) Their bills were black and small; legs were dark. Their underparts were white and the back and sides were tan and light brown. When they flushed, their tail feathers showed a wide white "V." They flew out over the bay and settled in the water within our sight. We thought they might be Brant and confirmed this when we got back to the car and saw the picture in Peterson's new field guide. I would like to mention the white neck markings were much more pronounced than Peterson depicts them. We sighted them again at 7:30 P.M. on 24 June. They appeared to be feeding on tall grasses on the edge of the runway. They flew to the bay when a plane taxied out. On 26 June about 9:30 A.M. they were again standing on the runway. One always appeared a little larger with a slightly longer neck than the other. This day we were able to deter-

mine that neither bird was banded nor marked in any obvious way. When we approached they flew out over Lake Superior and we lost sight of them. A few days later on 30 June about 7:30 P.M. Dave saw them flying over the marina at the recreational area on Park Point. The last reported sighting was on 1 July 1981. Many people had the opportunity to observe and photograph the Brant during this period. According to W. E. Godfrey in 'Birds of Canada' . . . "spring migration is late, and in the Maritimes many Brant linger at favourite feeding places until the first week of June." The known late migration, their wariness, lack of bands, their unhampered flight, and the fact they appeared to be a mated pair, all suggest these were wild birds rather than escapees. **Burnett Hojnacki, 140 Greenwood Lane, Duluth, MN 55803.**



**Brants (in fog) Park Point, Duluth, June 27, 1981 — Photo by Warren Nelson**

#### **JULY SIGHTING OF A BLACKPOLL WARBLER IN AITKIN COUNTY —**

On July 18, 1981 I drove out to the public access to Sissabagamah Lake which is approximately four miles east of Aitkin. I drove out to look for a possible Yellow-billed Cuckoo which had been reported to me. I began walking the road and came across two Black-and-white Warblers which are quite common in the area. I walked another two hundred feet and spotted what I thought was another Black-and-white Warbler back in the trees. I decided to try to pish it out and make sure. When I did, it flew to a branch about 15 to 20 feet away. It was a warbler about the same size as a Black-and-white Warbler and although black and white in color it had a completely black crown, white underparts and definite white cheeks and streaked back. It was a Blackpoll Warbler. It sat there for about 30 seconds and then flitted back into the woods without making a sound. I tried pishing again without any success. I tried again the next three days but I didn't see it again. **Warren Nelson, 603 2nd St. N.W., Aitkin, MN 56431.**

## 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.



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## SUGGESTIONS TO AUTHORS

The editors of **The Loon** invite you to submit 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 Kim Eckert. See inside front cover.

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Minnesota Point, Duluth, 4 July 1981

Photo by Marj Carr ..... Front Cover

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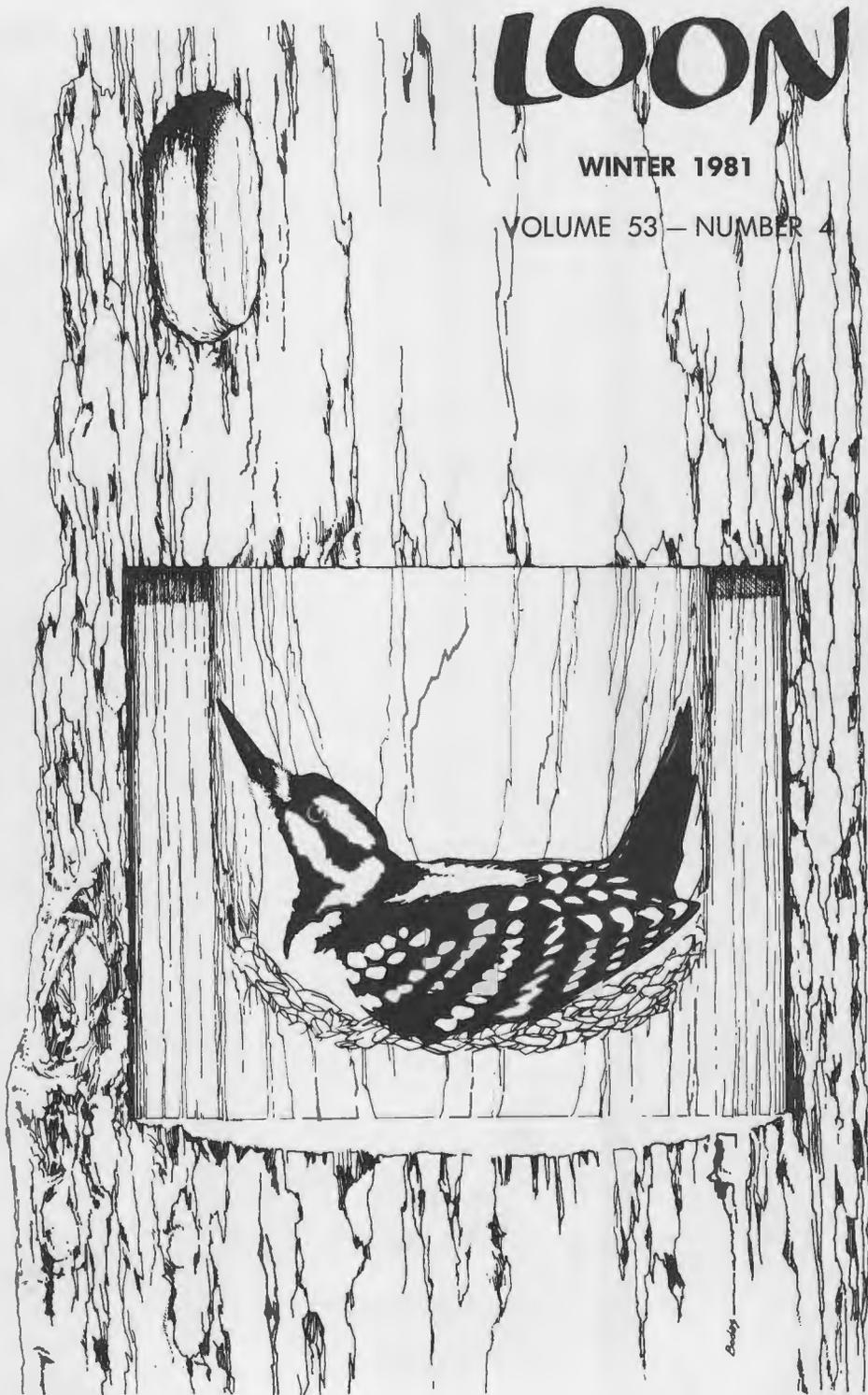
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# The LOON

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*Becky*

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# SURVIVAL IN WINTER: THE IMPORTANCE OF ROOST HOLES TO RESIDENT BIRDS

Robert A. Askins<sup>1</sup>

Only a small proportion of the birds that nest in Minnesota spend the winter in the state. This is not surprising, since the extreme cold of a Minnesota winter dramatically increases the amount of food birds need at a time when food is least abundant. The insects that most bird species depend upon during the summer are hidden and dormant during the winter, so food is difficult to find at a time when birds require a large amount of energy to maintain their high body temperatures. There are only a few sources of high-energy food available in winter, and the birds that can use these efficiently generally do not migrate. For small birds the primary winter foods are seeds, buds, winter berries (such as wild grape and poison ivy), and bark insects. In open areas most of the winter birds are seed-eaters, but bark-foraging birds predominate in forests. For instance, in a deciduous woods where I have studied the ecology of woodpeckers for five years, there are only twelve species of birds that are regularly resident throughout the year, and seven of these are bark-foragers (Table 1).

Insects are available throughout the year in bark crevices and below the bark surface for birds like creepers and woodpeckers, but even a dependable food supply will not help if the energy drain caused by cold weather is great enough. This problem is especially acute for small birds, because the proportion of surface area to volume increases as the size of the bird decreases. Small birds have proportionately more surface area from which to lose heat. For example the

deepest body core of a chickadee is less than an inch away from the surface, so even the internal organs can potentially lose heat to the air quite easily. How, then, can chickadees remain active without freezing to death on January mornings when the temperature remains below  $-30^{\circ}\text{C}$ ? The answer, of course, is that feathers provide excellent insulation, especially when the plumage is fluffed to trap pockets of insulating air.

The bark-foraging birds have an additional advantage, since they spend most of the winter in cavities or deep crevices in trees. Typically they remain in these roost holes from before sunset until sunrise. This means that for as much as 15 hours out of a 24-hour winter day, they are insulated not only by feathers, but also by a layer of wood. The wooden wall of the cavity reduces heat loss by reducing radiation and conduction from the bird's body to its surroundings. It also protects the bird from the wind, which would siphon off heat through convection and disrupt the precisely-arranged coat of fluffed feathers, allowing heat to escape from the skin. Thus, in addition to having a dependable source of energy in the form of bark insects, bark-foraging birds also have a dependable method of conserving energy by using roost cavities.

To test the efficiency of roost cavities in buffering a small bird against low temperatures, I monitored the temperature inside the roost cavity of a female Hairy Woodpecker (*Picoides villosus*) during two relatively cold winter nights in February and March, 1977. The roost cavity was located in

Table 1. Bird species that are permanent residents in woods between Rice and Reshanau lakes, Chain of Lakes Regional Park, Anoka County, Minnesota. Primary winter food is indicated for each species. This table does not include winter visitors that do not nest in the woods; many of these are seed-eaters.

<u>Common Name</u>	<u>Scientific Name</u>	<u>Winter Food</u>
Ruffed Grouse	<b>Bonasa umbellus</b>	buds
Great Horned Owl	<b>Bubo virginianus</b>	mammals, birds
Pileated Woodpecker	<b>Dryocopus pileatus</b>	bark insects
Red-bellied Woodpecker	<b>Melanerpes carolinus</b>	bark insects
Hairy Woodpecker	<b>Picoides villosus</b>	bark insects
Downy Woodpecker	<b>Picoides pubescens</b>	bark insects
Blue Jay	<b>Cyanocitta cristata</b>	nuts
Common Crow	<b>Corvus brachyrhynchos</b>	grain, carrion
Black-capped Chickadee	<b>Parus atricapillus</b>	bark insects
White-breasted Nuthatch	<b>Sitta carolinensis</b>	bark insects
Brown Creeper	<b>Certhia familiaris</b>	bark insects
Cardinal	<b>Cardinalis cardinalis</b>	seeds, berries

an American elm (*Ulmus americana*) snag in the woods between Rice and Reshanau lakes in Chain of Lakes Regional Park, Anoka County, Minnesota. It was 4.7 m above the ground on the main trunk, which was 20 cm in diameter at the level of the cavity entrance. The cavity was 20 cm deep. I drilled small holes into the cavity at two levels (4 cm and 10 cm above the bottom of the cavity). I then inserted a thin thermocouple wire (temperature probe) into each of these drill holes so that the tip of the wire did not protrude into the cavity. The lower thermocouple was high enough to be above the body of a bird sitting in the bottom of the cavity. The small drill holes were then sealed with putty. Another thermocouple was attached to the bark surface close to the cavity entrance. Thermocouples can be used with a potentiometer for measuring temperature accurately (Kendeigh, 1952).

I monitored the temperature at the three thermocouples at half-hour intervals from shortly before the woodpecker entered the roost hole until a half hour after it left. The woodpecker seemed mildly disturbed by the presence of a tent about 30 m from its snag, and on both nights it spent sev-

eral minutes peering out of the cavity entrance soon after entering. In both cases, however, it eventually disappeared into the hole and remained until the next morning.

Figure 1 shows the temperatures at the three thermocouples for the night of 20-21 February 1977. After the bird entered the cavity at 1722, the lower part of the cavity (4 cm above the bottom) was consistently warmer than the upper part (10 cm above the bottom), which, in turn, was warmer than the exterior of the trunk. The maximum temperature difference between the lower part of the cavity and the trunk exterior was 6.8°C (12.2°F) at 2030. After the bird left the cavity at 0730 the next morning, the temperature readings for the three thermocouples began to converge.

The pattern for the night of 5-6 March 1977 is similar. While the bird was present, the cavity temperatures were consistently higher than the exterior temperature. The maximum difference was 6.1°C (11.0°F) at 2000, when the outside temperature was -8.4°C. The woodpecker entered the cavity at 1728 and left the next morning at 0643.

During much of the night, the Hairy Woodpecker's surroundings were

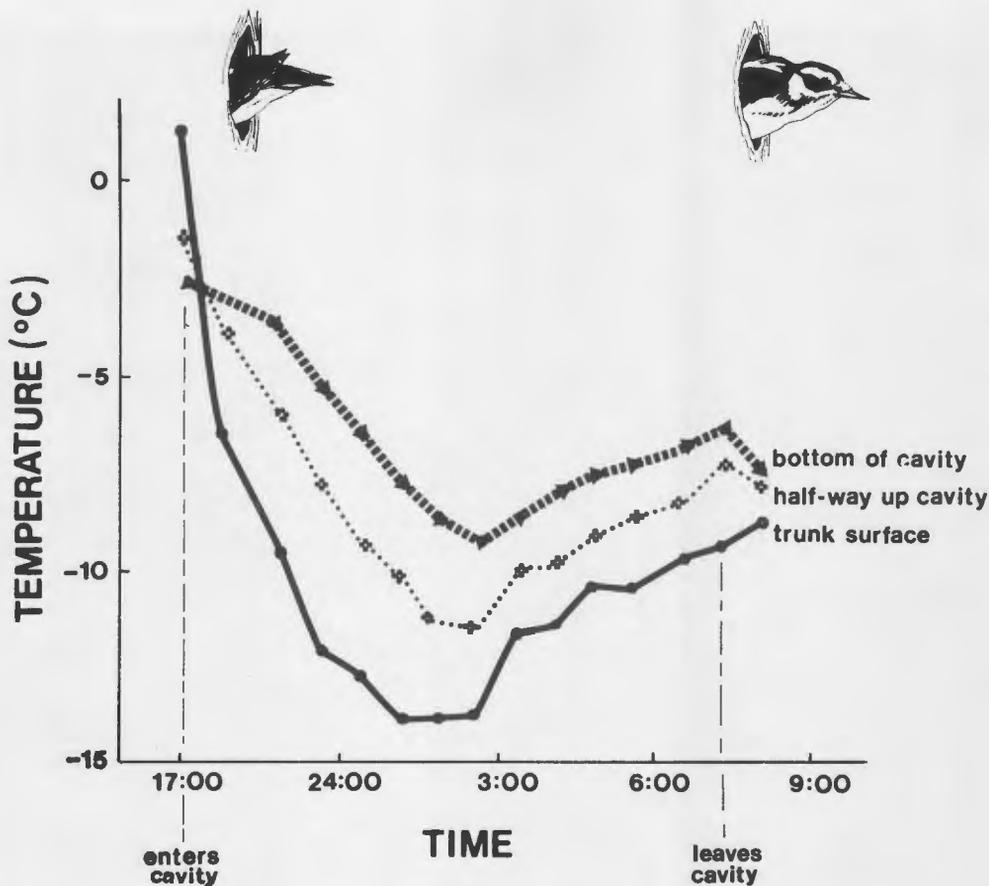


Fig. 1. Change in the temperature of a roost cavity of a Hairy Woodpecker during one winter night.

3-6°C warmer than the trunk surface outside its cavity. Similar differences have been found in comparisons of temperature inside and outside of the roosting cavities of a House Sparrow (*Passer domesticus*) sleeping in a bird box (Kendeigh, 1961) and Monk Parakeets (*Myiopsitta monachus*) roosting in an enclosed nest (Caccamise and Weathers, 1977). In both of these studies, the metabolic rate of the birds had been determined for different temperatures so that energy use could be compared for roost-hole and outside temperatures. In both the House Sparrow and the Monk Parakeet, the energy saved by using a roost cavity is considerable. Moreover, these calcu-

lations only take into account heat loss due to the temperature difference between the roost hole and the outside. Two other major sources of heat loss — radiation of heat to a cold night sky and loss of heat by forced convection from the wind — are not considered. Protection from the wind and from precipitation may actually be more important than the higher temperatures of the roost.

Woodpeckers have a major advantage over other birds that use cavities, because they can build their own cavities in relatively solid wood. The cavity walls are thick and there is a narrow tunnel for an entrance, features that not only reduce heat loss but also

protect the roosting bird from predators. Other cavity-roosting birds often use woodpecker cavities, sometimes after evicting the woodpeckers to obtain them (Short, 1979). More frequently they are forced to spend the night in drafty natural cavities, in hollow trees, or even underneath loose bark.

Although woodpeckers have the advantage of custom-built cavities, they do not benefit from communal roosting. Having several individuals crowded together in one roost cavity would have obvious advantages on cold winter nights and many birds do cluster in this way, but the woodpeckers found in Minnesota roost alone. Unlike most of the other bark-foraging birds, woodpeckers maintain their territories through the winter, and one can often hear woodpeckers drumming to announce their territorial boundaries on even the coldest January mornings (Kilham, 1966). Each pair protects its territory from other members of the same species, and this behavior probably prevents several individuals from clustering in a single roost hole. This does not explain, however, why the male and female, which stay close together throughout the winter and often have adjacent roost holes, do not sleep in the same cavity. The Heinroths (1958) have commented that woodpeckers are not particularly fond of their mates. The behavior of Downy Woodpeckers certainly gives one this impression. Although the pair often forage together, the male frequently dives at the female and supplants her, sometimes taking over her feeding spot (Kilham, 1970). For whatever reason, male woodpeckers frequently assert dominance over their mates, and this relationship may have precluded the evolution of joint use of a single cavity.

Black-capped Chickadees (*Parus atricapillus*) and Carolina Chickadees (*P. carolinensis*) also roost singly in cavities (Odum, 1942; Pitts, 1976), but in many other resident species several

individuals will cluster together in a cavity to sleep. Although White-breasted Nuthatches (*Sitta carolinensis*) often roost alone (Kilham, 1971), as many as 29 individuals have been seen entering a large crack in a trunk to roost (Harvey, in Bent, 1948: 18-19). In Colorado Knorr (1957) saw approximately 150 Pygmy Nuthatches (*Sitta pygmaea*) entering a hollow ponderosa pine stub at sunset. Large numbers of Brown Creepers have also been seen gathering to roost in a single cavity (Bent, 1948: 65-66). In western Washington Ehinger (quoted in Bent, 1948: 175) counted 31 Winter Wrens (*Troglodytes troglodytes*) crowding into a 6 x 6 x 6 inch bird house for the night. Armstrong (1955) describes communal roosting in Winter Wrens in Great Britain; in one case 46 wrens were counted entering a single nest box in the evening. On cold, clear nights in February, as many as 14 Eastern Bluebirds (*Sialia sialis*) packed themselves into a bird house at Bloomington, Indiana (Frazier and Nolan, 1959). The bluebirds slept clustered together in a two-tier cone, with bills pointing downward.

Roosting in cavities may be important in allowing some birds with tropical affinities to live in cold climates. For instance, House Sparrows belong to the largely tropical weaver finch family (Ploceidae) and Kendeigh (1961) suggests that they may have been able to extend their range to the far north because they sleep in enclosures in buildings. A relative of the House Sparrow, the Sociable Weaver (*Philetairus socius*), lives in the Kalahari Desert of southern Africa, where the temperature may be as low as  $-10^{\circ}\text{C}$  on winter nights. More than a hundred pairs of these small weaver finches will build and maintain a huge communal nest, which may be six meters across and may fill the crown of a large acacia tree (White et al., 1975). This structure is used not only for raising young, but also as a place to sleep at all times of the year. The nest has dozens of small chambers,

each with a separate tubular entrance. The entire structure is protected by a thick thatched roof. On cold nights as many as five weavers may crowd into a single chamber. The heavy insulation of the thatching and the crowding of birds into a small proportion of the chambers result in the chamber interiors being 18-23°C warmer than the outside air temperature. Consequently the birds use 40% less energy to maintain their body temperatures (White et al., 1975). The communal nest may allow the Sociable Weaver to be one of the few sedentary species in the Kalahari Desert and, furthermore, may be a key factor in permitting these weavers to nest at any time of the year, even in mid-winter, depending on when rain occurs.

The Monk Parakeets of South America also build elaborate communal nests. The nest is made up of many small chambers with separate entrances, and each chamber is occupied by one pair of parrots (Forshaw, 1973). These structures are used not only for nesting, but also for nighttime roosting. This is probably an important adaptation, since the range of the Monk Parakeet extends into colder areas of Argentina. The communal nest may also be important in the survival of escaped Monk Parakeets that have been living and occasionally breeding in New York and adjacent states. Caccamise and Weathers (1977) show that even a small communal nest can considerably reduce the amount of energy needed to maintain the body temperature of these parrots, and so could permit survival on cold nights.

Roost cavities may be crucial to the survival of many birds during the winter, and bark-foraging birds in Minnesota depend on dead wood as a source of cavities. Dead trees are often removed from woods that are carefully managed for timber production and in woods where firewood is gathered. The loss of dead trees is a triple blow to bark-foraging birds, since they depend on dead trees not only for

winter roost cavities, but also for nest cavities and as an important source of food. In Europe the density of hole-nesting birds is much lower in highly managed forests than in unmanaged forests. Installation of nest boxes in a managed forest can increase the density of hole-nesters dramatically (von Haartman, 1971). In Minnesota mixed flocks of nuthatches, chickadees, creepers, and woodpeckers are often the only pockets of movement and sound in a silent expanse of winter forest. These flocks would become rare or even disappear if the forest were stripped of dead trees. The hollows, cracks, crevices, and woodpecker holes in dead and dying trees are essential both for nesting and for protection on cold winter nights.

