

The
LOON

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CONTENTS

The Loon Cry.....	3
Acadian Flycatcher Nest in Southeastern Minnesota	
Fred Leshar	4
The Fall Season	
Ronald L. Huber.....	7
M.O.U. Treasurer's Report.....	18
Say's Phoebe and Ground Dove Specimen's Found	
Kim R. Eckert.....	18
The Airport as a Game Sanctuary	
Wensell Frantzich	20
Notes of Interest.....	21
Book Reviews	28



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COVER: Juvenile Western Kingbird. Photo by Gerald H. Maertens, Crookston, Minnesota.

PURPOSE OF THE M.O.U.

The Minnesota Ornithologists Union is an organization of both professionals and amateurs interested in birds. We foster the study of birds, we aim to create and increase public interest in birds and 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 M.O.U. officers wish to point out to those interested in bird conservation that any or all phases of the M.O.U. program could be expanded significantly with gifts, memorials or bequests willed to the organization.

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THE LOON CRY

The names of birds have a mysterious sound. Imagine one who does well to distinguish between Robin and Blue Jay listening to a heated debate among experienced birdwatchers over whether or not a species is the Long-billed Dowitcher or Short-billed Dowitcher, a Marbled Godwit or Hudsonian Godwit. Surely the language itself of the initiated has a mysterious sound, not to speak of the fine distinctions made. And oftentimes one wonders, "What are the origins of some of the odd sounding birds' names?" For example, why is a species of shrike "loggerhead"? What does "gallinule" mean? What is the origin of "godwit"?

Many birds' names are descriptive of a characteristic habit of the species or family, as in "woodpecker" or "flycatcher". A second group of names refers to an outstanding anatomical feature of the species, as in "crossbill" or "Great-crested", applied to several species. This second group includes many hyphenated descriptions such as "Rough-legged", and "Double-crested". A third group of names is descriptive of coloration of some part or of the whole bird, as in "bluebird", "blackbird", "Golden-crowned Kinglet", "Red-eyed Vireo" or "Golden Eagle". A fourth group of names refers to the habitat of the species. In this group are "Upland" Plover, "Swamp" Sparrow, and "Savannah" Sparrow. Some names refer to the call or song of the bird as in "Piping" Plover, "Screech" Owl, and "Mourning" Dove. A sixth group of names is the group including the name of the person who "discovered" or named the species, or for whom the species was named. Among this group are "Smith's" Longspur, "Lincoln's" Sparrow, and "Bonaparte's" Gull. The seventh and last group include those species named for alleged human qualities rather than for their own. This group includes the well known example of the "Prothonotary" Warbler.

To begin an analysis of bird names with our Minnesota state bird, the Common Loon, is to be confronted by the complexities of the Indo-European family of languages. "Loon" is apparently of Scandinavian origin and is akin to the Norwegian "lom" or loon, which in turn is akin to the Old Norse "lomr". These three words are probably derived from the Latin "lamentum", which means "to cry out in grief". Thus, the bird with the strange name was originally named, sensibly enough, for its call.

The word "pelican" also has an interesting etymology. It is derived from the Middle English "pellican", from Old English "pellican", from Late Latin "pelicanus", from Greek "pelekan". "Pelekan" is probably akin to the Greek "pelekys" or ax, probably a battle-ax, which word in turn is similar to the Sanskrit "parasu" or ax. Therefore the pelican is probably named for an outstanding anatomical feature, its bill.

"Cormorant" means literally "raven of the sea". The Middle English form was "cormeraunt", derived from Middle French "cormoran". The French word was in turn derived from the Latin "corvus" for "raven" plus the Latin "marinus", meaning "of the sea".

Finally, the name "heron" is closely related to words from several languages, each word denoting something like a scream or cry. Our Modern English word is descended from the Middle English "heiroun", which in turn descended from the Old English "hragra". The Old English word is akin to the Welsh "cryg", meaning "hoarse", to the Greek "krike", meaning "creaked" to the Lithuanian "kryksti", meaning "to shriek", and to the Old High German "scrian", meaning "to scream or cry".

The lack of uniformity in the naming of birds may be confusing, but the variety and antiquity of names testify to the universality of the appeal which birds have had to men.

Fred Lester

Fred Leshner / ACADIAN
FLYCATCHER NEST IN
SOUTHEASTERN
MINNESOTA

On July 3, 1967, while birdwatching in Beaver Creek Valley State Park, Houston County, I was both intrigued and puzzled by a high pitched "call" or "song" coming from the deep woods of maple, basswood, and walnut. The intrigue resulted from my failure to locate the source easily, and the puzzle from the strangeness of the call.

Like the call of the Least Flycatcher, this call was two-syllabled, with the accent on the second syllable, but the second syllable sounded higher pitched, and could be described as "beek" rather than "bec" (Long "e" rather than short "e" as in the call of the Least Flycatcher). Also, the initial sound of the second syllable was not as explosive as that sound indicated by "b" or "p", but softer, as those sounds indicated by "h" or "r". Sometimes the first syllable was omitted, uttered alone, or inaudible. The first sound could be indicated by a voiceless "pit" or "k."

The difference between the quality of the Acadian call and the Least call can be studied on page 198 of Robbins' *Birds of North America*. Though I cannot reconcile my impression that the second syllable was higher pitched with the fact that the sonograms show the pitches to be nearly identical, the wide, blurred line for the Least indicates that its call is buzzier than the piercing call of the Acadian.

After pursuing the caller for about fifteen minutes I located a greenish backed *Empidonax* perched about thirty feet high, just beneath the forest canopy. Though it is impossible to distinguish among all *Empidonax* flycatchers by field marks, I did note that wing bars and underparts were both a yellowish white. Unfortunately, this bird did not call while I had him in view. Though I observed this bird several times, I was unable to definitely connect the call to the bird.

Then I saw a nest suspended about twenty feet over a stream. Several times



Habitat and nest site of Acadian Flycatcher in Beaver Creek Valley State Park, Houston County, Minnesota.

an *Empidonax* flycatcher flew to the nest, sat in the nest, thrust its bill into the side of the nest, withdrew the bill, turned around several times, then flew away. The

Habitat and nest site of Acadian Flycatcher, with sign indicating location of the nest in Beaver Creek Valley State Park, Houston County, Minnesota.



nest was slung hammock fashion from a horizontal crotch.

Because of the quiet habits, the deep hardwoods habitat and the type and location of the nest, but mostly because of the strange and distinctive call, I was fairly certain I had discovered an Acadian Flycatcher and nest.

On July 7 I returned to the park with two LaCrosse bird watchers, Jerry Rosso and Cameron Gunderson. From my notes of July 7 (taken in the field):

The bird returned to the nest of July 3 at about 6:45 PM DST, and remained for one-half hour, then left, but returned shortly. This bird did not call but did join a bird calling from high in the trees.

The calling bird was most often impossible to locate and called only infrequently: For example, one call was given at 7:28 PM, and not another until 7:50, then a third at 7:53. Hard to locate the bird (due to time of day—infrequent calling?) until 8:01, seen about twenty feet up. Bird seen to give distinctive call several times.

Observer agreed the call was totally unlike that of the Least. Uttered less frequently, it is almost a one syllabled explosion of sound.

The nest site was next visited on July 9. Members of the Avifaunal Club visiting the nest with me were Don Bolduc, Harding Huber, and Ray Glassel. At 6:15 AM DST the incubating bird was on the nest, but did not call. The mate was calling from the hillside in deep woods about 100 yards west of the nest. All agreed that the call was distinctly that of the Acadian. A short time after the mate called, the incubating bird gave only the "peet" or "kleep" syllable of the normally two syllabled call.

On July 22, an adult was on the nest from 4:05 to 4:30 PM DST. The nest tree was tentatively identified as an American Elm. Distance of the nest from the ground was estimated at 18-20 feet, and distance from the single main trunk was estimated at 12 feet. The departure of the nest branch from the trunk was about 16 feet from the ground. Total height of the tree was perhaps 25 to 30 feet. The nest was toward the bottom of the forest canopy, and visible to an alert observer. A small stream flowed directly beneath the nest.

The active nest was last observed on

August 3. At 6:10 PM DST, an adult with food was at the nest and calling feebly. At 6:20 both adults were at the nest, and again both adults at 6:27. At 6:30 one adult near the nest called or "sang" vigorously. The female (presumably the female) was on the nest when I left at 7:15. Two young were seen in the



Nest of Acadian Flycatcher in a horizontal crotch. Nest slung hammock fashion.

nest, preening, stretching, and moving about strongly.

Finally, on October 3, 1967, I returned to collect the nest. As the photos show, the nest is insubstantial, and not placed

Nest of Acadian Flycatcher in a horizontal crotch. Structure of nest appears fragile.



in a crotch but suspended from a horizontal fork.

A comparison of Acadian, Traill's, and Least Flycatcher nest is instructive, perhaps diagnostic. According to Bent (Dover, 1963, p. 186): *E. trailli* (Traill's) and *minimus* (Least) both build cup-shaped nests, resting in crotches between upstanding shoots or twigs of such trees of low growth as Alder and Sumac; *virescens* (Acadian) swings her nest hammock-wise between horizontally spreading twigs.

The photos accompanying this report clearly show the two types of crotch nests constructed by the Least and Acadian Flycatchers. Plates 23, 25, 27, and 28 in the Dover edition of Bent illustrate the two types of crotch nests built by the three species.

Furthermore, Bent describes the nest as "a frail, shallow basket of fine, dry plant stems or other fibrous strands, hung by its rim between slender forked twigs." The photo shows a nest with these characteristics. The fibrous body of the collected nest is woven by fine threads. The dimensions of the nest are as follows: Outside diameter: 70mm; Inside diameter: 55mm; Outside depth: 30mm; Inside depth: 15mm.

The nest may have deteriorated before I collected it in early October. In addition to those previously mentioned, the nest and birds were also seen by Mr. and Mrs. J. Milton Dahm of Winona, and by Bob Janssen and Brother Theodore of Minneapolis.



Least Flycatcher at nest in vertical crotch.

Because of the call of these birds, the habitat, the type and location of the nest, and because the birds and nest were seen by many reliable bird watchers, I believe this is the first verified report of the Acadian Flycatcher nesting in Minnesota. 509 Winona Street, LaCrosse, Wisconsin.

NORTH AMERICAN NEST RECORD CARD PROGRAM

As many readers are aware, the Nest Record Card Program is now completing its third year on a continent-wide basis. We appreciate the assistance of the hundreds of persons and Bird Clubs whose enthusiasm and patience make this program possible. We are anxious to solicit help from as many clubs and cooperators as possible. If you are interested in helping in this research, please get in touch with the Laboratory of Ornithology at Cornell University for instructions and nest-record cards. Before the new nesting season begins, we urge all present contributors to return any completed cards. We also request that participating clubs and birders order additional cards, if necessary, well in advance of the 1968 nesting season. (Mrs.) Edith Edgerton, Nest-record Card Program, Laboratory of Ornithology, 159 Sapsucker Woods Road, Ithaca, New York 14850.