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## BREEDING BIOLOGY OF THE WHITE-BREASTED NUTHATCH

Gary Ritchison

### Introduction

The White-breasted Nuthatch (*Sitta carolinensis*) is a common and widespread species throughout North America; however, surprisingly little is known about its breeding biology. There have been several general studies of nuthatch behavior (Tyler 1916, Butts 1931, Bent 1948, Kilham 1968,

1972) but none of these provides much information on such things as nest placement, duration of the incubation period, male and female behavior during the nesting period, or age of the young at the time of fledging. The objective of the present study was to observe breeding pairs of White-breasted Nuthatches and attempt to obtain such information.

## Study Area and Methods

Feeding stations were maintained from 1 October 1973 to 1 April 1974 and from 1 September 1974 to 1 April 1975 to attract White-breasted Nuthatches for trapping and behavioral observations. Birds were provided with a U.S. Fish and Wildlife Service band along with various colored plastic band combinations. The plumage of most individuals was also painted with felt pens to aid in recognition.

Observations were made from 1 October 1973 to 1 April 1975. Most data were collected on an area located one mile northwest of Elysian, Le Sueur County, Minnesota. The study area was covered with woodland, roughly 50% deciduous and 50% coniferous. The most common deciduous species were American elm and silver maple, while the most common coniferous species were Black Hills spruce, Colorado blue spruce, and white pine.

## Results and Discussion

**Habitat and nest placement.** —The White-breasted Nuthatch primarily occupies mature forests and woodlots. Within these areas, nuthatches build their nests in natural cavities or in old woodpecker holes. Rarely do nuthatches excavate their own cavities (Bent 1948, Norris 1958, McEllin 1979). Nest cavities vary in height from about five to 20 meters from the ground (Bent 1948). McEllin (1979) indicated that the average height of seven nuthatch cavities was about nine meters (range: 7.5 - 12.3). I located five nest cavities in the present study and found that they averaged a little more than six meters above the ground (four, four, five, six, and 12 meters, respectively). There are few reports concerning the species of trees utilized by nesting nuthatches. Bent (1948) mentioned only two species: elm and maple. In the present study, two pairs of nuthatches utilized silver maples (*Acer saccharinum*) and one pair each utilized American elm (*Ulmus americana*), hackberry (*Celtis occidentalis*), and black walnut (*Juglans nigra*).

**Nesting period.** —Nesting generally occurs during the months of May and June. In the present study it was difficult to obtain precise dates because of the relative inaccessibility of the nest cavities. The earliest date at which incubation behavior was noted was 4 May. This nest was inaccessible; however, the female remained in the cavity for long periods and was fed by the male, indicating that the female was incubating. Two nests were accessible and both were discovered after all or most of the eggs had been laid. One of these nests was found on 11 May and contained seven eggs. These eggs all hatched on 14 and 15 May and the young fledged on 9 and 10 June. The other accessible nest was discovered on 27 May and contained four eggs. A fifth egg was laid on 28 May. These eggs hatched on 10 and 11 June and the nest was apparently destroyed by an unknown predator on 16 June.

The clutch sizes noted in the present study (five and seven eggs) appear to be normal for White-breasted Nuthatches. Bent (1948) indicated that the usual clutch size was five to nine eggs. The usual clutch size for European nuthatches (*Sitta europea*) is reported to be six to 11 eggs (Lorhl 1958).

**Incubation.** —In the nest where the time between the laying of the last egg and the date(s) of hatching were known, the incubation period was 13 or 14 days. Allen (1929) reported an incubation period of about 12 days. In the similarly sized European nuthatch, Lohrl (1958) reported an incubation period of 15 to 18.5 days.

The female alone incubates, and the male enters the nest only to feed her. Butts (1931) also noted that males did not assist in incubation. Incubation behavior, as in many passerines, is marked by attentive periods (when the female sits on the eggs) and inattentive periods (when she forages, either alone or with the male). In approximately 21 hours of observation the mean attentive and inattentive periods of three females were respectively: 31.1 min. (range: 8 to 67) and 4.3 min.

(range: 1 to 12). The mates of these females fed them at the mean rate of 6.9 times per attentive hour.

An attentive period may end either by the female departing alone or by the arrival of the male. On several occasions males arrived and perched on a nearby branch and uttered a "quank" call. The female would then leave the nest hole and either fly off with the male or be fed by the male and immediately return to the nest. Males usually flew directly to the nest cavities, fed the females without uttering any vocalizations, and flew off.

**Nestling stage.**—In the first few days after hatching of the young, females continued to alternate attentive and inattentive periods; females usually, but not always, brought food back to the young when they returned from an inattentive period. Once the young have hatched, the behavior of the males changed markedly in that they brought food far more frequently. In the present study, the feeding rates of males in the first four days after hatching went from the 6.9 trips/hr. mentioned previously to 12.7 trips/hr.

For the first few days after hatching, brooding attentiveness was the same as incubation attentiveness. In the two nests observed in which hatching dates were definitely known, little change was noted in the first four days after hatching. After that, however, brooding declined rapidly and, on the one nest that escaped predation, was discontinued on the 14th day after hatching. Lohrl (1958) reported that in the European nuthatch brooding persisted for 15 to 20 days.

The amount of food brought to the young increased as the nestling period progressed. Initially the males do most of the feeding; however, as the time of fledging approached the females brought a greater share of the food to the young. For example, in the last seven days prior to fledging one female made 14.3 trips/hr. whereas the male made only 7.7 trips/hr.

When adults arrived at the nest hole with food they always uttered

soft "tchup" calls, and the young responded by giving begging calls. Apparently the "tchup" calls signal the young that they are about to be fed and the begging calls of the young inform the adult that the young are ready to be fed. Such communication would seem to permit a more rapid and efficient exchange and give the adults more time for foraging. On several occasions an adult female quieted the young by giving "tchup" calls. Generally, after the young had been fed and the female had left the nest hole, the young continued to utter begging calls. However, when a female gave several "tchup" calls the young became quiet. Such behavior may play a role in preventing predators from locating the nest cavity.

In the single nest in which dates could be accurately determined, fledging of the young occurred 26 days after hatching. I could find no other reports concerning the length of the nestling period in White-breasted Nuthatches; however, Bent (1948) reported that Red-breasted Nuthatches (*Sitta canadensis*) fledged 18 to 21 days after hatching and Lohrl (1958) indicated that European nuthatches left the nest after 24 days. These are rather long nestling periods; however, it has been found that hole-nesters generally have longer nestling periods than open-nesters. For example, Nice (1957) found that the average nestling period for 11 species of open-nesters was 11.0 days, while for 10 hole-nesters it lasted 18.8 days. Apparently, natural selection has shortened the nestling period for species exposed to more environmental hazards (e.g., inclement weather and predators).

**Dispersal of the young.**—For several weeks after fledging, the family group essentially stays within the boundaries of the nesting territory. For the first few days the young do not move about much, spending most of their time sitting quietly and giving occasional begging calls. The volume and frequency of these calls increases as an adult approaches. In the family

groups observed in the present study, the adult females did the majority of the feeding. On only three occasions was a male observed feeding the fledged young. The male does remain in the territory, however, and continues to defend the territory (males continued to sing well into July).

In time the fledglings increasingly forage on their own, with a concomitant decrease in begging. Within a week after fledging, the young appeared to fly as well as adults. In the present study, young were last seen in their parent's territory 23 days after fledging. Butts (1931) reported that the young left the territory in July but did not indicate the length of time after fledging.

### Summary

The breeding of White-breasted Nuthatches was studied in the spring and summer of 1974 and 1975 in an area one mile northwest of Elysian, Le Sueur County, Minnesota.

The White-breasted Nuthatch primarily occupies mature forests and woodlots. Within these areas nuthatches build their nests in natural cavities or old woodpecker holes, generally located five to 20 meters from the ground.

Nesting occurs during May and June. Clutch sizes range from five to nine eggs. The female alone incubates and is fed largely by the male. Hatching occurs about the 13th day of incubation. Both parents feed the young, with the male feeding more at the beginning of the nestling period and the female feeding more toward the end of the nestling period.

In one nest, fledging occurred 26 days after hatching. After fledging, the young are fed with decreasing frequency by the adult female for about three weeks. After this they are no longer found in the nesting territory.

### Acknowledgements

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# Spring\* Season

(March 1 - May 31, 1981)

Dick Ruhme, Don Bolduc,  
and Oscar Johnson

During this spring, most of Minnesota enjoyed one of the mildest March's in years with temperature average nearly 10 degrees above normal with virtually no snow cover except in the northeastern part of the state. April weather was about average in both temperature and precipitation, as was May. However, the lack of snow melt made things seem much drier and in fact lake levels were down and many favorite shorebird haunts totally dry.

If you had expected the abnormally gentle winter to bring migrants back early, you were absolutely right. The waterfowl migration was the earliest on record, so early that most arrivals were noted in the preceding Winter Report. As stated there, on a trip to southeastern Minnesota Feb. 28-March 1, KE and RJ recorded virtually every regular species of duck! Herons, pelicans and the like were not far behind with many early dates, but the warbler wave was about on time, possibly having been delayed by inclement weather south of the state.

For the record, 79 seasonal reports were submitted, providing good coverage of the state. 105 species were recorded, among them 10 casuals and 7 accidentals. Highlights from the northeast included Duluth's Mute Swan, Gyrfalcon, Whimbrel, Red Knot Parasitic Jaeger and Little Gull plus a Lazuli Bunting in Cook County. Around the Twin Cities, an errant Western Tanager obliged many ob-

servers, and several unusual species were seen in the southeast.

Also worthy of special mention was the discovery of three active Bald Eagle nests along the Mississippi River in Houston County. Two nests with young were observed by FL on May 21. For obvious reasons, precise locations will not be revealed.

## Common Loon

Early south 3-30 Hennepin ES, 4-1 Anoka KL and Stearns SE; early north 4-3 Crow Wing JB, 4-4 Pine TC, 4-5 St. Louis G. Floyd and Hubbard DJ.

## Red-throated Loon

4-29 Duluth KE, 5-24 Lake J. Church and 5-25 Duluth KE only reports.

## Red-necked Grebe

Early south 5-1 Nicollet JCF, 5-12 Hennepin SC, VL, 5-14 Pope HK; early north 4-11 St. Louis KE and Otter Tail GMO, 4-13 Lake of the Woods TA, 4-15 Beltrami RJ.

## Horned Grebe

Early south 3-29 Washington DR, 4-7 Hennepin VL, 4-10 Houston JP/AM; early north 4-11 St. Louis TL, 4-12 Cook KE, 4-14 Morrison RJ; peak 4-24 Pine DB, RJ (500).

## Eared Grebe

Early south 4-18 Murray BL, 4-24 Nicollet JCF, 4-25 Lac Qui Parle KE, RH, Stevens OJ, Yellow Medicine HK; peak 5-15 Nicollet JCF (200).

## Western Grebe

Early south 4-10 Nicollet JCF, 4-18

Rice KJ, 4-26 Dodge JSD and Steele JEB; early north 4-20 Otter Tail SM, 4-25 Wilkin JP/AM, 5-2 Beltrami JP.

#### **Pied-billed Grebe**

Early south 3-2 Nicollet JCF (wintered), 3-21 Olmsted EJB, 3-22 Anoka KL and Blue Earth MF; early north 3-25 Becker TNWR, 3-27 Beltrami JP, 3-28 Otter Tail SM and St. Louis TW.

#### **White Pelican**

Early south 4-12 Cottonwood LAF and Murray HK, 4-24 Lac Qui Parle RH, 4-26 Big Stone FL and Wilkin FKS; early north 4-5 Lake of the Woods TA, 4-9 Otter Tail SM, 4-11 Marshall FDS.

#### **Double-crested Cormorant**

Early south 3-31 Dakota TC, Sibley RJ, 4-1 Traverse SM, 4-2 Blue Earth MF, Houston FL and Lyon HK; early north 4-6 Pennington KSS, 4-10 St. Louis TL, 4-11 Otter Tail GMO and St. Louis KE.

#### **Great Blue Heron**

Early south 3-14 Anoka BH, 3-20 Stearns NH, 3-21 Dakota MW, Houston JP/AM and Olmsted JEB; early north 3-22 Itasca TL, 3-25 Hubbard HJF, 3-28 Duluth Dick Green, Otter Tail GMO and Todd RJ.

#### **Northern Green Heron**

Early south 4-17 Dakota MW, 4-24 Hennepin ES and Washington DS, 4-27 Anoka SC, GP; early north 4-16 Otter Tail GMO, 4-17 Aitkin WN, 5-2 Isanti RJ.

#### **LITTLE BLUE HERON**

4-25 Big Stone many observers, 5-13 through 19 Dakota KG, m. obs., 5-23 Pope (Lake Johanna) NH.

#### **CATTLE EGRET**

4-11 and 26 (4) Aitkin fide WN, 4-19 Nicollet JD.

#### **Great Egret**

Early south 3-29 Washington BL, 3-31 McLeod RJ, 4-2 Anoka SC, BH; early north 4-10-11 Duluth KE (rare here), Otter Tail GMO, 5-3 Marshall AWR, also 5-6 Beltrami AS and 5-20

Roseau RJ.

#### **SNOWY EGRET**

4-10 Anoka (Carlos Avery) KL.

#### **LOUISIANA HERON**

5-4 to 8 (Sherburne NWR) R. Joarnt.

#### **Black-crowned Night Heron**

Early south 3-8 Dakota SC (wintered?), 3-30 Hennepin SC, ES, 3-31 McLeod RJ; early north 4-16 Otter Tail GMO, 4-19 St. Louis Dick Green, 4-23 Marshall FDS.

#### **Yellow-crowned Night Heron**

4-19 Otter Tail GMO, 4-27 Anoka GP, 5-14 Olmsted m. obs., 4-27 Aitkin M. Kern.

#### **Least Bittern**

5-1 Otter Tail GMO, 5-10 Washington DS, 4-16 Dakota KG.

#### **American Bittern**

Early south 4-17 Martin BL, 4-21 Lyon HK, 4-24 Stearns NH; early north 4-17 Duluth JG, 4-29 Aitkin DB and Otter Tail GMO, 5-1 Lake of the Woods TA.

#### **WHITE-FACED IBIS**

5-3 Cottonwood LAF, m. obs., 5-30 Wilkin JP/AM.

#### **MUTE SWAN**

Several reports from Duluth: 3-15 (7) fide KE, 4-18 JG and 5-11 KE; also 3-20 through 28 Itasca TL.

#### **Whistling Swan**

Early south 3-13 Winona JP/AM, 3-25 Houston FL (75) and Sherburne EH; early north 3-26 Clay SM and Otter Tail GMO; peak 4-11 Duluth KE (1500); late north 5-21 Lake of the Woods RJ, 5-31 Wilkin JP/AM, SM.

#### **Canada Goose**

Permanent resident; reported from 34 counties.

#### **White-fronted Goose**

Early south 3-28 Cottonwood JEB, JSD, 4-4 Dakota JD, Blue Earth MF; early north 3-21 Clay LCF, 3-26 Hubbard DJ, 4-28 Otter Tail GMO (19); peak 4-24 Nicollet JCF.

**Snow Goose**

3-1 Hennepin KE, 3-8 Dakota BH, TW, 3-10 Anoka KL, Ramsey RH (wintered); early north 3-15 Otter Tail SM, 4-2 Wilkin FKS, 4-24 Marshall KSS; peak 4-1 Otter Tail GMO (200).

**Mallard**

Permanent resident south; early north 3-8 Marshall, 3-18 Becker TNWR, 3-26 Wilkin FKS, reported from 29 other counties.

**Black Duck**

Many overwintering reports south; early north 3-6 Otter Tail GMO, 3-28 Itasca TL.

**Gadwall**

Early south 3-12 Blue Earth JCF, 3-15 Dakota KG, 3-27 Cottonwood LAF; early north 3-29 Otter Tail SM, 4-10 Crow Wing TS, 4-12 Duluth JG.

**Pintail**

Early south 3-2 JEB, 3-4 Waseca JCF, 3-7 Scott RA; early north 3-14 Otter Tail GMO, 3-24 Marshall FDS, 3-27 Beltrami JP.

**Green-winged Teal**

Early south 3-7 Scott RA, 3-15 Anoka KL, Dakota KG, Mower RRK, 3-17 Wabasha WDM; early north 3-16 Otter Tail GMO, 3-28 Morrison DCF, 3-30 Lake SW/MS.

**Blue-winged Teal**

Early south 3-6 Dakota TC, Blue Earth JCF, 3-21 Houston FL; early north 3-24 Beltrami SY, 3-28 Aitkin WN, Morrison DCF and Otter Tail SM, 4-5 St. Louis KE.

**CINNAMON TEAL**

4-25 to 5-20 Douglas SM, many observers.

**American Wigeon**

Early south 3-12 Blue Earth JCF, 3-15 Dakota KG, Mower RRK and Olmsted JEB, JSD, 3-17 Wabasha WDM; early north 3-8 Otter Tail SM, 3-26 Beltrami JP, 3-27 Becker TNWR.

**Northern Shoveler**

Early south 3-1 Scott KE, RJ, 3-12 Blue Earth JCF, 3-15 Dakota KG and Olmsted JSD; early north 3-26 Clay



SM, 3-28 Otter Tail GMO (750), 4-8 Wilkin FKS.

### **Wood Duck**

Early south 3-2 Ramsey BH, 3-9 Stearns NH, 3-13 Nicollet JCF; early north 3-18 Beltrami AS, 3-23 Becker TNWR, 3-26 Otter Tail GMO.

### **Redhead**

3-1 Dakota SC, 3-4 Waseca JCF, 3-5 Blue Earth JCF; early north 3-15 Otter Tail SM, 3-28 Itasca TL and Lake of the Woods TA, 4-1 Beltrami JP; peak 3-15 Cottonwood LAF (200+).

### **Ring-necked Duck**

Early south 3-6 Blue Earth JCF, Wabasha WDM, 3-11 Houston FL, 3-13 Ramsey BL; early north 3-22 Itasca TL, 3-27 Beltrami JP, 3-28 Becker DJ, Morrison DCF, Otter Tail SM, GMO, GW.

### **Canvasback**

3-1 Dakota RA, SC, KE, RJ, MW, 3-8 Houston FL, 3-9 Blue Earth JCF; early north 3-28 Otter Tail GMO, 3-29 St. Louis LW, 4-8 Wilkin FKS.

### **Greater Scaup**

Early south 3-19 Stearns MC, 3-21 Freeborn RJ, 3-23 Washington DR; early north 3-28 Beltrami JP, AS, 3-29 St. Louis LW, 4-3 Lake of the Woods TA.

### **Lesser Scaup**

Early south 3-1 Dakota SC, KE, RJ, 3-2 Olmsted JEB, JSD, 3-7 Wabasha WDM; early north 3-18 Otter Tail GMO and Becker TNWR, 3-28 St. Louis TW, 4-2 Cook KMH.

### **Common Goldeneye**

Late south 4-8 Stearns NH, 4-9 Houston JP/AM, 4-28 Washington DS, 5-16 Hennepin OJ.

### **BARROW'S GOLDENEYE**

3-4 through 7 Dakota (Black Dog) RA, MW.

### **Bufflehead**

Early south 3-1 Houston JP/AM, 3-10 Blue Earth JCF; early north 3-23 Becker TNWR, 3-25 Marshall FDS;

late south 4-30 Ramsey BDC, 5-6 Wabasha WDM.

### **Oldsquaw**

5-26 Cook KMH, only report.

### **White-winged Scoter**

4-11 Mille Lacs SE, 4-19 Cook KMH; all other reports St. Louis 5-2, 5-11 JG, 5-18 SM, 5-25 LW.

### **Surf Scoter**

5-10 St. Louis JG, 5-25 St. Louis LW, only reports.

### **Black Scoter**

5-10 St. Louis JG, only report.

### **Ruddy Duck**

Early south 3-14 Blue Earth JCF, 3-21 Freeborn RJ, Le Sueur EK and Washington DS; early north St. Louis LW, 4-13 Pennington KSS, 3-15 Otter Tail GMO; peak 4-20 Grant SM (800).

### **Hooded Merganser**

Early south 3-8 Houston FL, 3-15 Anoka KL, 3-17 Wabasha WDM; early north 3-21 Beltrami JP, 3-24 Itasca TL, 3-28 Aitkin KE, Becker DJ and Duluth Dick Green.

### **Common Merganser**

Late south 4-12 Olmsted JF, 4-20 Anoka, 4-24 Nicollet JCF, KL, 5-5 Washington DS.

### **Red-breasted Merganser**

Early south 3-10 Dakota GS, 3-15 Goodhue KE; early north (excluding Lake Superior) 3-28 Morrison DCF, 3-29 Otter Tail SM; peak on Lake Superior 4-28 St. Louis JG (900); late south 5-1 Nicollet JCF, 5-13 Wabasha WDM.

### **Turkey Vulture**

Early south 3-27 Fillmore GBE, 3-28 Anoka KL, Benton RJ, Wabasha JSD, Wright DCF; early north 4-5 St. Louis KE, 4-6 Lake of the Woods TA, 4-8 Becker TNWR.