(August 1 - November 30, 1967)

Because some northern species begin their southward movement while a few of our native Minnesota breeding birds are still nesting, there is some overlap (notably August) between the Summer Season and Fall Season dates. Perhaps interdigitate is a better word than overlap, but the reader can easily ascertain from past accounts in the Seasonal Report as to whether or not the species in question is breeding or transient. Also, on rare occasion, certain species will linger into the first week of December, and if this is known to me, I indicate it to make more meaningful the last extreme dates of the autumnal migration. Additionally, in the Winter Season, I will repeat the transcription of these early December records for the benefit of those who are chronistically inclined to regard December, January and February as their "Winter List." This duplication need not be defended because the number of species actually receiving double-entry will be very few.

The Fall was noticeably cooler than usual, except for an unseasonably warm spell in early November. Precipitation levels were far below normal, and EGA reports that the Fargo-Moorhead area experienced the driest November in 66 years!

Common Loon: latest 10-23 Cook Co., FN/MAS; 10-29 Lyon Co., PE and Washington Co., DS; 11-3 Stearns Co., KE; 11-12 Hennepin Co., RBJ.

Red-necked Grebe: 8-20 Wright Co., DB; 8-30 Lake Co., JCG; 9-20 Lake Co., FN/MAS; 9-24 Duluth, JCG.

Horned Grebe: late 10-11 Becker Co., JAH; 10-24 Duluth, JCG; 11-12 Minneapolis, RBJ.

Eared Grebe: only fall reports were from "wrong" part of state: 10-23 Hovland, Cook Co., 1, FN/MAS; 11-28 Duluth, 1 frozen in harbor ice, rescued and brought to JCG, latest date on record for state.

Pied-billed Grebe: latest 11-3 Stearns

Co., KE; Fargo-Moorhead, EGA; 11-13, 11-15 Wabasha Co., DGM; 11-21 Ramsey Co., ELC.

White Pelican: 8-20 Wright Co., 1, DB; 9-4 Heron Lake, Jackson Co., 100+, Mrs. Bertram Miller *vide* WJB; 9-6 Big Stone Co., 150, JAH; 9-18 Traverse Co., 500, JAH; 9-23 Sibley Co., 6, FN/MAS; 9-30 Lac Qui Parle Co., 20, JLS; 9-30 Carver Co., 150, RDT; 10-6 Duluth *vide* RN; 10-6 Big Stone Co., 15, JAH; 10-8 Lyon Co., 45, PE; October, Nobles and Jackson Co's., many, HSH.

Double-crested Cormorant: latest 9-18 Traverse Co., 750, JAH; 9-30 Lac Qui Parle Co., JLS; 10-6 Big Stone Co., 5, JAH; 10-28 Lyon Co., 1, PE.

Great Blue Heron: latest 11-18 Houston Co., FL; 11-19 Dakota Co., FN/MAS; 11-23 Anoka Co., ACR and Pope Co., WH; 11-25 Dakota Co., RJC.

Green Heron: latest 9-30 Stearns Co., KE; 10-5 Washington Co., DS; 10-8 Hennepin Co., VL; one large concentration, 9-21 Wabasha Co., 35, DGM; one westerly record, 9-17 Pomme de Terre Lake, Stevens Co., 1, JAH.

Common Egret: latest 10-3 Hennepin Co., VL; 10-4 Houston Co., FL; 10-14 Washington Co., ACR; 10-21 Houston Co., FN/MAS; one large concentration, 10-1 Houston Co., 43, FN/MAS.

Black-crowned Night Heron: latest 9-16 Big Stone Co., JAH; 9-20 Washington Co., DS; 9-25 Nobles Co., HSH; 11-28 Washington Co., 1, WWL.

Yellow-crowned Night Heron: 9-2 (2 imm), 9-16 (1 imm) La Crescent, Houston Co., FL.

Least Bittern: 8-10 Carver Co., FN/MAS; 8-12 Nicollet Co., DB; 8-20 Wright Co., DB; 8-29 Nicollet Co., DB.

American Bittern: latest 10-4 Hennepin Co., FN/MAS; 10-7 Lyon Co., PE; 10-13 Becker Co., JAH.

Whistling Swan: earliest 10-20 Wabasha Co., 3, MIG; 11-1 Roseau Co., 43, PEB; late 11-18 Houston Co., 12, FL; 11-22 McLeod Co., 39, PE and Fargo-Moorhead, 1, EGA; 11-28 Washington Co., 75, WWL.

Canada Goose: latest (other than at Rochester) 11-7 Wabasha Co., DGM; 11-12 Pine Co., 50, DS; 11-24 Fargo-Moorhead, EGA.

Snow/Blue Goose: earliest 9-19 Duluth, FN/MAS; 9-21 Anoka Co., WHL; 9-22 Blue Earth Co., EDK; latest 10-28 Lyon Co., PE; 11-14 Itasca Co., DS; 11-13, 12-1 Nobles Co., HSH.

Black Duck: numerous reports until first week of Dec.; difficult to separate late migrants from wintering birds; one western record 9-27 Stevens Co., 2, "uncommon migrant here," JAH.

Gadwall: latest 10-14 Stearns Co., KE; 10-21 Beltrami Co., DS; 11-15 Blue Earth Co., EDK.

Pintail: latest 10-28 Anoka Co., DS; 11-3 Hennepin Co., VL.

Green-winged Teal: latest 10-28 Anoka Co., DS and Lyon Co., PE; 11-7 Dakota Co., FN/MAS; 11-24 Fargo-Moorhead, EGA.

Blue-winged Teal: latest 10-28 Lyon Co., PE; 10-30 Fargo-Moorhead, EGA; 11-11 Stearns Co., KE and Anoka Co., DS.

American Widgeon: latest 11-4 Ramsey Co., RJC; 11-7 LeSueur Co., FN/MAS; 11-12 Hennepin Co., RBJ; 11-19 Dakota Co., FN/MAS; 11-26 Hennepin Co., VL; two reports of concentrations, 10-7 Anoka Co., 250, DS and 10-25 Anoka Co., 300, WHL.

Shoveler: latest 11-11 Lyon Co., PE; 11-14(VL), 11-20(RBJ), 11-30(VL) Hennepin Co.

Wood Duck: latest 11-11 Washington Co., DS; 11-23 Wabasha Co., DGM; 11-26 Ramsey Co., MIG; one unusual northeastern record 10-28 Grand Marais, Cook Co., 1, BL.

Redhead: latest 11-19 Beltrami Co., JAH; 11-26 Hennepin Co., VL and Lyon Co., PE; 12-3 Minneapolis, RBJ.

Ring-necked Duck: latest 11-26 Lyon Co., PE; 11-30 Hennepin Co., VL; 12-3 Minneapolis, RBJ.

Canvasback: latest 11-19 Washington Co., DS; 11-25 Lyon Co., PE; 11-26 Wabasha Co., DGM.

Greater Scaup: 10-8(250), 10-23(500), 11-11(200) Anoka Co., DS.

Lesser Scaup: latest 11-19 Beltrami Co., JAH; 11-26 Lyon Co., PE; 11-29 Lake Co., JCG.

Bufflehead: earliest 10-14 Ramsey Co., RJC; 10-16 Hennepin Co., VL; 10-19 Anoka Co., DS.

Oldsquaw: 11-19 Two Harbors, Lake Co., 1, JCG; only report.

White-winged Scoter: 10-13 Little Pine Lake, Ottertail Co., 3, JAH; 11-18 Pone-mah, Beltrami Co., 1, JAH; 11-25 Du-luth, 2, JCG.

Surf Scoter: 10-8(2,RK), 10-28(1,JCG) Stoney Point, St. Louis Co.

Common Scoter: 10-8 Stoney Point, St. Louis Co., 1 RK, JCG; 11-13 Mille Lacs Lake, 1 imm shot, *vide* ELC; 11-25 Du-luth, 1, JCG.

Ruddy Duck: latest 10-27 Stevens Co., JAH; 11-22 Washington Co., DS; 12-3 Minneapolis, VL,RBJ.

Hooded Merganser: latest 11-20 Wabasha Co., DGM; 11-30(VL), 12-9(RBJ) Minneapolis.

Common Merganser: earliest in south 11-12 Anoka Co., WHL; 11-15 Wabasha Co., DGM; 11-22 Hennepin Co., FN/MAS; 11-24 Lyon Co., PE.

Red-breasted Merganser: earliest in south 11-21 Wabasha Co., 20, DGM.

Turkey Vulture: latest 10-8 Hennepin Co., EWJ; 10-11 Becker Co., JAH; 10-14 Duluth, PBH; 10-20 Winona Co., MIG.

Goshawk: 8-30 Duluth, PBH; 9-9 Pine Co., BL; 9-16 Lyon Co., DB,EHH; 9-23 Duluth, PBH; 10-8 Stearns Co., KE; 10-14 Duluth, PBH; 11-11 Lake of the Woods Co., PEB; 11-17 Anoka Co., PE; 11-18 Beltrami Co., JAH.

Sharp-shinned Hawk: latest 10-15 Ottertail Co., JAH; 10-17 Duluth, PBH; 10-31 Hennepin Co., MEH.

Cooper's Hawk: latest 11-8 Hennepin Co., MEH; 11-27 Wabasha Co., DGM.

Red-tailed Hawk: latest in north 10-4 Roseau Co., PEB; December, Duluth, JCG.

Red-shouldered Hawk: 8-3 to 8-17, reported on 5 dates, Tamarac Refuge, Becker Co., JF; 9-15 Washington Co., 1, attacked imm Pileated Woodpecker, WWL; 9-16 Houston Co., FL; 10-1 Stearns Co., 1, KE.

Broad-winged Hawk: latest 9-22 Hennepin Co., VL; 9-23 Lake Co., 125, RK; 9-24 Duluth, JCG.

Swainson's Hawk: 9-1 West St. Paul, Dakota Co., 1 found injured, brought to JO; 9-3 Lake Benton, Lincoln Co., 5, BL.

Rough-legged Hawk: earliest 9-20 Duluth, JCG; 9-23 Carver and Sibley Cos., FN/MAS; 9-27 Wabasha Co., DGM.

FERRUGINOUS HAWK: 9-3 Lake Benton, Lincoln Co., 1 imm, BL.

Golden Eagle: 9-10 Mille Lacs Co., 1, MIG.

Bald Eagle: 8-1(2), 8-4(4), 8-14(2), 8-22(4) Becker Co., JF; 8-9 Itasca Co., 1 imm, JAH; 9-16 Houston Co., 1 imm, FL; 9-21 Duluth, 1, PBH; 9-23 Duluth, 1 imm, JCG; 9-25 Stearns Co., 1 ad, KE; 10-10 Crow Wing Co., 5 ad and Mille Lacs Co., 2 ad, FN/MAS; 10-12 Becker Co., 1 ad, 4 imm, JAH; 10-28(1 imm) 11-4(2 ad, 1 imm) Crow Wing Co., ELC; 11-4 Wabasha Co., 2, DGM; 11-12 Anoka Co., 1 imm, WHL, Duluth, 1 imm, JCG and Stevens Co., 1 ad, JAH; 11-13 Mille Lacs Co., 1 imm, ELC; 11-15(1), 11-21(2) Wabasha Co., DGM; 11-22 Wabasha Co., 2 imm, RAK; 11-23 Ramsey Co., 3 imm, BL; 11-24 Mille Lacs Co., *fide* DW; 11-26 Lac Qui Parle Co., 1 ad, JLS; 11-28 Crow Wing Co., 1, MSB.