### **Goshawk**

3-7 Houston JP/AM, 3-14 Washington DS, 3-28 Washington WHL, only reports south.

**Sharp-shinned Hawk**

Early north 3-22 Hubbard DJ, 3-28 Aitkin KE, 3-29 Otter Tail GMO, 4-2 Pennington KSS.

**Cooper's Hawk**

Early north 3-7 Hubbard DJ, 4-1 Traverse SM, 4-7 Pennington KSS and St. Louis TL.

**Red-tailed Hawk**

Early north 3-4 Aitkin WN, 3-6 Otter Tail GMO, 3-7 Beltrami AS. Reported from 36 counties.

**Red-shouldered Hawk**

Early south 3-11 Anoka BH (3) KL, 3-22 Houston JP/AM, 4-11 Winona JEB, JSD; early north 3-18 Otter Tail GMO, 3-25 Becker TNWR, 3-28 Todd RJ.

**Broad-winged Hawk**

Early south 3-9 Blue Earth MF, 3-10 Washington DR, 3-28 Faribault GS; early north 3-25 Becker TNWR, 4-12 Otter Tail GMO, 4-17 Crow Wing JB, Itasca TL; peak 4-26 Houston FL (300).

**Swainson's Hawk**

4-12 Mower RRK, 4-15 Lyon HK, 4-18 Olmsted JEB; early north 4-14 Otter Tail GMO, 5-12 Traverse SM, 5-23 Clay SM.

**Rough-legged Hawk**

Late south 4-24 Chisago RJ, 4-27 Washington DS, 4-28 Scott ES; late north 5-8 St. Louis KE, 5-12 Aitkin WN, 5-25 Marshall KSS.

**Golden Eagle**

3-14 Olmsted JEB, 3-15 Carver ES, 4-1 Otter Tail GMO, 4-7 Lake of the Woods TA, 4-27 Hennepin VL.

**Bald Eagle**

Early north 3-4 Itasca JC and Beltrami AS, 3-10 Lake of the Woods TA, St. Louis fide KE; south 3 nests, 2 with young 5-21 Houston FL.

**Marsh Hawk**

Early south 3-1 Sherburne DB, 3-12 Lyon HK, 3-13 Wabasha DB, OJ, WDM; early north 3-6 Otter Tail SM, 3-8 Aitkin WN, 3-15 Itasca SY.



**Osprey**

Early south 3-18 Houston EMF, 4-7 Mower RRK, 4-10 Anoka KL; early north 4-12 St. Louis TL, 4-13 Itasca MS, 4-15 Becker TNWR.

**GYRFALCON**

One adult grey phase male reported in Duluth 3-3 KE and 3-7 AS.

**Peregrine Falcon**

3-30 Hennepin RJ, 4-11 Otter Tail GMO, 5-12 Itasca TL, only reports.

**Merlin**

Early south 3-21 Houston FL, 3-28 Anoka KL, 4-2 Lyon HK and Stearns NH; early north 3-26 Aitkin JB, 4-8 Beltrami AS, 4-14 Otter Tail GMO.

**American Kestrel**

Early north 3-1 Otter Tail GMO and Pennington KSS (wintered), 3-9 Marshall FDS, 3-12 Crow Wing JB, 3-14 Becker TNWR.

**Spruce Grouse**

4-17 Lake of the Woods RJ, 5-7 Cook KMH, only reports.

**Ruffed Grouse**

Permanent resident; reported from 30 counties.

**Greater Prairie Chicken**

Permanent resident; reported from Cass, Clay, Hubbard, Norman, Otter Tail, Pennington and Wilkin counties.

**Sharp-tailed Grouse**

Permanent resident; reported from Aitkin, Beltrami, Itasca, Lake of the Woods, Marshall and St. Louis counties.

**Bobwhite**

Reported from Houston 4-17 to 19, 5-25 and 5-29 JP/AM, 5-19 Rock (Blue Mounds) SM.

**Ring-necked Pheasant**

Permanent resident; reported from 27 counties.

**Gray Partridge**

Permanent resident; reported from 33 counties.

**Turkey**

4-13 Houston EMF, only report.

**Sandhill Crane**

Early south 3-22 Le Sueur HC, Anoka BH, 3-28 Anoka KL, GP, 3-30 Sherburne EH; early north 3-19 Lake of the Woods TA (?) 3-27 Marshall KSS, 4-1 Otter Tail SM and Wilkin FKS; peak 4-2 Otter Tail GMO (141).

**Virginia Rail**

Early south 4-19 Hennepin (TSR) DB, 4-26 Mower RRK, 5-1 Nicollet JCF; early north 4-21 Otter Tail GMO, 5-13 St. Louis KE (rare here), 5-21 Lake of the Woods KSS.

**Sora**

Early south 4-16 Houston JP/AM, 4-17 Martin BL, 4-22 Hennepin SC; early north 5-2 Otter Tail GMO, 5-4 St. Louis JG, 5-9 Aitkin JB, TS.

**Yellow Rail**

Reported 5-16 Anoka KL, 5-23 Wilkin KE, SM and 5-30 Aitkin KE.

**American Coot**

Overwintered Dakota, Scott, Waseca, other early south 3-23 Wabasha WDM, 3-26 Mower RRK and Washington WHL; early north 3-8 Otter Tail SM, 3-25 Beltrami JP, 4-10 Crow Wing TS; peak 4-14 Becker TNWR (1000s).

**Common Gallinule**

5-2 Hennepin RA, 5-15 SM, 5-19 Mower RRK, 5-26 Anoka GP.

**Semipalmated Plover**

Early south 4-5 Lac Qui Parle OJ, 5-2 Carver SC, 5-8 Nicollet JCF, Olmsted JF, Ramsey BDC; early north 4-29 Grant SM, 5-3 Crow Wing JB, 5-14 Pennington KSS.

**Piping Plover**

South 4-17 Nobles BL, 5-9 Pipestone RJ, 5-27 Hennepin SE; north all from Duluth 5-6 JG, TL, 5-27 KE, 5-31 SC.

**Killdeer**

Early south 3-1 Cottonwood LAF, 3-6 Houston FL, 3-14 Dakota JD and Stearns NH; early north 3-14 Otter

Tail GMO, 3-23 Hubbard DJ, 3-24 Clay LCF, Crow Wing JB and Pennington KSS.

#### **American Golden Plover**

Early south 4-25 Lac Qui Parle OJ and Yellow Medicine HK, 4-29 Blue Earth JCF and Mower RRK; early north 4-26 Grant SM, 4-28 Otter Tail GMO; peak 4-26 Yellow Medicine FL (150).

#### **Black-bellied Plover**

Early south 4-25 Yellow Medicine HK, 4-26 Big Stone KE, 5-21 Houston FL; early north 5-18 Wilkin RJ, 5-19 Marshall RJ, FDS, 5-23 Norman and Pennington SM.

#### **Ruddy Turnstone**

Early south 5-13 Hennepin DB, SC, 5-14 Stearns NH; early north 5-18 Wilkin RJ, 5-20 Marshall RJ; late south 5-26 Stearns NH; peak 5-25 Duluth JG (75).

#### **American Woodcock**

Early south 3-22 Le Sueur HC, 3-24 Fillmore GBE, 3-25 Hennepin RH; early north 3-24 Marshall FDS, 3-25 Becker TNWR, 3-27 Lake of the Woods TA and St. Louis KE.

#### **Common Snipe**

Early south 3-3 Mower RRK, 3-26 Olmsted JEB, JSD, 3-27 Mower MW; early north 3-28 Otter Tail GMO, 3-29 Grant SM and St. Louis TH; peak 4-4 Isanti RJ (25).

#### **Whimbrel**

5-23 Duluth RR (2), only report.

#### **Upland Sandpiper**

Early south 4-2 Anoka BH, 4-25 Chicago, DB, BL, RJ; early north 4-25 Wilkin JP/AM, 5-1 Cay TL, 5-2 Grant GW.

#### **Spotted Sandpiper**

Early south 4-17 Houston JP/AM, 4-24 Nicollet JCF, 4-25 Big Stone, FL, RR and Stearns NH; early north 4-20 St. Louis TH, 4-26 Wilkin FKS, 4-28 Lake SW/MS.

#### **Solitary Sandpiper**

Early south 4-25 Mower RRK, Dakota ES; early north 4-26 Lake of the Woods TA, 3-27 Douglas SM; late south 5-8 Nicollet JCF, 5-9 Dakota TC; ate north 5-18 Grant RJ, 5-23 Otter Tail KE.

#### **Greater Yellowlegs**

Early south 3-28 Anoka KL, 3-29 Washington BL; early north 3-28 Aitkin WN and Morrison RJ; late south 4-25 Stevens OJ and Swift KG; late north 4-30 Hubbard JC, 5-19 Polk RJ.

#### **Lesser Yellowlegs**

Early south 3-28 Anoka KL, Dakota KG and Goodhue JD; early north 3-28 Otter Tail GMO, 4-7 St. Louis KE; late south 5-3 Hennepin DB, 5-8 Ramsey BDC; late north 5-3 Clay LCF and Crow Wing JB (24), 5-25 Kanabec RJ.

#### **Willet**

Early south 4-15 Hennepin VL, 4-17 Nobles BL; early north 4-29 Grant SM, 5-7 Pennington KSS; late south 5-15 Stearns NH, 5-20 Rock SM; late north 5-21 Lake of the Woods RJ, 5-30 Wilkin GMO; peak 5-14 Duluth (12) P. B. Hofslund.

#### **Red Knot**

5-19 FDS, all others from Duluth: 5-25 JG, 5-29 RR, 5-30 ES.

#### **Pectoral Sandpiper**

Early south 3-29 Cottonwood LAF, 4-3 Nicollet JCF, 4-4 Dakota MW and Houston JP/AM; early north 3-28 Otter Tail GMO, 4-4 Marshall KSS, 4-15 Pennington RJ; peak 4-21 Washington WHL (20).

#### **White-rumped Sandpiper**

Early south 5-5 Hennepin RH, 5-7 Wright ES, 5-9 Lincoln RJ, 5-10 Washington DR; early north 5-17 Clay KE, 5-20 Lake of the Woods RJ; late south 5-30 Hennepin OJ, Yellow Medicine JP/AM; late north 5-31 Wilkin JP/AM.

#### **Baird's Sandpiper**

Early south 4-24 Lac Qui Parle RH, 4-28 Olmsted JEB; early north Marshall 4-4 KSS, 5-10 FDS; late south

5-26 Stearns NMH, 5-31 Wright DCF; late north 5-26 Otter Tail GMO, 5-31 St. Louis SC.

#### **Least Sandpiper**

Early south 4-24 Lac Qui Parle RH, 4-25 Lyon HK, 4-25 Lac Qui Parle KE, OJ; early north 4-30 Otter Tail SM, 5-3 GM, 5-2 Beltrami JP; late south 5-26 Stearns NMH, 5-27 Cottonwood LAF.

#### **Dunlin**

Early south 4-25 Lac Qui Parle OJ, HK, FL, 4-30 Mower RRR; early north 4-29 Grant SM, 5-2 Otter Tail GMO; late south 5-30 Lac Qui Parle OJ, Ramsey JW, 5-31 Hennepin ES; late north 5-25 St. Louis (75) JG, 5-31 St. Louis SC, Wilkin SM.

#### **Semipalmated Sandpiper**

Early south 4-17 Nobles BL, 4-25 Big Stone FL, 4-30 Olmsted JEB; early north 4-20 Otter Tail SM, 5-2 GMO, 5-3 Marshall FDS; late south 5-30 Olmsted RJ, Lac Qui Parle OJ, Hennepin VL; late north 5-31 St. Louis SC, Cook KM.

#### **Western Sandpiper**

Early south 4-25 Lac Qui Parle RH, Lyon HK, 4-28 Anoka KL, 5-10 Wabasha KE, 5-12 Olmsted JEB; late south 5-26 Stearns NMH, 5-29 Hennepin SC; only north report 5-17 Marshall KSS; also reported from Hennepin, Houston and Stearns counties.

#### **Sanderling**

Early south 4-24 Lac Qui Parle RH, 4-25 OJ; early north 5-6 St. Louis TL, 5-17 OJ, Marshall KSS; late south 5-24 Cottonwood JEB, Hennepin SC, 5-25 Dakota KG, Washington DR; late north 5-30 St. Louis JW, 5-31 Cook KM, Wilkin SM.

#### **Short-billed Dowitcher**

Early south 4-11 Stearns NMH, 4-23 Washington WHL, 5-3 Rice KJ; early north 5-3 Clay LCF, 5-8 Lake SW/MS, 5-9 St. Louis KE; late south 5-24 Cottonwood JEB, 5-25 Anoka KL; late north 5-18 Aitkin WN, 5-20 Roseau RJ.

#### **Long-billed Dowitcher**

Early south 4-15 Stearns NMH, 4-26 Lac Qui Parle KE, 5-2 Sherburne RJ; early north 4-29 Grant SM, 5-2 Otter Tail GMO; late south 5-16 Anoka KL, 5-20 Dakota JD; late north 5-17 Marshall KSS, 5-29 St. Louis RR.

#### **Stilt Sandpiper**

Only reports: 5-3 Marshall KE, 5-5 Pennington KSS, 5-20 RJ, 5-9 Pipestone RJ, 5-15 Stearns NMH, 5-20 Anoka KL, 5-23 Norman SM, Cottonwood 5-24 JEB, 5-27 LAF.

#### **Buff-breasted Sandpiper**

5-2 Wilkin GMO, 5-18 Wilkin RJ, only reports.

#### **Marbled Godwit**

Early south 4-12 Traverse SM, 4-24 Chippewa RH, 4-25 Lac Qui Parle, Stevens OJ, Big Stone HK, 4-26 Big Stone FL; early north 4-12 Otter Tail GMO, 4-15 Mahnomen RJ, 4-17 Pennington KSS, 4-25 Wilkin JP/AM, 4-26 Marshall FDS; other reports from Nicollet, Grant Beltrami, St. Louis, Kittson, Clay, Norman and Roseau counties.

#### **Hudsonian Godwit**

Early south 4-15 Stearns, 4-17 Nobles BL, 5-4 Dakota KG; early north 5-5 Pennington KSS; late south 5-15 Stearns NMH, Wabasha WDM, 5-16 Wabasha JSD, Hennepin OJ; late north 5-19 Marshall FDS, 5-20 Lake of the Woods RJ, 5-23 KE, SM; also reported from Blue Earth, Clay, Lincoln and Swift counties.

#### **American Avocet**

All reports: 4-17 Rock (16) BL, 4-29 Otter Tail SM, GMO, 5-3 Marshall FDS, 5-19 KSS, FDS, 5-31 FDS, 5-4 Pennington KSS, 5-9 Olmsted JEB, JSD, 5-14 Stearns NMH, 5-16 Carver RJ, 5-17 Clay KE, 5-31 KE, 5-20 Cottonwood LAF, 5-31 Wilkin SM, JP/AM.

#### **Wilson's Phalarope**

Early south 4-25 Yellow Medicine HK, 4-26 FL, 4-30 Rice RJ, 5-1 Stearns NMH; early north 4-30 Otter Tail SM, 5-2 GMO, Marshall JP.

### **Northern Phalarope**

Early south 5-14 Stearns NMH, Yellow Medicine HK, 5-15 Nicollet JCF; early north 5-10 Pennington KSS, 5-17 Clay KE, 5-18 Wilkin RJ; late south 5-24 Cottonwood JEB, Hennepin OJ, 5-27 Cottonwood LAF, 5-30 Yellow Medicine JP/AM; late north 5-23 Pennington SM, 5-31 Wilkin JP/AM.

### **PARASITIC JAEGER**

5-23 Duluth, D. Hojnacki fide KE.

### **Glaucous Gull**

3-17 Dakota SC, 3-22,25 St. Louis D. Green fide JG, KE, 3-30 Wabasha WDM, 4-2 Lake TS, 4-4 St. Louis TL; all reports.

### **Herring Gull**

Reported from 14 south counties and 12 north counties.

### **Thayer's Gull**

3-15 Blue Earth RJ, only report.

### **Ring-billed Gull**

Reported from 33 counties, early south 3-9 Blue Earth JCF, 3-14 Dakota KE, Washington DR, Hennepin ES; early north 3-20 Otter Tail GMO, 3-23 Clay SM, 3-24 Itasca TL, Beltrami AS.

### **Bonaparte's Gull**

Early south 3-31 Sibley RJ, 4-4 Hennepin OJ, 4-11 Sherburne EH, Stearns NMH; early north 3-27 Grant FKS, 4-4 Beltrami AS, SY, 4-23 Otter Tail GMO; late south 5-30 Yellow Medicine JP/AM; late north 5-27 St. Louis JG, 5-30 JW, ES.

### **Franklin's Gull**

Early south 3-14 Cottonwood LAF, 3-28 Le Sueur EK, 4-2 Blue Earth JCF, 4-5 Pipestone HK; early north 3-28 Otter Tail SM, 4-1 GMO, 4-2 Pennington KSS, 4-13 Marshall FDS.

### **LITTLE GULL**

5-9 St. Louis KE (1a), 5-23 RR, Bill Pieper.

### **Forster's Tern**

Early south 4-9 Hennepin SC, 4-10 Nicollet JCF, 4-11 Ramsey FKB, 4-14 Hennepin VL, GP; early north 4-21 Otter Tail GMO, 4-26 SM, 5-2 St. Louis

KE, Grant GW, 5-3 Marshall FDS.

### **Common Tern**

Early south 4-18 Washington DR, 4-21 Ramsey RH, Hennepin VL, 4-30 Stearns NMH; early north 5-1 Lake of the Woods TA, 5-4 St. Louis KE, 5-9 Otter Tail OJ, St. Louis JG.

### **Caspian Tern**

Early south 4-30 Stearns NMH, 5-10 Washington DR, 5-12 Daktoa DB, KG; early north 5-2 St. Louis JG, 5-9 KE, 5-10 Beltrami AS, 5-12 St. Louis LW, Beltrami JP.

### **Black Tern**

Early south 4-29 Hennepin SC, 5-2 OJ, 5-4 Stearns NMH, 5-5 Hennepin VL, GP; early north 5-5 Lake of the Woods TA, 5-7 Pennington KSS, 5-10 Otter Tail SM, 5-13 Beltrami JP.

### **Rock Dove**

Permanent resident reported from 29 counties.

### **Mourning Dove**

Early north 3-5 Clay LCF, 3-6 Otter Tail GMO, 3-16 GW, 3-20 Hubbard DJ, 3-21 Aitkin KE, 3-22 Pennington KSS; reports from 10 other northern counties and 22 southern counties.

### **Yellow-billed Cuckoo**

Early south 5-14 Blue Earth MF, 5-17 Le Sueur HFC, 5-18 Mower RRK, 5-19 Ramsey FKB; early north 5-23 Otter Tail SM, 5-29 St. Louis RR.

### **Black-billed Cuckoo**

Early south 5-10 Fillmore GBE, 5-14 Washington DMB, 5-16 Cottonwood LAF, Anoka KL; early north 5-17 St. Louis JG, 5-18 Otter Tail RJ, 5-19 Crow Wing JB.

### **Screech Owl**

Permanent resident reported from Cottonwood, Goodhue, Hennepin, Houston, Lac Qui Parle, Lyon, Martin and Otter Tail counties.

### **Great Horned Owl**

Permanent resident reported from 26 counties south and 17 counties north.

### **Snowy Owl**

Late south 3-11 Waseca JCF, 3-23 Lac Qui Parle AE; late north 3-28 St. Louis TW, 4-19 KE, 4-20 Pennington KSS, 4-27 Cook P. Eikeland fide SW/MS; reports also from Aitkin, Beltrami, Lake of the Woods and Wilkin counties.

### **Barred Owl**

Resident reported from 15 south counties and nine north counties.

### **Great Gray Owl**

All reports: 3-22 Aitkin WN, 4-3 Lake of the Woods TA, 4-26 Lake SW/MS, 4-28 St. Louis SS, 5-7 Beltrami SY, 5-23 St. Louis J. Green, 5-26 Itasca JC.

### **Long-eared Owl**

All reports: 3-20 Hubbard DJ, 3-21 Cook KMH, 3-24 Fillmore GBE, 4-14 St. Louis JG, 5-17 Blue Earth MF.

### **Short-eared Owl**

3-24 Marshall FDS, 4-8 Waseca JCF, 4-10 Mahnomen KSS, 4-17 Lake of the Woods RJ, 5-25 St. Louis KE, 5-31 Wilkin GMO (3 young), — all reports.

### **Boreal Owl**

All reports from Cook County, 3-27

to 4-28 KMH, 3-30, 4-1 TS (6), KE, 4-24 DB, RJ.

### **Saw-whet Owl**

Reports from Anoka, Beltrami, Carver, Cook 4-1 (10) TS, Crow Wing (still in nest box 5-31 JB), Goodhue, Houston, Marshall, St. Louis and Washington counties.

### **Whip-poor-will**

Early south 4-12 Houston EMF, 4-20 Fillmore GBE, 4-25 Dakota TC; early north 5-2 Hubbard DJ, 5-3 Otter Tail GMO, 5-5 St. Louis KL, 5-6 Otter Tail SM, Lake SW/MS. Other reports from Anoka, Cook, Crow Wing, Goodhue, Hennepin, Marshall, Pennington, Rice and Wabasha counties.