Marsh Hawk: latest 11-1 Wabasha Co., DGM; 11-4 Nicollet Co., DB; 11-5 Hennepin Co., CKS and Pine Co., DS.

Osprey: 8-8 Itasca Co., 3, JAH; 8-10 Chisago Co., 1, JAH; 9-9 Duluth, 1, DB;

9-16 to 9-21 Duluth, PBH; 9-17 Wabasha Co., DGM and Stearns Co., KE; 9-22 Hibbing, 1, HM; 9-23 Washington Co., 2, DS and Carver Co., 1, FN/MAS; 9-24 Duluth, 1, MIG; 9-26 Wabasha Co., DGM; 10-1 Clearwater Co., 1 standing on nest, AWP; 10-3 Anoka Co., 1, PE; 10-7 Morrison Co., 1, LSR; 10-8 Lake Co., 1, JCG; 10-8 Lyon Co., 1, PE; 10-14 Anoka Co., 1, WHL.

Peregrine Falcon: 8-30 Duluth, 1, PBH; 9-11 Stearns Co., 1, KE; 9-16 Big Stone Co., 1, JAH; 10-8 Stearns Co., 1, KE.

Pigeon Hawk: latest 9-13 Cook Co., JCG; 9-16 Lyon Co., BL.

Sparrow Hawk: latest in north 10-21 Roseau Co., PEB; 11-5 Pope Co., WH; 11-23 Duluth, JKB.

Spruce Grouse: 8-26 St. Louis Co., 2, DB; 10-10 near Cook, St. Louis Co., 2, RBJ; 10-21 Blackduck, Beltrami Co., 2, DS; 11-19 Faunce, Lake of the Woods Co., 2, JAH.

Ruffed Grouse: reported from Beltrami, Becker, Ottertail, **Norman** (EGA), Kanabec, Goodhue, St. Louis, Stearns, Morrison, Lake, Cook, Wabasha, Itasca, Ramsey and Washington Co's.; numbers increasing steadily.

Sharp-tailed Grouse: 11-27 Hibbing, 1 being chased by Snowy Owl, John Micensky.

Ring-necked Pheasant: reported from Stevens, Lyon, St. Louis (Duluth), Stearns, Morrison, Wabasha, Washington, Hennepin, Ramsey, Dakota, Nobles Co's., but numbers much reduced.

Gray Partridge: 8-12 Lyon Co., 1, PE; 8-13 Redwood Co., 1, PE; 10-28 Lac Qui Parle Co., 13, JLS; 11-11 Lyon Co., 20, PE.

Sandhill Crane: 9-20(8), 9-25(27), 10-3 (6) Roseau Co., PEB; 9-23 Duluth, 1, PBH and Isabella, Lake Co., 2, Leroy Rutske *fide* RN; 10-7, 10-14 Thief Lake Refuge, Marshall Co., 24, MSB; 10-22 Borup, Norman Co., 3,000, EGA; 12-1 Carlos Avery Refuge, Anoka Co., 2, WHL.

Yellow Rail: 9-8 Lutsen, Cook Co., 1, JNG; 10-3 Duluth, 1 found injured *fide* JCG.

Virginia Rail: latest 8-29 Nicollet Co., EHH; 9-18 Yellow Medicine Co., PE.

Sora: latest 9-15 Ramsey Co., ACR; 9-18 Yellow Medicine Co., PE; 9-20 Wabasha Co., DGM.

Common Gallinule: 8-6 Washington Co., 1, ACR; only report.

American Coot: latest in north 11-7 Cook Co., RLG; 11-17 Duluth, JCG; 11-19 Beltrami Co., 19, JAH.

Semipalmated Plover: earliest 8-4 Lyon Co., PE; 8-9 Fargo-Moorhead, EGA; latest 9120 Duluth, FN/MAS; 10-8 Lyon Co., PE.

Piping Plover: 7-29 Duluth, 1, BL; only report.

Killdeer: latest 11-7 Sibley Co., FN/MAS; 11-10 Pope Co., WH; 11-24 St. Paul, ACR.

American Golden Plover: earliest 9-6 Lac Qui Parle Co., JAH; 9-9 Fargo-Moorhead, EGA; latest 10-29 Duluth, KE; 11-11 Stearns Co., KE.

Black-bellied Plover: earliest 9-16 Lac Qui Parle Co., DB,EHH; 9-23 Duluth, RBJ,JCG; latest 10-23 Duluth, 14, JCG; 10-24 Cook Co., FN/MAS.

American Woodcock: latest 10-8 St. Louis Co., RBJ; 10-15 Pine Co., DS.

Common Snipe: latest in north 10-21 Beltrami Co., DS; 11-1 Roseau Co., PEB.

Upland Plover: 8-6 Anoka Co., 1, PE.

Spotted Sandpiper: latest 10-12 Becker Co., JAH; 10-14 Anoka Co., PE; **10-28** Two Harbors, Lake Co., 1, BL.

Solitary Sandpiper: earliest 7-29 Itasca Co., ACR; 8-4 Lyon Co., PE; 8-5 Stevens Co., JAH; latest 9-23 Carver Co., FN/MAS; 10-2 Ramsey Co., ELC; 10-12 Becker Co., JAH.

Greater Yellowlegs: earliest 8-4 Lyon Co., PE and Hennepin Co., VL; 8-5 Stevens Co., JAH; latest 11-6 Hennepin Co., RDT; 11-7 Dakota Co. and Sibley Co., FN/MAS; 11-9 Stearns Co., KE.