### **Common Nighthawk**

Early south 4-1 Rock EB (amazing!), 5-1 Houston JP/AM, 5-6 Mower RRK, 5-7 Blue Earth JCF, Dakota MW; early north 4-10 Hubbard DJ (amazing!), 4-19 Becker DH, 5-11 Lake of the Woods TA.

### **Chimney Swift**

Early south 4-25 Stearns NMH, Washington DR, 4-26 Ramsey FKB,



Washington WHL, 4-27 Dakota JD, Blue Earth MF; early north 4-29 Otter Tail GW, 4-30 SM, 5-1 Crow Wing TS.

### **Ruby-throated Hummingbird**

Early south 5-3 Mower RRK, 5-4 Wabasha WDM, 5-5 Olmsted JSD, 5-10 Washington DR; early north 5-3 Cook TB, 5-4 Crow Wing JB, TS, 5-8 St. Louis JG, 5-12 Hubbard HJF.

### **Belted Kingfisher**

Early north 3-20 Aitkin TCS, 3-28 Hubbard HJF, Otter Tail GMO, St. Louis JG, 3-29 St. Louis LW.

### **Common Flicker**

Early north 3-24 St. Louis KE, Otter Tail GMO, 3-25 Cook SE. Reported from 27 counties with a Red-shafted phase Nicollet County 3-6 JCF.

### **Pileated Woodpecker**

Reports from 38 counties.

### **Red-bellied Woodpecker**

Reported from Kanabec, Otter Tail, Pine, St. Louis and Todd counties and 24 south counties.

### **Red-headed Woodpecker**

Early north 5-7 St. Louis JG, Pennington KSS, 5-8 Lake of the Woods TA, 5-9 Morrison DCF, Otter Tail OJ, Cook DS. Reported from 32 other counties.

### **Yellow-bellied Sapsucker**

Early south 3-28 Freeborn GS, Olmsted JF, Mower RRK, 3-29 Dakota MW, 3-31 Wabasha JSD, Stearns NMH; early north 4-9 Beltrami SY, 4-10 JP, Crow Wing TS, 4-11 Aitkin WN.

### **Hairy Woodpecker**

Permanent resident reported from 35 counties.

### **Downy Woodpecker**

Permanent resident reported from 33 counties.

### **Black-backed Three-toed Woodpecker**

3-31 Cook TS, 4-25 Cook RJ, 5-2 St. Louis SS, 5-12 Lake of the Woods TA, 5-17 Hubbard TCS, 5-29 Cook KG, 5-30 KE, 5-30 Itasca TL — all reports.

### **Northern Three-toed Woodpecker**

Reported from St. Louis 4-30, 5-2, 5-12 TH, 5-2 SS, 5-1 Cook KMH, 5-21 Lake of the Woods KSS.

### **Eastern Kingbird**

Early south 4-25 Washington DS, 4-29 Houston EMF, 5-2 Stearns GS; early north 5-3 Otter Tail SM, 5-5 Pennington KSS, 5-6 Itasca JC, 5-7 Becker TNWR.

### **Western Kingbird**

Early south 5-9 Pipestone RJ, 5-10 Washington DR, 5-13 Sherburne EH; early north 5-3 Clay LCF, 5-10 Otter Tail OJ, 5-11 SM. Reported from 8 other counties.

### **Great Crested Flycatcher**

Early south 4-30 Rice RJ, 5-2 Houston EMF, 5-4 Hennepin ES; early north 5-7 Crow Wing TS, JB, 5-11 St. Louis LW, Beltrami JP.

### **Eastern Phoebe**

Early south 3-21 Anoka KL, 3-28 Hennepin SC, Freeborn GS, 3-29 Dakota KG; early north 3-28 Otter Tail SM, GMO, Todd RJ, 4-2 Crow Wing JB, 4-4 Beltrami JP, Aitkin WN, Clay LCF.

### **SAY'S PHOEBE**

Seen 5-17 at Felton in Clay County, KE.

### **Yellow-bellied Flycatcher**

Early south 5-5 Hennepin BDC, 5-14 Hennepin ES, SC, 5-16 Washington DR; early north 5-6 Pennington KSS, 5-12 St. Louis LW, 5-17 Otter Tail DCF; late south 5-23 Olmsted JF and 5-25 JSD.

### **Acadian Flycatcher**

5-15 Houston FL.

### **Willow Flycatcher**

Early south 5-1 Lyon HK, 5-14 Ramsey RJ, 5-19 Hennepin DB, 5-20 Dakota KG; only north reports, 5-10 Otter Tail DCF, 5-24 Douglas GS.

### **Alder Flycatcher**

Early south 5-3 Hennepin ES, 5-16 Sibley RJ, 5-17 Olmsted JEB, 5-18

Rock SM; early north Aitkin 5-9 TS, 5-13 WN, 5-16 Pennington KSS, 5-20 Lake WHL.

#### **Least Flycatcher**

Early south 4-25 Lac Qui Parle KE, 4-30 Rice OJ, Hennepin DB, 5-1 Nicollet JCF; early north 4-30 Aitkin WN, 5-1 Lake of the Woods TA, 5-2 Otter Tail GS, 5-3 Clay LCF.

#### **Eastern Wood Pewee**

Early south 5-7 Wright DCF, 5-12 Hennepin VL, 5-14 GP, 5-15 Washington DS, Stearns NMH; early north 5-16 Morrison HK, 5-17 Polk KSS, 5-19 Crow Wing JB.

#### **Olive-sided Flycatcher**

Early south 5-3 Stearns NMH, 5-6 Hennepin RH, 5-9 Lincoln RJ, Ramsey FKB, 5-10 Houston JP/AM, FL, KE; early north 5-12 Itasca TL, 5-17 Mille Lacs WN, 5-23 Otter Tail SM, Crow Wing SE; late south 5-27 Hennepin RA, 5-28 SC, 5-31 Washington DR.

#### **Horned Lark**

Reported from 18 south and 11 north counties.

#### **Tree Swallow**

Early south 3-15 Sherburne RH, 3-25 Wabasha WDM, 3-27 Meeker WHL, 3-28 Anoka KL, Le Sueur EK, Dakota KG, Goodhue, JD; early north 4-4 Beltrami SY, AS, 4-6 Crow Wing JB, 4-7 Otter Tail SM, St. Louis KE.

#### **Bank Swallow**

Early south 4-16 Lyon HK, 4-25 Lac Qui Parle KE, 4-28 Washington WHL; early north 4-19 St. Louis LW, 4-27 Becker TNWR, 5-2 Otter Tail GW.

#### **Rough-winged Swallow**

Early south 4-4 Dakota KG, 4-11 Wabasha BL, Houston FL, 4-15 Lyon HK; early north 4-22 Otter Tail SM, 5-3 Beltrami JP.

#### **Barn Swallow**

Early south 4-3 Washington DR, 4-17 Nobles BL; early north 4-10 Aitkin WN, 4-22 Otter Tail SM, 4-29 Crow Wing JB, TS.

#### **Cliff Swallow**

Early south 4-26 Lac Qui Parle KE, 4-30 Rice RJ, Blue Earth MF; early north 4-28 Aitkin WN, St. Louis JG, Lake of the Woods TA, 5-1 Marshall FDS.

#### **Purple Martin**

Early south 3-8 Cottonwood LAF, 4-1 Dakota JD, 4-4 Wright DCF; early north 4-10 Crow Wing TS, 4-12 Otter Tail GMO, 4-15 Pennington KSS, Beltrami JC.

#### **Gray Jay**

Permanent resident reported from nine north counties.

#### **Blue Jay**

Permanent resident reported from 22 south and 12 north counties.

#### **Black-billed Magpie**

Reported 3-1 to 5-23 from these counties: Becker, Beltrami, Clay, Itasca, Kittson, Lake of the Woods, Marshall, Polk and St. Louis. Two nests reported by KSS, 5-6 Polk and 5-19 Marshall.

#### **Common Raven**

Permanent resident reported from 10 north counties.

#### **Common Crow**

Permanent resident reported from 22 south and 13 north counties.

#### **Black-capped Chickadee**

Resident reported from 20 south and 11 north counties.

#### **Boreal Chickadee**

Reported from Cook 3-28 ES, 5-13 KE, 5-29 KG, 4-28 St. Louis JG, 5-8,10 Lake SW/MS, 5-10,12,30 Itasca TL, 5-21 Lake of the Woods KSS.

#### **Tufted Titmouse**

Reported 3-1 through 5-31 Houston EMF, 3-1,7, 4-18, 5-10 JP/AM, 4-18 FL, 5-10 KE and 3-7 Fillmore RJ.

#### **White-breasted Nuthatch**

Permanent resident reported from 22 south and 11 north counties.

**Red-breasted Nuthatch**

Reported from 17 south and 11 north counties. Late south 5-17 Rice KJ, Nicollet JCF, 5-18 MF, 5-21 Dakota JD. Female feeding young in nest hole reported 3-31 Hennepin SC.

**Brown Creeper**

Late south 5-24 Stearns MC, 5-28 Hennepin SC; early north 3-8 Beltrami JP, Otter Tail 3-26 GW, 3-29 GMO. Reported from 34 counties.

**House Wren**

Early south 4-16 Anoka SE, 4-20 Ramsey DL; early north 4-29 Otter Tail SM, 5-2 Clay LCF, 5-3 Beltrami JC, JP.

**Winter Wren**

Early south 3-15 Dakota JD, 3-29 Olmsted JF, 3-30 Hennepin SC; early north 4-9 Cook KMH, 4-13 Crow Wing JB, 4-15 Beltrami SY; late south 4-20 Olmsted JEB, 4-21 Houston EMF.

**CAROLINA WREN**

One report 5-25 Duluth KL.

**Long-billed Marsh Wren**

Early south 4-24 Stearns NMH, 4-25 Lyon HK, 5-1 Nicollet JCF; early north Otter Tail 5-2 GMO, 5-10 SM, 5-15 Marshall FDS.

**Short-billed Marsh Wren**

Early south 4-20 Dakota JD, 4-20 Washington DS, 4-26 Steele JSD, 4-29 Hennepin RR; early north 5-9 Aitkin TS, 5-13 WN, 5-9 Otter Tail GMO, 5-10 Kittson KSS, Itasca TL.

**Mockingbird**

All reports: 4-16 Cottonwood, 4-26 KLF, 4-28 Houston EMF, 5-30 Blue Earth JCF, 5-31 St. Louis B. Healey.

**Gray Catbird**

Early south 4-16 Lyon HK, 5-3 Houston EMF, 5-4 Hennepin VL, Mower RRK; early north 5-7 St. Louis JG, 5-8 LW, TL, 5-8 Otter Tail GW, 5-10 Becker TNWR.

**Brown Thrasher**

Early south 3-21 Dakota JD, 4-1 Stearns NMH, 4-11 Goodhue BL, 4-12

Dakota KG, Washington DR; early north 4-26 Grant SM, 4-30 Clay LCF, Aitkin JB.

**American Robin**

Reported from 37 counties; March 1 date from Cottonwood, Fillmore, Rock, Stearns and Otter Tail.

**Wood Thrush**

Early south 4-11 Washington B. Jung, 4-16 Hennepin OJ, 4-18 Washington DS, 5-3 Mower RRK; early north 5-19 Itasca MS, 5-24 St. Louis KE.

**Hermit Thrush**

Early south 4-1 Ramsey BL, Lyon HK, 4-2 Hennepin ES, 4-4 Ramsey JSD, Dakota JD, Olmsted JEB; early north 4-8 Aitkin JB, 4-12 St. Louis LW, 4-15 Mahnomen RJ; late south 5-6 Washington DMB, 5-29 Hennepin BDC.

**Swainson's Thrush**

Early south 5-1 Nicollet CF, 5-3 Stearns NMH, Hennepin SC, VL, DB, ES, Swift GS, Wabasha WDM, Mower RRK; early north 4-26 Beltrami SY, 5-4 Otter Tail GW; late south 5-17 Houston EMF, 5-19 Rock SM.

**Gray-cheeked Thrush**

Early south 4-11 Washington B. Jung, 5-3 Hennepin SC, DB, ES, Stearns NMH, Martin EB, 5-4 Olmsted JF; early north Otter Tail 5-4 GW, 5-10 DCF, 5-9 St. Louis LW; late south 5-17 Houston JP/AM, 5-18 Rock SM; late north 5-25 St. Louis JG, KE.

**Veery**

Early south 5-3 Mower RRK, 5-5 Hennepin ES, RH, SC, GP, Olmsted JSD, Stearns MC, 5-6 Sherburne EH, Stearns NMH; early north 5-6 Crow Wing TS, 5-9 St. Louis KE, Clearwater JP, Aitkin JG, 5-10 Itasca TL.

**Eastern Bluebird**

Early south Houston 3-5 EMF, 3-7 FL, 3-13 Rice OJ, DB; early north 3-3 Otter Tail GMO, 3-18 SM, 3-26 Becker DJ. Reported from 22 other counties.

### **MOUNTAIN BLUEBIRD**

Two reports: 3-27 Roseau FDS and 4-19 Wabasha JSD.

### **Blue-gray Gnatcatcher**

Early south 4-18 Houston EMF, 4-19 Wabasha JSD, 4-24 Freeborn J. Zakelj fide JG, 4-26 Goodhue GS, 5-27 nest Blue Mounds State Park, Rock Co., EB.

### **Golden-crowned Kinglet**

Early north 3-28 Pennington KSS, St. Louis 4-4 LW, 4-7 TH, JG; late south 4-17 Houston JP/AM, 4-28 Dakota TC, 5-1 Lyon HK.

### **Ruby-crowned Kinglet**

Early south 3-28 Olmsted JF, JSD, Hennepin 3-29 RJ, 3-30 SC, 3-31 Dakota VL; early north 3-28 Otter Tail GMO, 4-7 Pennington KSS, 4-9 St. Louis LW, Itasca JC; late south 5-18 Houston EMF, 5-19 Hennepin SC, 5-24 Washington DS.

### **Water Pipit**

Early south 4-26 Lac Qui Parle KE; early north 4-4 Marshall KSS, 4-25 St. Louis SS, 4-29 Grant SM; late south 5-14 Lyon HK; late north 5-14 Cook KMH, 5-15 St. Louis GP, SC, 5-17 OJ.

### **Bohemian Waxwing**

All reports: 3-13 Beltrami JP, 3-22 Pennington KSS, 3-24 Cook KMH, 3-27 St. Louis LW, 3-28 Washington WHL, 3-29 Crow Wing MN, March and 4-5 Crow Wing JB.

### **Cedar Waxwing**

50 reports from 34 counties.

### **Northern Shrike**

Late south 3-22 Anoka KL, 4-7 Wabasha WDM; late north 3-28 Aitkin KE, 4-2 Cook KMH, 4-7 St. Louis JG.

### **Loggerhead Shrike**

Early south 3-14 Hennepin ES, 3-28 Dakota JD, Goodhue KG, 3-30 Mower RRK; early north 4-6 Pennington RJ, 4-28 Clay LCF, 4-29 Otter Tail SM.

### **Starling**

Permanent resident reported from 17 counties south and nine counties north.

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### **Bell's Vireo**

Five reports: 5-1 Wabasha DWM, 5-8 Washington RH, 5-15 Winona SM, 5-30 Fillmore RJ, Wabasha WDM.

### **Yellow-throated Vireo**

Early south 5-2 Ramsey FKB, 5-3 Houston JP/AM, 5-5 Hennepin SC, VL, GP, ES, Mower RRK; early north 5-10 Otter Tail SM, 5-11 Crow Wing TS, 5-13 St. Louis KE.

### **Solitary Vireo**

Early south 4-26 Blue Earth JCF, Hennepin KJ, 4-30 Rice RJ, 5-3 Hennepin SC, DB, ES, Mower RRK, Olmsted JF; early north 4-26 Otter Tail SM, 5-2 Otter Tail GW, 5-3 Marshall KE.

### **Red-eyed Vireo**

Early south 4-28 Hennepin OJ, 5-3 Rice KJ, 5-5 Hennepin VL; early north 4-26 Aitkin WN, 5-7 Itasca MS, St. Louis TH, 5-10 St. Louis LW.

### **Philadelphia Vireo**

Early south 5-4 Anoka KL, Hennepin SC, OJ, Rice KJ, 5-5 Hennepin VL, GP, ES, 5-6 Hennepin DB; early north 5-8 St. Louis JG, 5-13 Lake SW/MS, 5-15 Pennington KSS.

### **Warbling Vireo**

Early south 4-30 Houston JP/AM, 5-1 Faribault JCF, 5-2 Anoka GP; early north 5-5 Otter Tail JM, 5-7 Otter Tail SW, St. Louis KE, 5-9 Itasca TL, Otter Tail OJ.

### **Black-and-white Warbler**

Early south 4-22 Stearns MC, 4-25 Lac Qui Parle HK, Washington DR, 4-26 Houston EMF; early north 4-30 Crow Wing JB, 5-1 Clay TL, 5-2 Otter Tail GW.

### **Prothonotary Warbler**

Five reports: 5-10 Houston JP/AM, 5-14 Blue Earth MF, 5-16 Goodhue RR, Houston SM, 5-21 Houston FL.

### **WORM-EATING WARBLER**

5-5 Mower RRK, see *The Loon*, Vol. 53, No. 3, p. 172.

### **Golden-winged Warbler**

Early south 5-2 Hennepin RR, 5-3

Hennepin DB, 5-5 Hennepin PF; early north 5-9 Aitkin JB, JG, 5-10 Crow Wing JB, 5-16 Mahnomen KE.

#### **Blue-winged Warbler**

Early south 5-3 Houston JP/AM, 5-4 Hennepin VL, 5-5 Mower RRK.

#### **Tennessee Warbler**

Early south 4-30 Ramsey FKB, 5-1 Fillmore GBE, 5-3 nine reports from eight counties; early north 4-29 Crow Wing JB, 5-8 Crow Wing TS, 5-9 Aitkin WN, Itasca TL.

#### **Orange-crowned Warbler**

Early south 4-22 Ramsey RJ, 4-25 seven reports from five counties; early north 4-25 Clay LCF, 4-26 Grant SM, 4-27 Otter Tail GW; late south 5-20 Hennepin JC, Olmsted JF; late north 5-25 St. Louis KE.

#### **Nashville Warbler**

Early south 4-25 Hennepin OJ, ES, Sherburne NMH, 4-26 Anoka JCH, Mower RRK, 4-27 Anoka SC; early north 5-2 St. Louis TH, 5-3 St. Louis D. Green, 5-5 Pennington KSS, St. Louis KE, JG; late south 5-19 Hennepin SC, 5-20 Houston EMF, 5-25 Houston JP/AM.

#### **Northern Parula**

Early south 4-30 Houston JP/AM, 5-2 Wright RH, 5-5 Hennepin SC, GP, RR, Olmsted JF; early north 5-3 St. Louis D. Green, 5-6 Lake SW/MS, 5-8 Clearwater JP; late south 5-27 Hennepin. SC.

#### **Yellow Warbler**

Early south 5-3 Hennepin DB, Houston JP/AM, Kandiyohi GS, Lyon HK, Sherburne NMH, 5-4 Hennepin SC, Houston EMF, Mower RRK, Wabasha DWM; early north 5-3 Crow Wing JB, 5-5 Itasca MS, Otter Tail SM, 5-6 Pennington KSS.

#### **Magnolia Warbler**

Early south 5-3 Mower RRK, Olmsted JF, 5-4 Houston EMF, 5-5 Hennepin BDC; early north 5-3 St. Louis D. Green, 5-6 Lake SW/MS, 5-7 Crow Wing JB, TS; late south 5-26 Anoka

JLH, Houston EMF, Rice KJ, 5-27 Hennepin DB, 5-29 Hennepin ES.

#### **Cape May Warbler**

Early south 5-4 Wabasha DWM, 5-9 Goodhue FKB, JSD, Olmsted JEB, 5-10 Houston KE, JP/AM; early north 5-8 St. Louis TL, 5-9 Aitkin TS, Becker TNWR, Itasca TL, Marshall FDS, 5-10 Aitkin WN, Crow Wing JB, St. Louis D. Green; late south 5-20 Hennepin SC, DB.

#### **Black-throated Blue Warbler**

Early south 5-25 Dakota KG, Murray A. Dekam; early north 5-1 Hubbard DJ, 5-18 Cook KMH, 5-25 St. Louis KE, JG.

#### **Yellow-rumped Warbler**

3-1 Wabasha DWM (overwintered), 4-1 Lyon HK, 4-7 Dakota TC; early north 4-8 Aitkin WN, 4-10 Beltrami JP, 4-14 Crow Wing RJ, St. Louis JG, LW; late south 5-21 Olmsted JF, 5-22 Houston EMF, 5-30 Anoka JLH, 4-25 Stearns NMH Audubons race.

#### **Black-throated Green Warbler**

Early south 4-26 Mower RRK, 4-28 Hennepin ES, 4-29 Hennepin OJ, Olmsted JF; early north 5-1 Crow Wing JB, TS, 5-9 Itasca TL, St. Louis KE, 5-10 St. Louis D. Green, LW; late south 5-26 Anoka SC.

#### **Cerulean Warbler**

Early south 5-10 Houston JP/AM, KE, 5-15 Houston SM, 5-16 Anoka KL, Goodhue RR.

#### **Blackburnian Warbler**

Early south 4-29 Olmsted JF, 5-3 Houston JP/AM, 5-4 Hennepin OJ, Stearns MC; early north 5-5 Hubbard HJF, 5-8 Clearwater JP, 5-9 St. Louis D. Green; late south 5-26 Rice KJ, 5-27 Hennepin SC, DB.

#### **Chestnut-sided Warbler**

Early south 5-3 Cottonwood LAF, Hennepin DB, ES, 5-5 Houston EMF, Hennepin VL, Mower RRK, Olmsted JF, Rice KJ, 5-6 Hennepin PF, Olmsted JSD, Wabasha DWM; early north 5-8 Clearwater JP, Crow Wing JB,

5-9 Itasca TL, Morrison DCF, 5-10 Beltrami AS.

#### **Bay-breasted Warbler**

Early south 5-5 Olmsted JF, 5-8 Hennepin SC, 5-9 Goodhue JEB, JSD, Washington RH; early north 5-9 Itasca TL, Otter Tail OJ, 5-10 Crow Wing JB, TS, Lake SW/MS, St. Louis D. Green; late south 5-25 Hennepin ES.

#### **Blackpoll Warbler**

Early south 4-25 Lac Qui Parle HK (RQD pending), 5-3 Houston JP/AM, Olmsted JF, 5-4 Hennepin SC, VL; early north 5-7 Crow Wing JB, TS, 5-9 Itasca TL, St. Louis KE, 5-10 Beltrami JP, AS; late south 5-28 Hennepin SC, 5-31 Hennepin ES; late north 5-26 St. Louis KE, 5-31 Cook KMH, St. Louis KE.

#### **Pine Warbler**

Early south 4-24 Swift RH, 5-4 Washington DS; early north 4-22 Crow Wing TS, 4-25 Beltrami JP, 5-3 St. Louis JG; late south 5-26 Hennepin ES.

#### **Palm Warbler**

Early south 4-24 Houston JP/AM, EMF, 4-25 Lac Qui Parle KE; early north 4-23 Beltrami JP, 4-26 Aitkin WN, JB, Becker SM, Beltrami AS; late south 5-18 Hennepin SC, Houston EMF, 5-21 Anoka JLH.

#### **Ovenbird**

Early south 4-29 Le Sueur HFC, 4-30 Hennepin SC, Rice RJ, 5-2 Anoka GP; early north 5-2 St. Louis KE, 5-4 Crow Wing JB, 5-5 Cass TL.

#### **Northern Waterthrush**

Early south 4-28 Hennepin SC, Olmsted JF, 4-29 Hennepin OJ, ES, Olmsted JSD; early north 5-6 Pennington KSS, 5-9 Aitkin JG, Itasca TL, Marshall FDS, Morrison DCF, St. Louis D. Green, KE; late south 5-25 Anoka JLH, 5-26 Hennepin SC, 5-30 Hennepin DB.

#### **Louisiana Waterthrush**

Eight reports: 4-4 Houston JP/AM, 5-3 Hennepin ES, 5-5 Olmsted JSD, 5-7 Ramsey FKB, 5-10 Houston KE, FL, 5-15 Houston FL, 5-17 Olmsted JEB.

#### **Connecticut Warbler**

Early south 5-14 Ramsey RJ, 5-16 Rice KJ, 5-20 Hennepin OJ; early north 5-17 Beltrami AS, 5-24 St. Louis JG, 5-25 St. Louis KE; late south 5-30 Cottonwood LAF.

#### **Mourning Warbler**

Early south 5-5 Hennepin SC, GP, 5-10 Washington DR; early north 5-9 Aitkin WN, Itasca TL, 5-16 Becker RA, Beltrami AS, Mahnomen KE, 5-17 Crow Wing JB; late south 5-30 Fillmore RJ, 5-31 Hennepin DB.

#### **Common Yellowthroat**

Early south 4-28 Washington DS, 5-3 Blue Earth JCF, Lyon HK, Mower RRR, Wright DCF, 5-4 Wabasha DWM; early north 5-6 Polk KSS, St. Louis KE, 5-8 Clearwater JP, 5-9 Aitkin WN, JB, TS, Marshall FDS.

#### **HOODED WARBLER**

One report: 5-26 Scott SM.

#### **Wilson's Warbler**

Early south 4-28 Hennepin VL, 4-30 Rice RJ, 5-1 Fillmore GBE; early north 5-3 St. Louis D. Green, 5-7 Beltrami JP, Crow Wing JB, TS, 5-8 St. Louis TL; late south 5-28 Hennepin SC; late north 5-25 St. Louis JG, 5-27 Cook KMH, St. Louis KE.

#### **Canada Warbler**

Early south 5-8 Hennepin OJ, 5-9 Hennepin ES, 5-13 Houston EMF; early north 5-16 Mahnomen KE, Pennington KSS, 5-17 Crow Wing WN, Mille Lacs JB, 5-18 Douglas RJ; late south 5-25 Olmsted JSD, Washington DR, 5-26 Houston EMF, 5-28 Hennepin SC.

#### **American Redstart**

Early south 4-25 Washington RA, 5-3 Hennepin ES, Mower RRR, 5-4 Hennepin DB, SC; early north 5-7 Crow Wing JB, TS, 5-8 St. Louis KE, LW, 5-9 Clearwater JP, Itasca TL, Pennington KSS.

#### **House Sparrow**

Reported from 24 counties throughout the state.

**Bobolink**

Early south 4-24 Blue Earth MR, 5-1 Fillmore GBE, 5-3 Houston EMF, Rice KJ; early north 5-9 Otter Tail OJ, 5-10 Itasca TL, Marshall FDS, Otter Tail DCF, SM, 5-14 Lake SW/MS.

**Eastern Meadowlark**

Early north 3-6 Marshall FDS, 3-14 Aitkin WN, 3-20 Clay LCF.

**Western Meadowlark**

Early north 3-14 Otter Tail GW, 3-15 Otter Tail SM, Wilkin FKS, 3-20 Becker DJ.

**Yellow-headed Blackbird**

Early south 3-30 Dakota TC, 4-3 Nicollet JCF, 4-11 Anoka KL; early north 4-12 Otter Tail SM, 4-16 Morrison DCF, 4-18 Becker TNWR, Otter Tail EH.

**Red-winged Blackbird**

Early south 3-1 Blue Earth JCF, Cottonwood LAF, Pipestone RJ, Scott BDC, 3-2 Fillmore GBE, Houston EMF, 3-3 Hennepin RA; early north 3-11 Aitkin WN, 3-12 Otter Tail SM, 3-14 Otter Tail GW.

**Orchard Oriole**

Early south 5-3 Houston JP/AM, 5-10 Wabasha KE, 5-12 Olmsted JF, Wabasha JSD; one report north 5-25 Pine RJ.

**Northern Oriole**

Early south 4-26 Stearns C. Mohs, 4-27 Olmsted JSD, 4-28 Le Sueur HFC; early north 5-3 Pennington KSS, 5-5 Otter Tail SM, Pennington GW, 5-6 Aitkin WN.

**Rusty Blackbird**

Early north 3-22 Otter Tail GW, 4-11 St. Louis KE, 4-13 Cook KMH, Marshall KSS; late south 4-20 Stearns NMH, 4-24 Nicollet JCF; late north 5-1 Douglas SM, 5-9 Itasca MS.

**Brewer's Blackbird**

Early south 3-1 Houston EMF, 3-6 Nicollet JCF, 3-14 Mower RRK; early north 3-22 Wilkin FKS, 3-28 Pennington KSS, 4-13 St. Louis JG.

**Common Grackle**

Early north 3-12 Otter Tail GW, 3-16 Hubbard HJF, 3-21 Otter Tail SM.

**Brown-headed Cowbird**

Early south 3-1 Pipestone RJ, 3-4 Houston EMF, 3-6 Nicollet JCF; early north 4-3 St. Louis D. Green, 4-4 St. Louis KE, 4-7 Cook KMH.

**WESTERN Tanager**

4-30 through 5-9 Ramsey RJ, OJ, DB, BDC, RR, DS, see **The Loon**, Vol. 53, No. 3, p. 169; 5-4 Mower Terry Dorsey.

**Scarlet Tanager**

Early south 5-4 Anoka KL, 5-6 Sherburne EH, 5-7 Ramsey FKB; early north 5-9 Aitkin TS, Itasca TL, 5-15 Morrison NMH, 5-16 Becker RA.

**SUMMER Tanager**

5-9 Goodhue Alice Johnson, see **The Loon** Vol. 53, No. 3, p. 170.

**Cardinal**

Reported from 19 counties south and from Crow Wing, Lake and St. Louis counties north.

**Rose-breasted Grosbeak**

Early south 4-27 Hennepin ES, Houston EMF, 4-28 Wabasha DWM, 4-30 Lyon HK; early north 5-1 Lake of the Woods TA, 5-3 Crow Wing JB, 5-4 Itasca TCS.

**Blue Grosbeak**

Two reports: 5-21 Rock SM, 5-30 Rock JP/AM.

**Indigo Bunting**

Early south 5-4 Anoka KL, Houston EMF, Mower RRK, 5-7 Blue Earth MF, Hennepin SC, Houston JP/AM, 5-8 Nicollet JCF, Stearns MC; early north 5-12 Becker TNWR, 5-19 Aitkin CM, St. Louis KE, 5-23 Crow Wing JB, St. Louis JG.

**LAZULI BUNTING**

5-26 Cook KMH, see **The Loon** Vol. 53, No. 3, pp. 162-163.

**Dickcissel**

Four reports: 5-20 Wright DCF, 5-28

Olmsted JEB, 5-29 Nicollet JCF, 5-31 Mower RRK.

### **Evening Grosbeak**

Late south 4-24 Swift RH, 4-28 Wabasha DWM, 5-7 Anoka JLH.

### **Purple Finch**

Late south 5-7 Anoka GP, Dakota JD, Houston EMF, 5-16 Hennepin OJ, 5-31 Anoka JLH.

### **Pine Grosbeak**

Late south 3-29 Dakota MW; late north 3-24 Cook KMH, Marshall FDS.

### **Hoary Redpoll**

Three reports: 3-9 Crow Wing JB, 3-23 Beltrami AS, 4-12 Cook KMH.

### **Common Redpoll**

Late south 5-5 Anoka KL; late north 4-16 Pennington KSS, 4-19 Cook KMH, 4-25 Aitkin WN.

### **Pine Siskin**

Reported throughout the period from 16 counties south and nine counties north.

### **American Goldfinch**

Reported from 20 counties south and nine counties north.

### **Red Crossbill**

Reported from Anoka and Dakota counties south; Beltrami, Cook, Crow Wing, Itasca and Lake of the Woods counties north.

### **White-winged Crossbill**

Seven reports: 3-3 Hennepin DB, Olmsted JF, 3-7 Aitkin TS, Crow Wing JB, 3-10 through 3-16 Dakota KG, 4-28 St. Louis SS, 5-17 Hennepin DS.

### **Rufous-sided Towhee**

Early south 4-11 Goodhue BL, 4-12 Olmsted JSD, 4-13 Houston EMF; early north 5-1 Beltrami JC, 5-6 St. Louis KE, 5-7 Beltrami JP. Western race reported on 5-19 Rock SM.

### **Savannah Sparrow**

Early south 4-6 Sherburne EH, 4-9 Ramsey FKB, 4-10 Anoka KL; early north 4-12 St. Louis LW, 4-16 Pennington RJ, 4-18 Aitkin SC.

### **Grasshopper Sparrow**

Early south 4-24 Chippewa RH, 4-25 Chippewa KE, Lac Qui Parle HK, Hennepin ES. Two reports north: 5-10 Kittson KSS and 5-30 Aitkin SC.

### **Henslow's Sparrow**

One report: 5-4 Stearns NMH.

### **Le Conte's Sparrow**

Early south 4-18 Mower RRK, 4-25 Lac Qui Parle KE, FL, RR, 4-26 Anoka KL, Hennepin SC; early north 5-2 Pennington KE, 5-9 Aitkin TS, 5-14 TL.

### **Sharp-tailed Sparrow**

Two reports: 5-23 Mahnomen KE, SM, 5-30 Aitkin KE.

### **Vesper Sparrow**

Early south 3-26 Sherburne EH, 4-2 Blue Earth JCF, 4-4 Rice KJ; early north 4-12 Otter Tail SM, GW, 4-14 Morrison RJ, 4-17 Pennington KSS.

### **Lark Sparrow**

Early south 4-25 Anoka GP, 4-27 Anoka SC, 5-6 Anoka KL. One report north: 5-24 Polk SM.

### **Dark-eyed Junco**

Late south 5-5 Hennepin SC, GP, 5-10 Washington DS, 5-13 Ramsey RH.

### **Tree Sparrow**

Late south 4-16 Hennepin SE, ES, 4-17 Hennepin SC, 4-27 Hennepin OJ, Ramsey RH; late north 5-2 St. Louis JG, 5-3 Lake SW/MS, 5-7 Cook KMH.

### **Chipping Sparrow**

Early south 4-1 Stearns NMH, 4-3 Hennepin SC, 4-6 Dakota TC; early north 4-13 Hubbard HJF, 4-17 Clay LCF, 4-20 Otter Tail SM.

### **Clay-colored Sparrow**

Early south 4-25 Lac Qui Parle FL, KE, RH, HK, 4-26 Anoka KL, 4-30 Houston JP/AM; early north 4-28 Otter Tail SM, GW, 4-29 Beltrami JP, Crow Wing JB, TS, 4-30 Marshall FDS.

### **Field Sparrow**

Early south 3-28 Olmsted JEB, Stearns SE, 3-31 Hennepin RJ, 4-3 Nicollet JCF; early north 4-17 Otter Tail SM.

### **Harris' Sparrow**

Early south 4-17 Martin BL, 4-25 Lac Qui Parle KE, RH, 4-26 Lac Qui Parle FL; early north 4-27 Douglas JB, 4-30 Clay LCF, 5-5 Aitkin WN, Pennington KSS, St. Louis KE; late south 5-17 Rice KJ, 5-12 Cottonwood LAF, 5-18 Lac Qui Parle AE; late north 5-18 Wilkin RJ, 5-30 Pennington KSS.

### **White-crowned Sparrow**

Early south 4-17 Olmsted JEB, 4-24 Lac Qui Parle RH, 4-25 Washington DS; early north 4-29 Otter Tail GW, 4-30 Becker TNWR, 5-3 Clay LCF, St. Louis JG; late south 5-18 Hennepin SC, 5-20 Stearns SE, Washington DMB, 5-23 Washington ES; late north 5-18 Wilkin RJ, 5-19 Cook KMH, St. Louis JG, 5-21 Lake of the Woods KSS.

### **White-throated Sparrow**

Early south 3-1 Houston EMF (overwintered), 3-16 Hennepin KE, 4-8 Hennepin GP, ES, 4-14 Hennepin SC; early north 3-24 Pennington KSS, 4-2 Itasca MS, 4-11 Cass DJ, St. Louis LW, 4-14 St. Louis JG; late south 5-13 Hennepin VL, Houston EMF, 5-14 Washington DR, 5-15 Dakota TC, Nicollet JCF, Stearns SE, Wabasha DWM.

### **Fox Sparrow**

Early south 3-20 Stearns NMH, 3-23 Washington DS, 3-24 Hennepin SC, Washington DMB; early north 3-26 Beltrami SY, 3-28 Beltrami JC, Crow Wing JB, Todd RJ, 4-2 Itasca MS; late south 4-12 Olmsted JF, 4-20 Hennepin SC, 4-26 Washington DMB; late north 4-29 Cook KMH, 5-1 St. Louis JG, 5-14 Beltrami AS.

### **Lincoln's Sparrow**

Early south 4-8 Washington DR, 4-17 Hennepin SC, 4-18 Rock BL; early north 4-26 Clay LCF, Otter Tail SM, 5-7 St. Louis LW, 5-8 Cook KMH; late south 5-15 Cottonwood LAF, Nicollet JCF, 5-16 Le Sueur HFC, 5-20 Hennepin SC.

### **Swamp Sparrow**

Early south 3-21 Olmsted RJ, 3-22 Anoka KL, 3-28 Olmsted JEB; early north 4-15 Becker RA, 4-16 St. Louis

KE, 4-23 Pennington KSS.

### **Song Sparrow**

Early south 3-1 Houston EMF, 3-13 Hennepin SC, 3-14 Lyon HK, Mower RRR; early north 3-21 Lake of the Woods TA, 3-25 Crow Wing JB, Otter Tail SM, St. Louis D. Schneider, 3-27 Clay LCF.

### **Lapland Longspur**

Late south 4-1 Traverse SM; late north 5-14 Cook KMH, 5-16 St. Louis KE, 5-19 St. Louis SS.

### **Smith's Longspur**

Two reports: 4-25 Wilkin JP/AM, 4-26 Big Stone KE, 25 birds.

### **Chestnut-collared Longspur**

One report: 5-17 Clay KE.

### **Snow Bunting**

Late north 5-15 Red Lake AS, St. Louis KE, SC, GP, 5-17 St. Louis OJ, 5-25 St. Louis LW.

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# Breeding Distribution, Song and Habitat of the Alder Flycatcher and Willow Flycatcher in Minnesota

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The A.O.U. Check-list Committee (1973) agreed with Stein (1958, 1963) that the two song types of the "Traill's" Flycatcher (*Empidonax traillii*) represent separate species: the Alder Flycatcher, *E. alnorum* ("fee-bee'-o"), of boreal zone wetlands, and the more southerly distributed Willow Flycatcher, *E. traillii* ("fitz'-bew"), of both wetland and upland thickets. This paper summarizes available information on the status, habitat preference, and song of these two species in Minnesota. Both breed in the state but their distributions are not well documented. According to Green and Janssen (1975) and Peterson (1980), the Willow Flycatcher nests in the southern and western regions and the Alder Flycatcher in the northern region of the state. This implies a parapatric distribution in which ranges abut but do not overlap. However, Eckert (1980) reported the first records, from Clay and Wilkin counties, of the sympatric (both forms occurring in the same place) occurrence of these sibling species in Minnesota. We report several new sites of breeding sympatry and show that there is a zone of sympatry across the state. When records are unidentifiable as either the Willow or Alder Flycatcher, we refer to "Traill's" Flycatcher.

**Status of the species in Minnesota** — As most records of "Traill's" Flycatcher in Minnesota before 1975 were not segregated by song type, the his-

torical occurrence and distribution of the Willow and Alder Flycatchers are uncertain. Roberts (1932) stated that "Traill's" Flycatchers were fairly common in the southern part of the state as well as the prairie lowlands, and became increasingly abundant northward such that "in the upper half of the state its harsh cry comes from every alder thicket and wooded swamp." However, of Roberts' (1932) descriptions of vocalizations of the "Traill's" Flycatcher (see beyond), all but one appear to be of the Alder Flycatcher. His reference to the abundance of "Traill's" in northern Minnesota is undoubtedly to the Alder Flycatcher, whose status is similar today. The less abundant birds of southern Minnesota and the prairies (including the uplands) were most likely Willows. In the Bell Museum of Natural History, there are 10 old Minnesota specimens (1879-1913) of "Traill's" Flycatchers, collected during summer (8 June - 25 July), and recently identified by A. R. Phillips and/or R. C. Stein. Five, from southern and southwestern counties, are labeled Willow Flycatchers; the remaining five, from northern or northwestern counties, are labeled Alder Flycatchers. Stein (1958, 1963) stated that the Willow Flycatcher was expanding its range northward at the "expense" of the Alder Flycatcher, at least in the northeastern U.S. Both species occurred in Minnesota at the turn of the century, but the data are

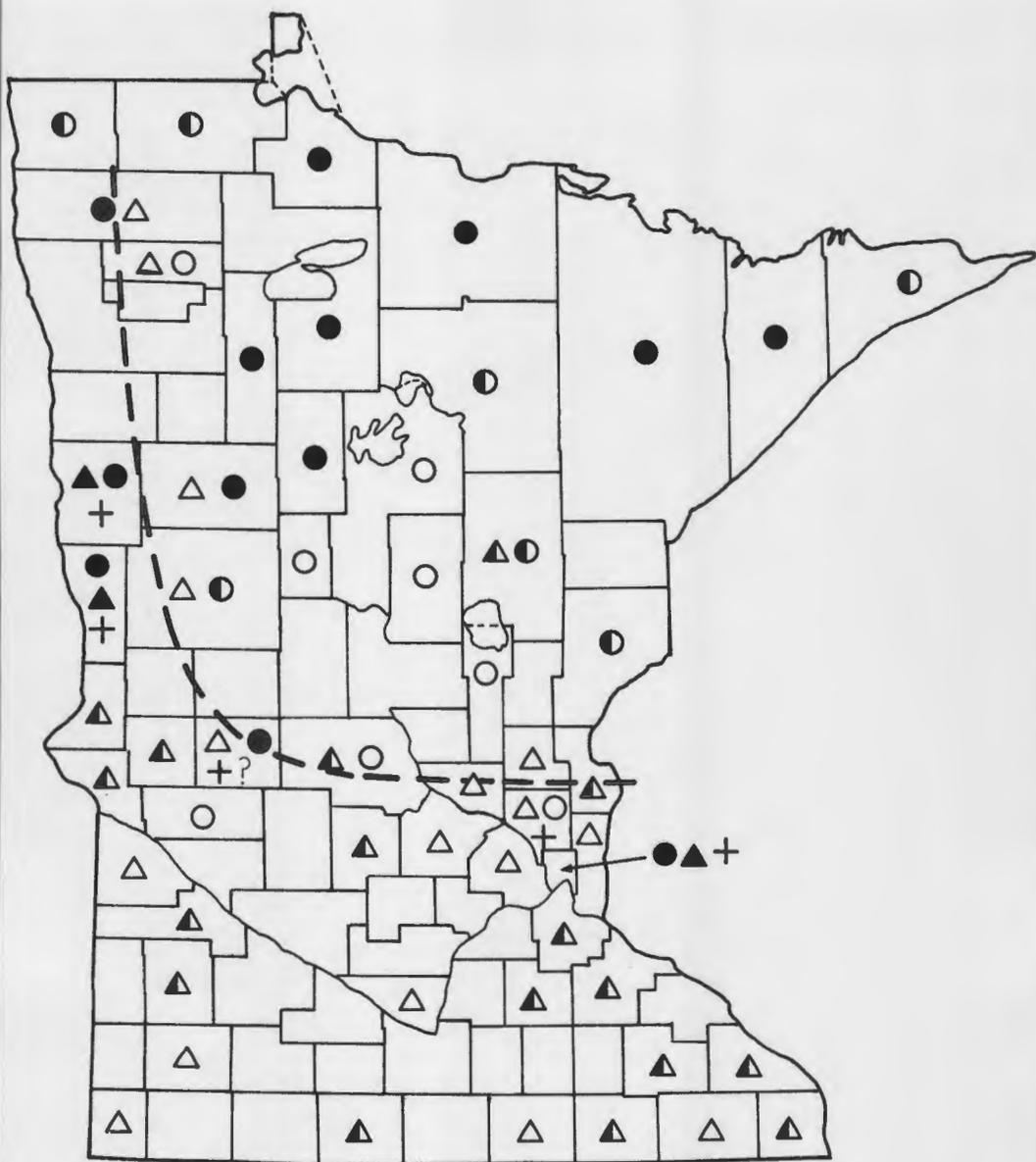


Figure 1. Approximate breeding distribution of the Alder Flycatcher (circles) and Willow Flycatcher (triangles) in Minnesota. Records taken from R. B. Janssen's field notes (1974-1981), Summer Season Reports (1 June to 31 July) in *THE LOON* (1975-1979, inclusive), Faanes (1981), Henderson (1981), Rustad (1977), and Table 1. Records obtained by the authors are denoted by solid symbols; those of R. Janssen are half-solid, and the remainder are open. Sites of syntopic occurrence (Table 1) are shown as +. Records shown here are accurate only to the level of county. The dashed line passes through the zone of sympatry.

insufficient to determine whether the range and abundance of either have changed in recent years.