Lesser Yellowlegs: earliest 8-4 Lyon Co., PE; 8-5 Stevens Co., JAH; 8-8 Fargo-Moorhead, EGA; latest 11-11 Lyon Co.,

PE; 11-12 Fargo-Moorhead, EGA; 11-18 Houston Co., 1 with lame leg, FL.

Knot: 10-17 Duluth, 10, EHH; only report.

Pectoral Sandpiper: earliest 8-5 Stevens Co., JAH; 8-7 Hennepin Co., VL; latest 10-21 Anoka Co., PE; 11-3 Stevens Co., JAH and Stearns Co., KE; 11-11 Stearns Co., KE.

White-rumped Sandpiper: 9-13 Moorhead, Clay Co., 1, seen flying also, EGA, LWJ; very few fall records for Minnesota.

Baird's Sandpiper: earliest 8-8 Fargo-Moorhead, EGA; 8-10 Carver Co., FN/MAS; latest 10-2 Anoka Co., WHL; 10-3 Minneapolis, VL; 10-17 Big Stone Co., JAH.

Least Sandpiper: earliest 8-4 Lyon Co., PE; 8-5 Stevens Co., JAH; latest 9-18 Lyon Co., PE; 10-1 Stevens Co., JAH; 10-3 Minneapolis, VL.

Dunlin: 8-13 Mille Lacs Lake, 1, MIG; only fall report.

Long-billed Dowitcher: 8-26 Lyon Co., PE; 9-6 Big Stone Co., JAH; 9-16 Lyon Co., DB; all records based on call-notes.

Short-billed Dowitcher: 8-4, 8-27 Lyon Co., PE; call-notes heard.

Dowitcher, species ?: 8-9 Fargo-Moorhead, EGA; 8-21, 9-4, 9-14 Crow Wing Co., MSB; 9-10 Stearns Co., KE; 9-17 Fargo-Moorhead, EGA; 10-5 Anoka Co., WHL; 10-14 Crow Wing Co., MSB; 10-17 Big Stone Co., JAH; **11-7** Dakota Co., 5, FN/MAS.

Stilt Sandpiper: earliest 7-29 Duluth, BL; 8-12 Lyon Co., PE; latest 9-17 Fargo-Moorhead, EGA; 9-18 Lyon Co., PE.

Semipalmated Sandpiper: earliest 8-4 Lyon Co., PE and Hennepin Co., VL; 8-15 Crow Wing Co., MSB; latest 9-17 Fargo-Moorhead, EGA; 9-18 Lyon Co., PE; 10-17 Big Stone Co., JAH.

WESTERN SANDPIPER: 8-27 (1,PE), 9-16 (3,EHH,DB) Lyon Co.; good details.

Buff-breasted Sandpiper: 7-29 (BL), 9-7 (JCG), 9-23 (EHH) Duluth, 2 birds.

Sanderling: earliest 8-10 Carver Co., FN/MAS; 9-4 Fargo-Moorhead, EGA; latest 9-24 Duluth, JCG; 10-7 Lyon Co., PE; 10-17 Big Stone Co., JAH.

American Avocet: 8-27 Lyon Co., 1, PE; only fall report.

Wilson's Phalarope: latest 9-16 Lac Qui Parle Co., DB; 9-17 Fargo-Moorhead, EGA.

Northern Phalarope: 8-27 Lyon Co., PE; 9-16 Lac Qui Parle Co., DB,EHH and Lyon Co., PE; 10-6 Lac Qui Parle Co., JAH.

Glaucous Gull: earliest 11-29 Duluth, 1 imm, JCG and Knife River, 1 ad, 1 imm, JCG; only reports.

Ring-billed Gull: latest 11-23 Washington Co., DS; 11-26 Minneapolis, CKS and Stevens Co., JAH; 11-30 Minneapolis, VL.

Franklin's Gull: latest 11-9 Stevens Co., JAH; 11-11 Stearns Co., KE; 11-12 Nobles Co., HSH.

Bonaparte's Gull: earliest 8-8 Itasca Co., JAH; 8-13 Mille Lacs Lake, MIG; latest 10-2 Hennepin Co., FN/MAS; 10-14 Ottertail Co., JAH; 11-9 Lake Co., RK, late that far north.

Forster's Tern: latest 8-20 Wright Co., DB; 9-6 Big Stone Co., JAH; 9-18 Lyon Co., PE.

Common Tern: latest 8-13(175), 8-27(2) Mille Lacs Lake, MIG; none in September?

Caspian Tern: 9-8 Morrison Co., LSR; only report.

Black Tern: latest 9-7 Duluth, JCG; 9-18 Lyon Co., PE and Grant Co., JAH.

Mourning Dove: latest in north 10-28 Lake Co., BL; 11-12 Cook Co., MOP; 11-19 Lake Co., JCG.

Yellow-billed Cuckoo: late 9-6 Morrison Co., LSR; 9-29 Hennepin Co., MHM.

Black-billed Cuckoo: latest 9-2 Clearwater Co., AWP; 9-8 Hennepin Co., VL; 10-2 Morrison Co., LSR.

Screech Owl: reported only from Henne-

pin and Washington Co's. and Fargo-Moorhead.

Great Horned Owl: reported from Fargo-Moorhead and Washington, Morrison, Pope, Stevens, Becker, Beltrami, Stearns, Itasca and Cottonwood Co's.