Henderson (1981) summarized several years of Breeding Bird Surveys in Minnesota. The apparent density of the Willow Flycatcher in southern and western Minnesota is an order of magnitude less than that of the Alder in northern Minnesota. Relative densities of Willows were about 1 to 2, and of Alders 12 to 53 birds per 100 miles of transect. We feel this reflects in part the scarcity of non-agricultural habitats in the south and west included in these surveys. In suitable habitat, the Willow Flycatcher is quite common. For example, RMZ found over 50 pairs of Willows in six days (8-13 June 1981) in Clay, Norman, and Wilkin counties, and considerable similar habitat exists that was not surveyed (RMZ, pers. obs.). In Anoka Co., on 2 July 1981, we found 12 singing Willow Flycatchers in about three h.

To show the general breeding ranges of these sibling species, we summarized existing records obtained during the breeding season by us, by R. B. Janssen, from summer season reports in *The Loon*, and other sources (Fig. 1). The general distribution shown in this figure corresponds to Green and Janssen's (1975) description and Henderson's (1981) maps. In Table 1, we present Minnesota localities where the species breed sympatrically (and syntopically, or "within hearing distance of one another"). Stein (1963) listed the following known instances of sympatry of the two song types: British Columbia, Wisconsin, Pennsylvania, Maryland, New York, and Maine. They are also sympatric in central Michigan (Ewert 1981) and possibly southeastern South Dakota (Whitney et al. 1978). From the information in Table 1 and Fig. 1, we conclude that there is a zone of sympatry in Minnesota rather than merely an abutment of ranges (parapatry). We have tentatively drawn a line through this zone (Fig. 1), which is roughly confluent with the zone of sympatry

in Wisconsin (Robbins 1974). It is possible that the zone in Minnesota will correspond to areas where prairie (Willow Flycatcher habitat) and boreal (Alder Flycatcher habitat) communities interdigitate. However, this zone of sympatry remains to be fully documented and its limits described. We present this map to show where records are needed. Especially useful will be observations from those counties near the dashed line. However, verification of existing records is as important as the gathering of new ones.

**Song** — Alder and Willow Flycatchers are too similar morphologically to be identified by sight alone. Persons interested in identifying captured birds should consult Stein (1958, 1963) and Phillips et al. (1966). The advertising song of the male is the best means of field identification.

There is potential confusion over the identification of the Alder and Willow Flycatcher songs in Minnesota. We have noted, as did Roberts (1932), Godfrey (1966) and others (see McCabe 1951), that songs of the Alder Flycatcher can be interpreted as 2-syllabled (e.g., "fee-beer") rather than the 3-syllabled "fee-bee'-o" described in many field guides. For example, Roberts (1932) listed as renditions of the songs of the "Traill's" Flycatcher, "qui-dee," "kee-wing," and "whip-whew," all of which undoubtedly refer to the Alder Flycatcher. Phonetic descriptions of the song of the Willow Flycatcher are 2-syllabled. However, many "fitz-bew" songs are preceded by a loud "creet," and thus consist of three syllables (McCabe 1951, Stein 1963). Therefore, since songs of the Alder Flycatcher may appear to have only two syllables, and some songs of the Willow have three, it can be difficult to identify these species if one relies on the "fitz-bew" / "fee-bee-o" dichotomy given in field guides. In practice, however, there should be little difficulty in identifying singing males in Minnesota, because the songs are distinct.

In Fig. 2, we show representative

**Table 1. Summary of known sites of sympatric occurrence of breeding Alder and Willow Flycatchers in Minnesota. Areas of sympatry not reported by Eckert (1980) include Anoka/Ramsey counties, and Ulen (Clay Co.). Also shown are several apparently extralimital records.**

Site	No. Singing Males		Date	Source
	Alder	Willow		
3 mi W Ulen, Clay Co. (T. 142 N, R. 45 W, SW $\frac{1}{4}$ sec. 25)	1	4	13 June 1981	RMZ
1 mi S, 2 mi W Ulen, Clay Co. (T. 142 N, R. 45 W, SW $\frac{1}{4}$ sec. 31)	4-5	3-4	9 June 1981	RMZ
Bluestem Prairie, Clay Co. (T. 139 N, R. 46 W)	4	2	22-25 June 1980	Eckert (1980)
Barnesville Wildl. Mgmt. Area, Wilkin Co. (T. 138 N, R. 45 W, SE $\frac{1}{4}$ sec. 36)	3+	3+	12 June 1981	RMZ
Anna Gronseth Prairie, Wilkin Co. (T. 134 N, R. 45 W)	4	many	20-21 June 1980	Eckert (1980)
Magnusson Wildl. Mgmt. Area, Wilkin Co. (T. 138 N, R. 44 W, sec. 7)	1	1	10 June 1981	Wells and Pfanmuller (pers. comm.)
Cedar Creek Natural History Area, Anoka Co.	several	several	1980, 1981	J. Howitz (pers. comm.)
2 mi SSW Rice Lake Anoka-Ramsey Co. line (T. 31 N, R. 23 W, sec. 36)	1	4+	2 July 1981	BAF, RMZ
Cromwell and Highland Grove Wildl. Mgmt. Areas, Clay Co. (T. 140 N, R. 44 W, sec. 1 and 22, respectively)	1(each)	0	5 June 1981	Wells and Pfanmuller (pers. comm.)
7 mi E Glenwood, Pope Co. (T. 125 N, R. 36 W, E $\frac{1}{2}$ sec. 5)	2	0 (likely)	5 July 1981	RMZ
Rice Lake National Wildl. Refuge, Aitkin Co.	0	1	3 July 1974	R. B. Janssen (pers. comm.)

sound spectrograms of songs, recorded in Minnesota, of both species. There are two types of Willow Flycatcher songs, "high" and "typical" (Stein 1963), although both sound very similar (Borror 1961). We present only a "typical fitz-bew" (Fig. 2A). The 2-noted "fitz" is audible as a single sharply rising accented syllable and the "bew" as a wheezy, descending one. The song of the Alder Flycatcher

(Fig. 2B) is 3-syllabled. The "fee" is somewhat ascending, the accented second syllable ("bee") sharply ascending, and the third syllable ("o") is descending. The "bee'o" component lasts only .15 sec, and apparently some people hear both notes while others hear only one (e.g., "beer"). In general quality, the Alder Flycatcher song is reminiscent of that of the Eastern Phoebe (*Sayornis phoebe*). Alder and

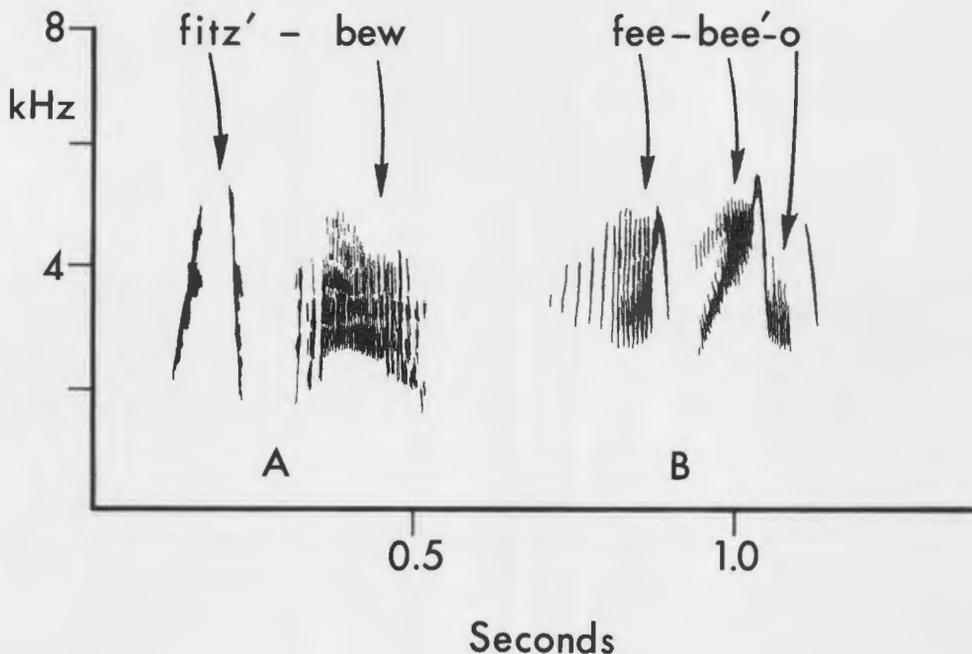


Figure 2. Pen and ink tracings of sound spectrograms of songs of the Willow Flycatcher and Alder Flycatcher. A.) "Typical fitz-bew" of a Willow Flycatcher, recorded by Dr. Nelson Barker, 18 July 1962, near Forestville, Fillmore Co., Minnesota. The "creet" described in the text did not occur in this particular recording. B.) "Fee-bee-o" song of an Alder Flycatcher, recorded by Jeb Barzen, 6 July 1981, at Floating Bog Bay, Itasca State Park, Clearwater Co., Minnesota. The slash-like note following the "o" is usually undetectable in the field (Stein 1963). These sonograms were made on a Kay Elemetrics Vibralyzer, 80-8000 Hz, wide-band setting.

Willow Flycatchers give a number of other calls that in general do not show specific differences (Stein 1963). Therefore, birds should be observed for as long as possible to insure that the individual is indeed a male giving the distinctive advertising song.

Alder and Willow Flycatchers can be heard on Kellogg and Allen's (1971) recording. The first songs are of an Alder, and the last two (plus the "creet" just preceding) are of a Willow. Although recorded in New York, these birds sound virtually identical to the many Alder and Willow Flycatchers we have heard in Minnesota.

**Habitat** — In some instances, habitat and locality can be used to aid

field identification. Willow Flycatchers generally breed in prairie regions and in more open habitats of the eastern U.S. (A.O.U. 1973). Stewart (1975) writes that they are found in "thickets or open groves of small trees and tall shrubs. Natural habitats of this type occur as scattered patches on the prairie, on lowland swales, or as margins of woodlands." This seems typical of birds observed by RMZ in western Minnesota. For example, RMZ found Willow Flycatchers in Wilkin Co. in an upland, abandoned farm lot, in young shrubby cottonwoods (*Populus deltoides*) bordering more mature cottonwoods (where several Least Flycatchers, *E. minimus*, were singing).

In contrast, Alder Flycatchers are found commonly in northern Minnesota in dense, boggy alder (*Alnus* spp.) and willow (*Salix* spp.) thickets, often near streams.

Of special interest are habitats that support both species. At the site 2 mi. W, 1 mi. S of Ulen, Clay Co., RMZ heard 4 to 5 Alder and 3 to 4 Willow Flycatchers on 9 June 1981. Alder Flycatchers were in denser and taller vegetation with a wet boggy substrate, and Willow Flycatchers were either in more open vegetation (if very wet) or drier areas (if dense vegetation). The same general situation was found by us 2 mi. S of Rice Lake, Ramsey Co., on 2 July 1981. An Alder Flycatcher was heard in the wetter, denser vegetation that more resembled northern Minnesota boreal conditions, and 4 to 5 Willow Flycatchers were heard in somewhat drier and much more open sites, reminiscent of prairie thickets. We could easily hear both species from one place. Ewert (1981) noted similar habitat differences in these species in two central Michigan counties, although he reported only a single instance of syntopy (both from within hearing distance). Observers should make careful habitat notes in order to ascertain whether the species use different microhabitats in sympatry.

We encourage observers to submit records of these species to the editor of *The Loon*, with dates, precise locations, number of singing males, time of day, and habitat notes. Records of singing males from about 10 June to the end of July constitute evidence of breeding, although the best information is that obtained during the last 2 weeks of June, when males sing persistently well into the day. In early June, some singing males may be transient. By July, males become much less vocal, and by mid-August, some birds are already moving south. Also useful are descriptions of nests of the two species. The Alder Flycatcher builds an externally ragged nest suggesting that of a bush-nesting Song

Sparrow (*Melospiza melodia*) while the Willow Flycatcher constructs a compact, neat nest reminiscent of a Yellow Warbler's (*Dendroica petechia*) (Stein 1963).

**Summary** — The Willow Flycatcher breeds in southern and western Minnesota, and the Alder Flycatcher in the remainder of the state. However, there is at least a narrow zone of sympatry in Minnesota, and we present several sites where both species occur together. Further documentation is required to clarify the extent of the breeding ranges, and whether the species use different microhabitats in areas of sympatry. Although song of the species differs, vocalizations can be confused. Alder Flycatchers in Minnesota are probably best described as singing a phoebe-like buzzy "fee-beer'" rather than "fee-bee'-o." Willow Flycatchers give a distinct, wheezy "fitz'-bew," with an accented, sharply ascending first syllable.

**Acknowledgements** — We thank James Howitz, Lee Pfanmuller, Doug Wells, and especially Robert Janssen for contributing unpublished observations. Jeb Barzen (Dept. of Entomology, Fisheries and Wildlife, University of Minnesota) made his Alder Flycatcher recordings available to us. The Willow Flycatcher song was taken from the Nelson Barker bird tape collection, Bell Museum of Natural History, courtesy of H. B. Tordoff, Director. Field work by RMZ was supported by the Museum of Vertebrate Zoology. We thank Stephen F. Bailey and Ned K. Johnson for providing comments on the manuscript.

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- <sup>2</sup>Bell Museum of Natural History, University of Minnesota, Minneapolis, Minnesota 55455

## THE M.O.U. 300 CLUB

The Wilson's Plover in Duluth last July and the Black-headed Grosbeak in Grand Marais in October were the main reasons for improvements in several lists. Following are the new totals as of December 1, 1981.

Ray Glassel .....	347	Evelyn Stanley .....	316
Bob Janssen .....	346	Gary Otnes .....	313
Kim Eckert .....	344	Oscar Johnson .....	312
Bill Pieper .....	339	Ruth Andberg .....	312
Terry Savaloja .....	338	Dick Wachtler .....	312
Paul Egeland .....	338	Wally Jiracek .....	311
Ron Huber .....	336	Gloria Wachtler .....	311
Janet Green .....	335	Bro. Theodore (deceased)..	310
Dick Ruhme .....	333	Steve Millard .....	310
Liz Campbell .....	331	Nestor Hiemenz .....	306
Bill Litkey .....	330	Doug Campbell .....	305
Jo Blanich .....	326	Henry Kyllingstad .....	305
Don Bolduc .....	325	Violet Lender .....	303
Karol Gresser .....	325	Betty Campbell .....	302
Jerry Gresser .....	318		

### THE M.O.U. 300 CLUB AND 200 COUNTY CLUB

Following is a set of rules which govern publication of Minnesota and county lists in **The Loon**. (These rules are not intended to necessarily apply to such lists kept for personal use or printed in other publications.)

- Birds which are **only heard** and **not seen** may not be placed on one's Minnesota list. Heard birds are, however, permitted on county lists.
- Any record of a bird which has been found unacceptable by the Minnesota Ornithological Records Committee (MORC) may not be placed on Minnesota or county lists.
- Birds found dead and banded birds seen before they are released are permitted on county lists. Such birds may not be placed on one's Minnesota list, however.
- Birds which probably escaped or were released from captivity and which are not fully established in the wild may not be placed on Minnesota or county lists. For example, Turkey and Bobwhite are "countable" only in extreme southeastern and southwestern Minnesota, Mute Swans are countable only when seen on or near Lake Superior, introduced Trumpeter Swans in the Twin Cities area are not countable, and the only countable Chukars occurred at Ely (none present since 1977).

Since the above rules have not previously been published and since there may be disagreement over some of them, some 300/200 Club members may have lists which are not in compliance with these rules. If this is the case, either adjust your list totals to conform with these rules or write to the Editor informing him which rules you believe should be revised.

Additions to your Minnesota list should be sent in to the Editor as they are seen; new county list totals should be submitted no later than June 1 and December 1 each year for publication in the Summer and Winter issues of **The Loon**.

## THE 200 COUNTY CLUB

Four new counties (Chicago, Cook, Itasca and Lake) were added to the growing list of represented counties. We now have lists from 38 counties — only six more and we'll have more than half of Minnesota's 87 counties reporting. Following are the totals as of December 1, 1981.

County	Observer	No. of Species	County	Observer	No. of Species
Aitkin	Terry Savaloja	255	Lyon	Paul Egeland	251
	Jo Blanich	239		Henry Kyllingstad	251
	Warren Nelson	236	Marshall	Sarah Vasse	235
	Bill Pieper	212		Shelley Steva	208
	Bob Janssen	208	Morrison	Pete Ryan	207
Anoka	Ken LaFond	257	Mower	Ron Kneeskern	224
	Bill Pieper	221		Rose Kneeskern	223
	Ruth Andberg	220		Bob Jessen	202
	Ray Glassel	203	Nicollet	John Frentz	217
Becker	Gary Otnes	214		Merrill Frydendall	206
	Marion Otnes	213		Ray Glassel	201
Blue Earth	Merrill Frydendall	211	Olmsted	Joan Fowler	228
Carver	Kathy Heidel	218		Jerry Bonkoski	221
	Bob Janssen	200		Vince Herring	217
Chisago	Ray Glassel	200		Ted Lundquist	213
Clay	Carol Falk	221		Phyllis Lundquist	213
	Laurence Falk	218		Anne Plunkett	210
Cook	Ken Hoffman	205		Joel Dunnette	210
	Molly Hoffman	204	Otter Tail	Gary Otnes	284
	Jan Green	202		Marion Otnes	273
Crow Wing	Terry Savaloja	233		Steve Millard	250
	Jo Blanich	230	Pennington	Shelley Steva	211
Dakota	Ray Glassel	245	Ramsey	Liz Campbell	235
	Joanne Dempsey	224		Bill Pieper	224
	Bob Janssen	215		Bill Litkey	222
Freeborn	Charles Flugum	212		Ray Glassel	214
Goodhue	Ray Glassel	230		John Fitzpatrick	209
	Bob Janssen	224	Rice	Orwin Rustad	222
	Bill Pieper	221		Ray Glassel	205
	Bill Litkey	206	Rock	Kim Eckert	240
Grant	Kim Eckert	214	St. Louis	Jan Green	290
Hennepin	Bob Janssen	274		Kim Eckert	286
	Alvina Joul	267		Bob Janssen	261
	Ray Glassel	265		Paul Egeland	260
	Oscar Johnson	261		Ray Glassel	250
	Violet Lender	254		Bill Pieper	243
	Bill Pieper	251		Mike Hendrickson	243
	Don Bolduc	234		Bill Litkey	212
	Charles Horn	214	Scott	Ray Glassel	217
Houston	Fred Leshner	215	Sibley	Bob Janssen	201
Itasca	Tim Lamey	202		Ray Glassel	200
Jackson	Ingeborg Hodnefield	202	Stearns	Nestor Hiemenz	267
Lac Qui Parle	Micki Buer	231		Kim Eckert	236
	Chuck Buer	223	Wabasha	Ray Glassel	205
	Marion Otnes	213	Wadena	Dick Oehlenschlager	243
	Gary Otnes	212	Washington	Ray Glassel	218
	Bob Janssen	207		Bill Litkey	217
	Ray Glassel	203		Liz Campbell	210
Lake	Jan Green	215	Yellow Medicine	Gary Otnes	220
				Marion Otnes	220

# SUCCESSFUL RED-BREASTED NUTHATCH NEST IN RAMSEY COUNTY

Jennifer Wann, Roberta Sorenson, Kevin Winker and Ted Hoffman

Throughout the year, Red-breasted Nuthatches are widely distributed in the northeastern and north central regions of Minnesota. The birds are numerous in the Hennepin, Ramsey and Washington county areas during migration and winter (Green and Janssen 1975), but they normally nest in the northern coniferous regions of the state. They have been known to breed as far south as the Twin Cities but this is a rare occurrence. The last recorded nest in Ramsey County was found in 1958 (R. Janssen, personal communication).

On April 28, 1981, a male and female Red-breasted Nuthatch were seen near the Rosehill Nursery in St. Paul. The nursery area was part of a study site for an Ornithology class at the University of Minnesota. The area of the plot was 2.4 hectares and was bounded along the south edge by houses. The five hectare woodlot in which the site was located consists of a mixture of 10-25m high deciduous trees, primarily Oak, Cottonwood and Aspen, with a fairly dense undergrowth of Elderberry, Buckthorn and Honeysuckle. There is a shelter belt of young Red Pines in the northwestern edge of the study site, but otherwise there are only a few scattered conifers in the woodlot and residential areas.

Both sexes participated in excavating a previously existing hole in a dead Elm tree (12.5cm in diameter) from April 24 to May 4. The birds vocalized to each other when one was



excavating and the other was sitting in a nearby tree. The note was the characteristic tin horn "ank" call note. The birds called to each other while

they switched excavation duties also. The nest hole was 3m from the ground, 4.5cm in diameter, and 1.8cm deep. The tree blew down in July and the nest is preserved at the Bell Museum of Natural History.

Red-breasted Nuthatches normally smear pitch around the entrance to the nest (Bent 1948). There was no pitch around the nest hole on May 14 but by June 8, pitch from a conifer rimmed the lower portion of the entrance. There is also pitch lining the crack for 7cm below the hole. According to University of Minnesota Forestry Extension agents, it is highly likely that the pitch is from a White Pine. A number of White Pines are on the Luther Northwestern Seminary grounds which are about .4km from the woodlot.

Both sexes carried materials to line the nest between May 5 and May 8. We estimated the first egg to have been laid on May 10, based on the behavior of the adults and assumption of a clutch size of five eggs. It was not possible to check the contents of the nest because of the nest height, the size of the tree and its position on a hill.

The male began to feed the female at the nest entrance on May 14. He flew off the woodlot toward the houses to forage. There are coniferous trees in the residential area but it is not known if he foraged in them. The female had most likely begun to incubate the eggs at that time. She responded to the feedings with a continuous and high pitched begging call.

We estimated the eggs to have hatched around May 26 and the chicks were tended by both parents. The chicks peeped almost continuously in-between feedings. When Blue Jays were in the nest area twice in a 30 minute observation period, the Nuthatches did not return to the nest to feed the young. Great Crested Flycatchers attempted to establish a nest in a nearby tree trunk while the Nuthatches were feeding their young. The Flycatcher activity did not stop the parents from entering the nest.

One chick was at the entrance to the nest on June 16. On June 20, one chick was flapping its wings at the entrance. A subsequent check on the nest on June 23, resulted in no sign of activity of parents or young. Based on the two earlier observations of the chicks at the nest entrance, we believe the young fledged successfully.

In summary, the Red-breasted Nuthatches utilized an existing cavity most likely that of a Downy Woodpecker, in an Elm tree for their nest. There were no coniferous trees within 25 meters of the nest although there were scattered conifers in the woodlot and residential area. The birds foraged in the residential area, but it is not known if they foraged in the coniferous trees. This is apparently the first known successful Red-breasted Nuthatch nest in Ramsey County in 23 years. We would like to thank Bruce Fall of the Bell Museum of Natural History for his help with this article. 1301 Willow Circle, Roseville, MN 55113.

#### PROCEEDINGS OF SYMPOSIUM ON ESTIMATING NUMBERS OF TERRESTRIAL BIRDS AVAILABLE

In October 1981 the proceedings of the Symposium "Estimating Numbers of Terrestrial Birds," held October 26-31, 1980, was published by the Cooper Ornithological Society as Number 6 in the series, **Studies in Avian Biology**. This 630-page volume features more than 100 original contributions of participants from throughout the world. Included are a Readers' Guide, Introductions and Summaries to each section, and a comprehensive bibliography. The volume, edited by C. John Ralph and J. Michael Scott, can be purchased for US \$20.00 (postpaid) from Allen Press, Inc., P.O. Box 368, Lawrence, Kansas 66044. Make checks payable to "Cooper Ornithological Society."



# NOTES OF INTEREST

**ARCTIC LOON IN JACKSON COUNTY** — Green and Janssen (Minnesota Birds, 1975) list only seven sightings of Arctic Loons (*Gavia arctica*) in Minnesota and all were seen in the Duluth-Lake Superior area. Few Arctic Loons have been sighted in the state since that time and we are aware of no reports of this species from southern Minnesota. On 25 June, 1981 while trapping and banding Canada Geese for the Minnesota Department of Natural Resources at the Sioux Forks Waterfowl Production Area eight miles south of Lakefield in Jackson County, we noticed a loon swimming in open water about 100 meters away. We observed the bird in full sunlight with 7X binoculars and 25X spotting scopes for several minutes. It was noticeably smaller than a Common Loon, the crown and back of the neck were light gray, the back was dark with a distinct pattern of white spots, the throat was black, and there were vertical black stripes on the sides of the neck. Other observers included Donald Schultz, Chris Loggers, Richard Erpelding, and Chad Veitenheimer and all were in agreement that the bird we observed was an Arctic Loon. The loon remained on the 60-70 acre deep-water marsh during our activities and was still present when we departed two hours later. **Stephen J. Maxson and Michael C. Zicus, Wetland Wildlife Populations and Research Group, Minnesota Department of Natural Resources, 102 23rd Street, Bemidji, Minnesota 56601.**

**SUMMER SIGHTING OF A PEREGRINE FALCON IN NOBLES COUNTY** — Although Peregrine Falcons (*Falco peregrinus*) bred in Minnesota until the 1960's (Green and Janssen, Minnesota Birds, 1975), they are seldom observed in the state today during the summer months. On 25 June, 1981 I was engaged in trapping and banding Canada Geese for the Minnesota Department of Natural Resources at Ocheda Lake, three miles southeast of Worthington in Nobles County. At about 0900 we began to drive the geese toward the trap site with canoes. I was paddling a canoe 75 meters from shore when I noticed a large falcon flying low over a pasture about 150 meters away. The light was poor from that angle and I could make out little more than a silhouette. The bird had the long pointed wings, narrow tail, and strong direct flight typical of a falcon but was too large to be a Merlin or Kestrel. Fortunately, the falcon circled around behind us and a minute later flew by almost directly overhead at a height of about 30 meters. Using 6X binoculars I could clearly see the distinct dark cap and

facial mask, and distinct barring on the breast. The bird did not have black axillars thus eliminating the Prairie Falcon. Other observers, though without benefit of binoculars, were Chris Loggers and Chad Veitenheimer. The Peregrine continued flying to the opposite end of the lake where it briefly harassed a Great Blue Heron in flight before disappearing into a woodlot. **Stephen J. Maxson, Wetland Wildlife Populations and Research Group, Minnesota Department of Natural Resources, 102 23rd St., Bemidji, Minnesota 56601.**

**SNOWY PLOVER AT BIG STONE NWR** — The Snowy Plover, portrayed in the attached photos, was observed on Big Stone NWR on Friday, April 24, 1981. This Snowy was first seen at a distance of 50 feet through Bushnell 8 x 35 binoculars. Since the identity of the bird was unknown at first, I then used a Bushnell spacemaster spotting scope (20-45x) to get a better look. While observing this bird for 3-4 minutes through the spotting scope, I checked my field guide, "Birds of North America" to determine what species this was. I matched three black spots near the head region, the absence of a neck band, and black legs, and finally I decided this bird





couldn't be a Piping Plover but a Snowy Plover. At this point, I used my 35mm Yashica camera, a 2x converter and a 300mm lens (f 4.0) to bag this critter. Five photographs were taken. Photo A was taken at 30' and photo B at 20' as I sat in the pickup truck. Having captured this plover on film, I left my pickup parked at the bird banding site, and walked the shoreline to see what else I might find. One additional Snowy was observed along with a menagerie of shorebirds that were using the mud flats that day. **Robert B. Berber, Assistant Refuge Manager, Big Stone NWR, 25 NW 2nd St., Ortonville, MN 56278.**

**FIRST MINNESOTA NESTING RECORD OF NORTHERN THREE-TOED WOODPECKER** — Although the Northern Three-toed Woodpecker has occasionally been found in summer in the state, it is exceptionally rare during that season and no nesting records exist (there is, however, a record in Roberts' *The Birds of Minnesota* of a juvenile with two adults at Itasca State Park in July 1902). But on June 26, 1981, an active Northern Three-toed Woodpecker nest was found in Cook County along Superior National Forest Road 152 approximately three miles west of the Gunflint Trail (T63N, R1W, Section 1). I was leading a Wings birding tour when one of the group, Jocelyn Baker of Rapid City, S.D., spotted what she thought was a Black-backed Three-toed. As she pointed the bird out to the rest of us, I was surprised to see a male three-toed woodpecker with a "ladder" back quietly



Northern Three-toed Woodpecker at nest hole, June 1981, Cook County, Minn.

Photo by Warren Nelson

working on a black spruce only a few yards away. As I called out Northern Three-toed, I noticed a cavity in a nearby dead black spruce and was even more surprised to see the bird fly to this tree with food in his bill and enter the hole. At the same time soft chattering could be heard inside the cavity indicating the presence of young birds. During the next hour or so we watched both adults come separately to the nest with food and enter the cavity completely, sometimes remaining inside for several minutes at a time. A couple times we heard the adults give a "kik" call note, which is distinctly higher pitched and softer than the distinctive "krik" note of the Black-backed (this note of the Northern almost sounds like a Downy). Be-

sides the "ladder" back and different call, the Northern also is noticeably smaller than the Black-backed, and the male has a less extensive, more irregularly shaped yellow cap. The location of the nest tree was in a black spruce bog about 25 feet from the road. The tree was about 16 feet high and about eight inches in diameter; the entrance hole was located about 13 feet up and was about 2½ inches in diameter. **Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804.**

**Editor's Note:** Ken and Molly Hoffman checked the nest hole on July 17, 1981 and reported that there was no activity or response to scratching on the nest tree.

#### **RUSTY BLACKBIRD FAMILY GROUP AT SWAMP LAKE, COOK COUNTY**

— At noon on June 29, 1981, while canoeing on Swamp Lake (T64N, R1W), our attention was drawn to several noisy blackbirds actively moving in the trees and bushes at the lake edge. The area was an open tamarack - black spruce bog with thick sweet gale, alder, and laborador tea bushes at the water's edge. We observed the blackbirds at close range from the canoe and later from the bog mat for about 30 minutes. Two adult Rusty Blackbirds, male and female, and three juvenile birds were seen. The adult male remained visible in the taller bushes and trees while the young and the adult female stayed low most of the time. We were, however, able to observe the young birds "begging" and the adult female feeding one of her "begging" progeny. Both adults were in spring plumage. The three brown-gray colored juveniles were adult sized with long tails and dark eyes. They appeared clumsy in moving from branch to branch but flew well. As Swamp Lake is about five miles south of the Canadian border and the young birds were already quite mobile, it is impossible to be certain that they were fledged in Minnesota. We visited the area again on July 7 and were unable to locate the group again. **Ken and Molly Hoffman, Gunflint Trail, Box 58, Grand Marais, MN 55604.**

**SUMMER Tanager IN CROW WING COUNTY** — On June 18, 1981, at approximately 5:00 P.M., my husband, Steve, and I and Bob Orenstein of Philadelphia, PA, were about to have dinner and watching the feeders outside our windows and the lake beyond when a large reddish bird flew into the back side of a birch tree about 30 feet from the house toward the lake. Since Purple Finches had been at the feeders, my first thought was of a male Purple Finch but my impression was that the color was too red and the bird too large. I grabbed my binoculars and ran out the door to look for the bird. It was sitting on a dead branch with its back toward me. I thought "Red Crossbill" but the color was not right for this either, plus the wings were almost the same color as the body. When the bird turned its head and I had a full view of the large all red bird and could see the head and the long, large bill with noticeably curved upper mandible, I called excitedly "Summer Tanager!" Steve and Bob were behind me by this time and also got a full view of the bird before it flew into the brush at the east side of the yard. We saw the bird for about 30 seconds. The habitat for this bird is listed as southern oak-pine woods. Our yard has mixed oak, birch, maple, and other deciduous trees with many tall Norway pines, which may have attracted it. **Jo Blanich, P.O. Box 96, Crosby, MN 56441.**

**LITTLE BLUE HERON NESTS AT LAKE JOHANNA** — I am enclosing photos of a Little Blue Heron nest I found at Lake Johanna, Pope County on June 6, 1981. The nest contained four eggs and was located eight feet up in a small box elder tree. **Nestor Hiemenz, 705 18th Ave. S., St. Cloud, MN 56301.**



**Adult Little Blue Heron, Lake Johanna, Pope Co., June, 1981**



**Little Blue Heron Nest, Lake Johanna, Pope County, June, 1981**

**THE ALDER FLYCATCHER AS A BREEDING SPECIES IN NORTHWESTERN SHERBURNE COUNTY** — In 1967 I established a 20 acre breeding bird study area in northwestern Sherburne County, approximately one mile NE of the St. Cloud Reformatory (NE¼ of SE¼ Section 5 T35N R30W). At that time this area was largely lowland meadow habitat having been hayed and/or burned frequently since the area was first settled. However, portions of the study area were gradually being converted to willows which were a foot or so in height at this time. No flycatchers were noted in 1967 nor during the 1968 survey. When next censused in 1973 willows had grown to a height of 5'-7" and the "fee-bee-o" song of the Alder Flycatcher was heard for the first time. Two pairs were located on the study area that year. This species has been present on all subsequent censuses: one pair in 1974, 2½ pairs in 1978 and 4¼ pairs in 1980. The area was not censused in 1981 but an adjacent "older" successional area consisting of some lowland prairie, willows and clones of aspen up to 20 years of age was surveyed for the second time since 1974. No Alder Flycatchers have been found in this "aspen parkland" habitat. Breeding bird densities on this 20 acre study have ranged from a calculated 180 to 240 pairs per 100 acres. Fifteen breeding species have been found here, including six species more common than the Alder Flycatcher: Song and Clay-colored Sparrows, Common Yellowthroat, Yellow Warbler, Red-winged Blackbird and Short-billed Marsh Wren. The Common Snipe, American Woodcock and Ring-necked Pheasant also breed here. Sandhill Cranes utilize adjacent habitat. The present vegetation on this 20 acre study area is mainly sedge meadow and willows. A small portion of the sedge habitat is in wet channels 2"-6" deep. There also are three small areas of drier upland "blue-stem" prairie. Scattered willows, chiefly Bebb's willow have invaded much of the meadow habitat but open areas still predominate. Perhaps 30% of the acreage consists of willows 4"-8" in height. **Edmund A. Hibbard, Rt. #1, St. Cloud, MN 56301.**

**KING RAIL IN ST. PAUL** — The Wildlife Rehabilitation Clinic is run by students in the College of Veterinary Medicine in St. Paul. The clinic accepts all non-raptor cases referred to the Raptor Rehabilitation Clinic. Carolyn Spolar, a worker at the Wildlife Clinic and a classmate of mine, told me that a King Rail had been brought in to the clinic. I went and confirmed that the bird was in deed a King Rail. The bird had rusty cheeks and was definitely larger than nine inches. The bird did not like to be handled and was wrapped in a towel during treatment. We were able to get one accurate measurement, the length of the bill. In the **Birds of Canada**, Godfrey lists the lengths of the male King and Virginia Rails. The King Rail's bill is normally 58 - 65.5 mm in length and the Virginia Rail's bill is normally 35 - 42 mm in length. The King Rail's bill was 62 mm in length. The bird was found May 15, 1981 in the **parking lot of the bank** located at Raymond and University Ave. in St. Paul. The bird was brought in the same day and found to have broken both of its legs. The legs were splinted. Carolyn Spolar was responsible for the care of the bird during its captivity. The bird was fed a diet of nightcrawlers and minnows. The bird put on weight until the first week in June when the bird suddenly started losing weight. Carolyn and I determined that the rail must be released as soon as possible. I called the headquarters of the Minnesota River Valley NWR in Bloomington to obtain their permission to release the bird on the land they now own. Permission was granted and Tex Hawkins was present at

the release and took photographs of the rail. Prior to release the legs were unbandaged. The bird seemed to have healed well since it was able to put all of its weight on its feet in a normal posture. The bird was released near the Bass Ponds in Bloomington. This area is now apart of the refuge and the extensive marshes of Long Meadow Lake were adjacent for the King Rail to move to. The bird was released on June 10, 1981. It is my



King Rail, before release — Photo by Mark Wright

guess that the rail broke its legs by hitting a power line or antenna since the breaks in both legs were at the same level. I checked the previous issues of **The Loon** and found the last sighting of a King Rail was 6-2-77 in Lyon Co. The most interesting question posed by the finding of the King Rail in St. Paul is: Was a male King Rail heading to north of St. Paul? Two possibilities immediately come to mind — Carlos Avery and Cedar Creek, but could there be someplace currently being overlooked? **Mark Wright, 11009 Territorial Dr., Burnsville, MN 55337.**

**JULY RECORD OF A WHITE-CROWNED SPARROW** — On July 30, 1981 Bob Janssen and I were on a county-listing trip through Pipestone Co., and late in the morning we stopped at Pipestone National Monument to check the area for migrants. Very few birds of interest were around, but as I routinely “pished” near a thicket along a rock outcropping just north of the wooded stream an adult White-crowned Sparrow came into view. It sat motionless at eye level at the edge of the thicket about 50 feet away for about two minutes, so that its black and white crown stripes, pink bill and uniform gray throat, breast and belly were clearly visible. After I called Bob over to the spot, he was able to see the bird briefly before it disap-

peared back into the thicket, and we were not able to find it again. While there is no doubt about the identity of the bird, there is considerable question about what it was doing here. This species nests no nearer to Minnesota than extreme northern Ontario and Manitoba near Hudson Bay. **Minnesota Birds** lists the latest spring migration dates at May 30 for southern Minnesota and June 7-13 for northern Minnesota, and gives September 3 as the earliest date for northern Minnesota and September 12 as the earliest for the south. Therefore, it is difficult if not impossible to conjecture whether this was an extraordinarily late spring migrant, an extremely early fall migrant, or an obviously unprecedented bird summering at an unlikely southwestern Minnesota location. **Kim Eckert, 9735 North Shore Dr., Duluth, MN 55804.**

**BURROWING OWLS IN STEVENS COUNTY** — I first observed the birds on 29 April 1981 when both birds seemed to be occupying a Richardsons ground squirrel burrow. The two birds were seen daily until about 20 May. For the next six weeks until 1 July two owls were seen only rarely. During this time the vegetation grew up around the burrow obscuring any activity at the burrow. For this reason I am uncertain when the young owl initially came out of the burrow. During July, one and sometimes two owls were seen near the burrow or in the surrounding field. I did not feel that more detailed information was worth disturbing the owls or clearing away the vegetation. On 16 July I saw three owls in the field. All three birds could fly but one of the birds was less wary than the other two. This bird was not as spotted as the others and was lighter on the underside. The owls were present, but no longer occupied the burrow, until 27 July. I spent several hours at the pasture that evening and no owls were observed.