Snowy Owl: 10-30 Tofte, Cook Co., 1, MOP and Anoka Co., 1, *fide* TN; 11-8 Watonwan Co., 5 mi. S. Madelia, 1, EDK; 11-17(1), 12-3(1) Crosby, Crow Wing Co., MSB; 11-20 Kettle River, Pine Co., 1, *fide* RN; 11-21 Duluth, St. Louis Co., 1, JKB; 11-27 Hibbing, St. Louis Co., 1 pursuing Sharp-tailed Grouse, John Micensky; 11-29 Morris, Stevens Co., 1, JAH; 11-29 Two Harbors, Lake Co., 1, JCG; 11-29 Duluth, 1, JCG and Palmers, St. Louis Co., 1, JCG; apparently the beginnings of an echo invasion following last year's influx.

Hawk-Owl: 11-19 Faunce, Lake of the Woods Co., 1, PEB.

Barred Owl: reported from Morrison, Becker and Sterns Co's.

Long-eared Owl: 10-8 Blue Earth Co., 4 mi. SW of Vernon Center, 1, EDK; 10-25 Farribault, Rice Co., 1 found dead, OAR.

Short-eared Owl: 10-1 Anoka Co., 2, DB; 10-21 Roseau Co., 1, PEB; 11-19 Duluth, 1, JGH; 11-29 Cook Co., 1, MOP; 11-30 Duluth, JGH.

Common Nighthawk: latest 9-24 Fargo-Moorhead, EGA; 9-26 Anoka Co., PE; 10-3 Houston Co., FL.

Chimney Swift: latest 9-1 Washington Co., DS; 9-3 Ramsey Co., ACR; 9-15 Fargo-Moorhead, EGA.

Ruby-throated Hummingbird: latest 9-21 Cook Co., MOP; 9-29 Ramsey Co., MIG; 10-2 Cottonwood Co., LAF.

Belted Kingfisher: latest in north 11-1 Cook Co., JGH; 11-21 Pope Co., WH.

Yellow-shafted Flicker: latest in north 11-5 Cook Co., Tofte, MOP and Lutsen, RLG; 11-18 Duluth, KS.

RED-SHAFTED FLICKER: 10-10 Win-
dom, Cottonwood Co., 1 ad male, good description, JMS.

Pileated Woodpecker: reported from

Fargo-Moorhead and Wabasha, Anoka, Hennepin, Cook, Stearns, Washington, Clearwater, St. Louis, Goodhue, Morrison Co's.

Red-bellied Woodpecker: reported from Wabasha, Washington, Stearns, Carver, Hennepin, Ramsey, CARLTON (Cromwell, 10-22, JCG, JNG) Cos.

Red-headed Woodpecker: latest 9-28 Washington Co., DS, WWL; 10-2 Pine Co., ACR; 11-17 Stearns Co., KE.

Yellow-bellied Sapsucker: latest in north 10-1 Duluth, JCG; 10-2 Two Harbors, Lake Co., RK; 10-23 Illgen City, Lake Co., FN/MAS; latest in south 10-2 Morrison Co., LSR; 10-3 Anoka Co., WHL; 11-8, 11-20 Minneapolis, VL.

Black-backed Three-toed Woodpecker: 11-4 Duluth, 1, JGH and Tofte, Cook Co., 1, MOP; 11-18 Isabella, Lake Co., 1, JLS.

NORTHERN THREE-TOED WOODPECKER: 11-24 to 11-29 Hubbard Co., 8 mi. SE of Park Rapids, 1 male, AWP and several other observers.

Eastern Kingbird: latest 9-15 Grand Marais, Cook Co., JCG; 9-18 Renville Co., PE; 9-23 Stevens Co., JAH.

Western Kingbird: latest 8-31 Pope Co., JAH; 9-3 Lincoln Co., BL.

Great Crested Flycatcher: latest 9-15 Washington Co., WWL; 9-16 Lyon Co., BL; 9-17 Pine Co., MIG; 9-24 Duluth, KE.

Eastern Phoebe: latest 10-2 Washington Co., DS; 10-3 Anoka Co., WHL; 10-14 Anoka Co., PE and Wabasha Co., DGM.

Yellow-bellied Flycatcher: earliest in south 7-31 Washington Co., 1 banded, JO; latest 9-9 Hibbing, HM; 9-20 Duluth, FN/MAS; 10-2 Morrison Co., LSR.

Traill's Flycatcher: latest 9-16 Houston Co., FL; 9-20 Morrison Co., LSR; 9-22 Lake Co., RK.

Least Flycatcher: latest 9-14 Morrison Co., LSR; 9-17 Washington Co., WWL; 9-25 Hibbing, 1 banded, HM.

Eastern Wood Pewee: latest 9-17 Wash-

ington Co., DS; 9-28 Fargo-Moorhead, EGA; 9-29 Hennepin Co., VL.

Olive-sided Flycatcher: latest 9-3 Pipestone Co. and Lincoln Co., BL; 9-3 Hennepin Co., FN/MAS; 9-9 Hennepin Co., RBJ.

Horned Lark: latest 11-29 Stearns Co., KE; 11-29 Stearns Co., KE; 11-30 Washington Co., WWL and Pope Co., WH.

Tree Swallow: latest 10-4 Houston Co., FL; 10-8 Lyon Co., PE, Wabasha Co., DGM and Hennepin Co., VL; 11-8 Carlos Avery Refuge, Anoka Co., 3, WHL.

Bank Swallow: latest 8-25 Wabasha Co., DGM; 8-29 Washington Co., DS; 9-16 Stearns Co., KE and Big Stone Co., JAH.

Rough-winged Swallow: latest 8-15, 8-29 Washington Co., DS; 9-10 Washington Co., WWL.

Barn Swallow: latest 10-1 Stearns Co., KE; 10-8 Lyon Co., PE; 10-10 Nobles Co., HSH.

Cliff Swallow: latest 8-31 Lake Co., JCG; 10-7, 10-14 Anoka Co., DS; no September records?