I am enclosing the only recognizable photo I was able to get of the owls. This is not the burrow where nesting occurred but one that was used after all three owls were flying. I have some pellet samples taken on 16 July and 27 July. These are the only dates I actually went into the pasture. I was perhaps overly cautious but I did not want to disturb the owls in any way. I am hopeful they will return in 1982. **Daniel J. Orr, Eastview Apts., #201, Hancock, MN 56244.**

**BLUE-WINGED WARBLERS NESTING IN WOLSFELD WOODS** — On June 25, 1981 I was monitoring an area on the edge of the Wolsfeld Woods Scientific and Natural Area, Hennepin County for evidence of the Blue-winged Warbler I had seen and heard throughout the spring when I saw a male Blue-wing with food in its beak. As I watched, it flew into a poison ivy/prickly ash thicket in an adjacent meadow. I moved closer to where I had seen him disappear and encountered a female Blue-wing, also carrying food. Despite my presence, she also flew to the same spot as the male had earlier. After watching both birds for 15-20 minutes I felt certain I knew where the nest was. After each had made one more trip to the nest site I went to investigate and pulling back a poison ivy leaf found a ready-to-



**Blue-winged Warbler — adults at nest — Wolsfeld Wood, Hennepin County.**

**Photo by Jerry Sivets**

fledge young Blue-winged Warbler. The fact that I saw the adults carrying food to other spots nearby makes me think that this one was the last to leave the nest. My success at this site caused me to go to another meadow, within Wolsfeld, where again I was able to locate an active Blue-winged's nest. This one was not nearly as advanced, the young being several days from fledging. Throughout the first weeks of July I encountered several families of these warblers in the meadows, forest edges and bogs of Wolsfeld Woods. Due to the fact that during one day I identified four separate family groups, I feel certain there were at least four separate nest sites within the woods. Such numbers indicate either a more general distribution of these birds in this area than is thought or, an eruption of the species into favorable habitat with a disappearance of the birds as the meadows mature into forest land. **Jerry A. Sivets, 468 Virginia Ave., Long Lake, MN 55356.**

## PRAIRIE CHICKEN INVENTORY 1981

### SUMMARY OF 1977 - 1981

#### MINNESOTA PRAIRIE CHICKEN INVENTORY DATA BY COUNTY

County	No. of Cocks Observed		( ) - No. of Booming Grounds		
	1977	1978	1979	1980	1981
Becker	54 ( 5)	26 ( 4)	102 ( 9)	156 (16)	159 (16)
Cass	13 ( 1)	9 ( 1)	14 ( 2)*	17 ( 6)*	63 (15)*
Chippewa	— —	8 ( 1)	2 ( 1)	2 ( 1)	2 ( 1)
Clay	197 (14)	261 (21)	205 (17)*	186 (17)*	196 (16)*
Hubbard	— —	— —	— —	— —	4 ( 1)
Lac Qui Parle	— —	1 ( 1)	— —	— —	— —
Mahnomen	107 ( 8)	71 ( 4)	81 ( 7)	203 (21)	223 (20)
Marshall	— —	— —	— —	— —	3 ( 1)
Norman	136 (11)	130 ( 9)	213 (13)	230 ( 9)	210 ( 9)
Otter Tail	8 ( 2)	8 ( 2)	19 ( 5)	13 ( 2)	9 ( 2)
Pennington	— —	— —	8 ( 1)	— —	2 ( 1)
Polk	141 (13)	140 (16)	192 (18)*	269 (27)	254 (26)
Red Lake	3 ( 1)	7 ( 1)	8 ( 1)	8 ( 1)	19 ( 2)
Wadena	— —	? ( ?)*	27 ( 3)*	10 ( 3)	60 (12)*
Wilkin	216 (12)	180 (14)	77 ( 4)	164 (14)	206 (23)*
Totals	875 (67)	841 (74)	948 (81)	1258 (117)	1410 (144)

\*These figures include only booming grounds on which counts were made. In a number of counties booming grounds were located by sound but counts were not made. They are not included in this summary.

#### AVERAGE NUMBER OF PRAIRIE CHICKENS OBSERVED PER BOOMING GROUND

1974	. . . . .	11.46
1975	. . . . .	10.55
1976	. . . . .	10.71
1977	. . . . .	13.06
1978	. . . . .	11.36
1979	. . . . .	11.70
1980	. . . . .	10.75
1981	. . . . .	9.79

**Comments:** The Prairie Chicken count continues higher. Two new counties were added to the list this year. Marshall County features chickens on Agassiz National Wildlife Refuge. Jim Mattson found these. We have been aware of chickens in Hubbard County before but inadvertently did not list them. Good counts were made on numerous grounds in Cass and Wadena Counties by Tod Tonsager, a U of M - Crookston student supported financially by the Prairie Chicken Society. A dry summer in 1980 and extremely mild winter contributed to good survival for the spring 1981 counts. **Terry Wolfe, 706 Pine St., Crookston, MN 56716.**

**NOTES ON WINTER REDPOLL MOVEMENTS** — Beginning the middle of December, 1980 and continuing through February, 1981, a flock of Common Redpolls estimated conservatively at 300+ members remained around and about our farmsite, near Fergus Falls, Ottertail County. During the time period, my wife Marion and I observed their movements while success-

fully netting and/or banding 62 individuals including two Hoary Redpolls. Also during the observation and banding period we recaptured 14 of the previously banded birds. Of interest was the fact that the large flock remained within a ½ mile radius of the farmsite, feeding among the gravel road ditch weeds. Then, sporadically, small groups of 12 - 30 birds would separate themselves from the "parent" flock, dispersing for the most part, to our 10 acre wooded and weedy hillside banding area. For a maximum of a little over three hours the satellite groups moved randomly throughout the site, then, as though upon a pre-arranged biological signal, the groups would abruptly fly from the area, regrouping into the parent flock. For approximately 2½ months the birds practiced this habit before finally disappearing the last week in February. **Gary L. Otnes, Route 1, Fergus Falls, MN 56537.**

**ARCTIC LOON ON LAKE SUPERIOR, ST. LOUIS COUNTY** — On the M.O.U. Hawk Count weekend there is always the hope that with many birders around something unusual will be found. On September 12, 1981 that expectation proved correct for the field trip that I led up the North Shore from Lester River to Stoney Point. It was almost a bust for even moderately interesting birds with only gulls and a few mergansers found on Lake Superior. However, at the Talmadge River I spotted a loon swimming 300 yards off shore. Unfortunately it was in a part of the lake where the glare from the sun was severe. I pointed it out to those around me, calling it a winter plumaged Common Loon, but wondering while I said this why I couldn't see much in the way of a bill even if the sun's angle was poor. The loon came towards shore and as it approached I could see that the apparent lack of a bill was because the bill was so thin. Someone else thought he saw a band under the chin and at that point I was fairly sure it was an Arctic Loon. We chased after it since it had begun to feed along the shore to the east. When we came around a clump of evergreens, we found it surfacing right in front of us, less than 100 feet from shore. At that close range the bill, very small and thin for a loon, was quite obvious, as was the diagnostic dark chin strap separating the white throat from the white foreneck. The chin mark was wider than in any bird, photo or sketch of this species that I have seen which showed this characteristic, although not all Arctic Loons display this feature. Everyone on the field trip was able to see the Arctic Loon which was also discovered the next day near the Lakewood Pumping Station by Shirley Bolduc. It was also seen by the participants of a second North Shore field trip. The bird was very obliging and showed all the field marks that separate this species from the very similar winter plumaged Common Loon. These were: 1) very short, thin bill for a loon; 2) very noticeable chin strap; 3) rounded head profile without the brow angle of a Common Loon; 4) good contrast between lighter (gray-brown) nape and darker (dark brown) back — on the Common Loon the contrast is reversed with the nape darker than the back; 5) diving style of arching head and neck back a bit, then jumping forward — the Common Loon just slithers forward and under. **Janet C. Green, 10550 Old North Shore Rd., Duluth, MN 55804.**

**UNUSUAL NEST SITE, SHORT-EARED OWL** — On May 30, 1981, my wife, Marion and I were exploring a stretch of the Ottertail River approximately three miles to the east of the city of Breckenridge, Wilkin County. Along a curved portion of the river an oxbow was in the slow process of

forming. The banks in this particular area were eroded free of vegetation, sloping upwards about 12 feet. Approximately eight feet up the bank from the water's surface was a den-like excavation, probably dug out or widened by a fox or woodchuck. At the mouth of the den sat three downy young Short-eared Owls. Apparently the parent owls had chosen a safe and rather unique nesting site, for it was quite secluded and inaccessible. The downy young sat on a dirt ledge created by the excavation, preening. At length they retired inside the den. **Gary and Marion Otnes, Route 1, Fergus Falls, MN 56537.**

#### **BIRD BANDING NOTES - FIVE YEAR PERIOD - OTTERTAIL COUNTY MIGRATORY RETURNEES:**

In *American Birds*, Volume 35, Number 2, March 1981, page 231, a short article appeared regarding the color banding of American Golden Plovers in Hawaii with the subsequent return to the same area later in the same year by many of the color marked birds. The observation was made that the plovers had journeyed to the Arctic tundra, then returned to the area within which they were banded. Whether the "Round Robin" migration is over water or land, it none-the-less is awe inspiring — and a very common occurrence, as banders are well aware. At our 10 acre banding site near Fergus Falls, Ottertail County, we have confirmed that if the environment at the nesting site remains acceptable and the individual bird survives migration, it will frequently return not only to the same state, county and township, but to the 10 acre area previously nested in.

**Pair Bonding:** With respect to pair bonding relationships, we have had a banded male and female Eastern Phoebe return to the area during the summers of 1979-80-81, building a nest and rearing broods, one in '79, one in '80, and two in '81. Additionally, a pairbonded House Sparrow nested in 1980 and '81, rearing three broods per season.

**Migratory Fluctuations:** From year to year and even from spring to fall seasons, we have noted random marked fluctuations in species numbers at our study area. **Lincoln's Sparrow:** From 1976 to 1980 banded members of this species remained static; the spring migration of 1981, however, demonstrated a 91% reduction in birds netted, when compared to previous year's spring averages. However, the fall, 1981 season demonstrated a three fold increase over the past years fall averages. One can but speculate on the reason(s) why this occurred. **Ovenbird:** Normally only a few numbers of this species are netted or banded during each May. The month of May, 1981, varied tremendously from the norm, with birds exceedingly common. Furthermore, like the Lincoln's Sparrow, the Ovenbird normally hurries through the area, rarely being recaptured. During subject time period (May 1981) however, many were renetted up to two days after initial banding at the study area. **Clay-colored, White-throated and White-crowned Sparrows:** A definite decline occurred during the Spring of 1981 banding season in the subject area. Specifically no White-crowned Sparrows were netted during the fall season, while a few juvenile White-crowns were captured, still it was over 80% less than previous fall nettings. **Willow-Alder Flycatcher:** The spring of 1978 brought tremendous waves of this species into the study area; at times 30 birds were netted per day, with several recaptures. Then a decline in numbers occurred until May, 1981. At that time the migratory population rebounded back to the 1978 levels.

While uncertainty over the reasons for migratory fluctuations exists, experience seems to dictate that distress over bird population fall-offs is for

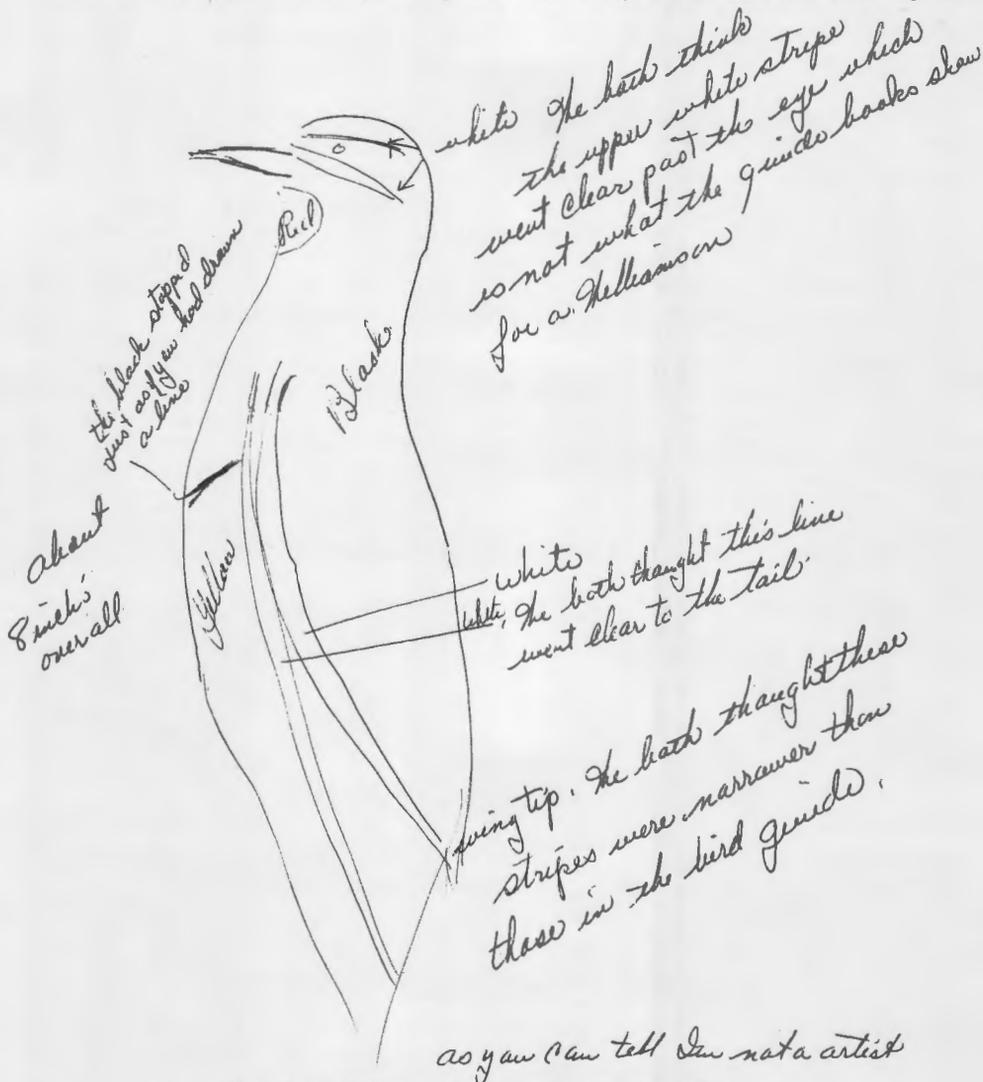
the most part unwarranted, i.e., excessive worry over "Blue Lists," etc. Birds, among others, can be accurate barometers of environmental change or damage, yet it surely seems that they decline — and rebound, in local areas for reasons solely their own and for the most part for reasons unknown to the local observer. **Gary and Marion Otnes, Route 1, Fergus Falls, MN 56537.**

**LARGE NUMBERS OF GREAT EGRETS IN AITKIN COUNTY** — On August 23, 1981, I was told by a friend that there were two Great Egrets on a rice paddy near Gun Lake which is located about 14 miles northwest of Aitkin. Due to weather conditions, it was two days before Steve and Jo Blanich and myself got a chance to check it out. It took quite a bit of driving on very muddy roads but we did finally find the two egrets. Two days later, I was informed that there were now five egrets on the paddies. The numbers continued to increase over the next three weeks. There were nine on September 3, eleven on September 9, and 14 the next day. The largest flocks showed up on September 11. Nineteen egrets were counted on this rice paddy that morning and an additional 25 birds were reported on another paddy about three miles away at the same time. Four days later, the last of the egrets left the area probably due to the increase in hunting near there. It is not unusual to see two or three egrets during fall migration but the total of 44 on one day is far and away the most that I have ever heard to be reported in this part of the state. **Warren Nelson, 603 2nd St. NW, Aitkin, MN 56431.**

**PROBABLE NESTING OF YELLOW-CROWNED NIGHT HERON IN AITKIN COUNTY** — On August 27, 1981, I was informed that there was a family of Yellow-crowned Night Herons on the Hubert Jacobson rice paddies located about 11 miles northwest of Aitkin. The next day I drove to check it out. It took about half an hour before we finally found one of the young birds. I made a positive identification of the young heron by using both the Robbins and Peterson field guides. Further questioning about when they had first shown up on the paddy turned up that the adult birds had been seen there almost every day since the end of May and usually roosted in or near the same group of trees. In the first part of August, two young birds were first seen along with the two adult herons. The adult birds were seen and positively identified by several people and were photographed by Hulda Lind who had first shown me where they were. The last report that I received of the herons being seen was on September 4. Even though there was no actual nest found, the fact that the adult pair were so consistently seen during nesting season and to later show up with young has to make me believe they did indeed nest in the area. **Warren Nelson, 603 2nd St. NW, Aitkin, MN 56431.**

**MINNESOTA'S SECOND WILLIAMSON'S SAPSUCKER** — May 25, 1981 was a clear bright day. At about 3:30 P.M. Perry and I saw a Williamson's Sapsucker in a partially dead Chinese Elm tree in our yard. We observed the bird for approximately 25 minutes at distances of 15 to 20 feet. Our first notice of the bird was its very different call, a sharp "chee-rup." My next thought was how black - black with white the bird was. There were definitely two white stripes on the head, one above the eye and one below, the upper stripe went all the way above the eye — the white stripes were

narrow. There was a narrow white strip down the wing that went almost to the wing tip. At first we didn't see the red under the bill but later we saw it, not very large, about the size of a 25¢ piece. Also the very black breast really surprised me, but the lower part of the underbody was bright yellow. There was no red on top of the head as a Yellow-bellied Sapsucker has and no black and spotting was noted on the back. The bird was feeding on the tree trunk right on our front lawn. After watching, studying and trying to figure out what it was, we went and got the bird book (Robbins - "Birds of North America"). Perry decided to get the camera and try to



Sketch of Williamson's Sapsucker by Opal Fitch.

get a picture as the bird did not seem to be bothered by us. But it flew off across the field and we never saw it again. We could hardly imagine this was a Williamson's Sapsucker but it checked very closely with the

book. It was very different from any of the other woodpeckers we have seen in the area. **Perry Fitch, Opal Fitch, Rt. 4, Box 219, Pickwick Valley, Winona, MN 55987.**

**Editor's Note:** The only other record of a Williamson's Sapsucker in Minnesota is of a single bird seen on April 22, 1972 at Worthington, Nobles County (**The Loon** 44:52-53). The above most interesting record was thoroughly investigated and analyzed by the Minnesota Ornithological Records Committee. After receiving the initial information on the observation, I requested additional information and received excellent details from Mrs. Fitch, including the sketch reproduced here. On the second vote the Committee voted unanimously to accept the record.

**A PROBLEM OF IDENTIFICATION** — On Sunday, October 25, 1981, Ray Glassel, Liz Campbell, Paul Egeland and I were on our way to Grand Marais to look for the Black-headed Grosbeak that had been seen there during the preceding week. As we were proceeding towards Grand Marais on Highway 61 at milepost 343 just beyond Castle Danger in Lake Co., Paul spotted a bird on the highway which appeared to be a shorebird. A quick turn-around just beyond the bird brought us back to where the bird was. There was some open water in the ditch along with some snow on the side of the road. We were within 15 feet of it and at first thought it was a Pectoral Sandpiper, but we all quickly noted something different about the bird. We thought it might be a Sharp-tailed Sandpiper. I quickly took notes on the bird while the others watched from close range. The reasons we thought we might be looking at a Sharp-tailed Sandpiper was the distinct rusty, well defined cap, eye-line and buffy breast with a lack of a sharp cut-off. We had the Robbins and Peterson Field Guides along but unfortunately not an article from "British Birds" (73:333-345 Aug. 1980) on the identification of Sharp-tailed Sandpipers. After watching the bird for 20 minutes we drove





Immature Pectoral Sandpiper, October 25, 1981, Lake Co.

Photos by Martha Curtis Green

to Beaver Bay and called Jan Green. She and her daughter Martha drove up to the area, found the bird and after viewing the bird and referring to the pertinent literature, identified the bird as an immature Pectoral Sandpiper. Identification was based mainly on the fact that the breast was streaked all the way across. Fall to winter Sharp-tailed have buffy breasts with streaking restricted to the sides. Also, the supercilium (eye-line) of a Pectoral is broader and more white, especially behind the eye, than a Sharp-tailed. Also the light coloration of the bill extended too far from the base to the center of the bill for a Sharp-tailed Sandpiper. We had proceeded to Grand Marais and saw the Black-headed Grosbeak and then returned to Jan's and discussed the sandpiper. We were of course disappointed that it wasn't a Sharp-tailed. However, it was exciting and challenging to check out this bird. We all learned more about how to identify a Sharp-tailed Sandpiper. Hopefully one will wander into Minnesota in the future and we will be there to identify it. **Robert B. Janssen, 10521 S. Cedar Lake Rd., #212, Minnetonka, MN. 55343.**

**NORTHERN GREEN HERON COLONY** — On July 29, 1981 I investigated an area, near St. Cloud, Stearns Co. into which I had repeatedly seen Northern Green Herons fly, sometimes as many as three birds at one time. This area was like a jungle, a few tall elms and boxelders, but an understory consisting mainly of prickly ash, interspersed with hawthorne thickets and many vines. I found seven nests, six of which were empty, the young having flown, and one which held two small young about one-third grown. All of the nests were from seven to nine feet up in the hawthornes and each had lots of "whitewash" below. There were about twenty young in the surround-

ing trees. They could fly with some effort but had difficulty when alighting. Ten adults were also seen. I estimated that there were ten pair nesting here in one small area. It was rather painful pushing my way through this area while wearing a short-sleeved shirt and thin pants. On November 12, I revisited the area to get a complete count of the nests which could easily be seen now that the trees had shed their leaves. This time I wore a heavy pants and a jacket and also gloves. I investigated the entire area and found twenty-four nests in all in four groups: nine, twelve, two and one. I paced off the area, which was approximately eleven hundred feet long and about one hundred and fifty feet wide. At one end, the area I had visited on July 29th, there were nine nests. About two hundred feet away was the area with twelve nests. Two of the nests were only four feet above the ground and the highest was ten feet up. **Nestor Hiemenz, 705 18th Ave. So., St. Cloud, Mn. 56301**

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## 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.



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## SUGGESTIONS TO AUTHORS

The editors of **The Loon** invite you to submit 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 Kim Eckert. See inside front cover.

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