Purple Martin: latest 9-17 Washington Co., WWL; 9-26 Fargo-Moorhead, EGA; 10-7, 10-19 Anoka Co., DS.

Gray Jay: reported from Beltrami, Itasca, Cook, Lake and St. Louis Cos., plus two southerly records; 11-15 Carlos Avery Refuge, Anoka Co., Charles Kinsey *vide* WHL; 11-19, 11-20 Edina, Hennepin Co., 1, KWE.

Black-billed Magpie: 8-29 Tamarac Refuge, Becker Co., 1, JF; 11-12 Fargo-Moorhead, 2, EGA; 11-18 Washkish, Beltrami Co., 3, JAH; 11-19 Fourtown, Beltrami Co., 1, JAH; 10-19 Alden Twp., St. Louis Co., 1, Stanley Anderson *vide* JCG; 11-10 Grand Rapids, Itasca Co., 1, H. Collins *vide* JCG; 11-29 Clearwater Co., 6, EHH; 9-7(1), 10-7(30) Warroad, Roseau Co., PEB; 10-19 Roseau, Roseau Co., west side of Red Lake, Beltrami Co., and 10-22 Williams, Lake of the Woods Co., Bruce Hale.

Common Raven: reported from Beltrami, Lake of the Woods, Cook, Lake, St. Louis and Roseau Cos.; one unusual southerly

record; 10-3 Carlos Avery Refuge, Anoka Co., 1, WHL.

Boreal Chickadee: reported from Lake of the Woods, St. Louis and Lake Co's.; one southerly record; 11-23 Glen Lake, Hennepin Co., 1, at feeder, Jim Coyner, good details verbally by telephone.

Tufted Titmouse: 9-15 through 11-19 Bloomington, Hennepin Co., MEH; 9-16 Hennepin Co., MHM; 9-16 Marine, Washington Co., MIG; 10-20 Houston Co., 7, MIG; 11-6 Minneapolis, VL.

Red-breasted Nuthatch: reported from Clearwater, Lake of the Woods, St. Louis and Lake Co's.; two southerly records, 9-3 Collegeville, Stearns Co., KE; 10-14 Stillwater, Washington Co., ACR.

Brown Creeper: earliest in south, 9-24 Bloomington, MEH; 9-25 Minneapolis, VL; latest in north, 10-11 Cook Co., MOP; 10-17 Lake Co., RK; 10-23 Duluth, JCG.

House Wren: latest 10-4 Anoka Co., PE; 10-5 Washington Co., DS; 10-15 Ramsey Co., RJC.

Winter Wren: 9-19 St. Paul, MIG; 9-21 Lake Co., RK; 10-1 Stearns Co., KE and Fargo-Moorhead, EGA; 10-7 Kanabec Co., DB; 10-11 Fargo-Moorhead, EGA and Minneapolis, VL.

Carolina Wren: 8-4 (VL), 8-12 (BL) Ft. Snelling State Park, Hennepin Co.

Long-billed Marsh Wren: latest 9-16 Lyon Co., DB; 10-8 Lyon Co., PE; 10-14 Crow Wing Co., MSB.

Short-billed Marsh Wren: latest 9-17 Cass Co., MSB and Hennepin Co., MHM; 9-19 Stevens Co., JAH; 10-5 Anoka Co., PE.

Catbird: latest 10-1 Stearns Co., KE; 10-13 Hibbing, HM; 11-5 Tofte, Cook Co., MOP; 11-30 Bloomington, Hennepin Co., CFC.

Brown Thrasher: latest 10-25 Anoka Co., PE; 11-10 Duluth, Joan Brodie *vide* RN; 11-10 Pope Co., WH; 11-30 (this one overwintered) Hennepin Co., MEH.

Robin: many reports in November, from Lake, Crow Wing, Washington, Stearns, Hennepin, Pope, Cottonwood, Stevens,

Carver, Lyon, Nobles Co's.; some of these undoubtedly were birds that ultimately overwintered.

Hermit Thrush: latest 10-11 Hennepin Co., VL; 10-13 Fargo-Moorhead, EGA; 10-14 Washington Co., ACR; 10-15 Hennepin Co., FN/MAS and Lake Co., RK; one exceptional record, 12-11 White Bear Lake, Ramsey Co., 1, good details, LJM; only December record for state.

Swainson's Thrush: latest 10-9 Hibbing, HM; 10-11 Ramsey Co., MIG; 10-15 Hennepin Co., FN/MAS; 10-16 Duluth, JGH.

Gray-cheeked Thrush: earliest 8-26 Fargo-Moorhead, EGA; 9-7 Hibbing, HM; 9-8 Lake Co., RK; latest 9-28 Hennepin Co., MHM; 10-2 Hibbing, HM; 10-4 Washington Co., WWL; 10-12 Fargo-Moorhead, EGA.

Veery: 9-8 Lake Co., RK.

Eastern Bluebird: latest 10-20 Houston Co., MIG; 10-24 Hennepin Co., VL; 10-29 Stearns Co., KE; 10-30 Lyon Co., PE; one very late, 11-30 Washington Co., WWL.

Golden-crowned Kinglet: earliest in south 9-22 Anoka Co., WHL; 9-28 Fargo-Moorhead, EGA; 9-28 Morrison Co., LSR; 9-29 Hennepin Co., MHM.

Ruby-crowned Kinglet: earliest in south, 9-11 Hennepin Co., MHM and Cottonwood Co., LAF; 9-15 Washington Co., WWL; 9-18 Morrison Co., LSR; latest 10-26 Anoka Co., PE; 10-28 Lake Co., RK; 10-30 Washington Co., DS.

Water Pipit: earliest 9-8 Cook Co., JCG; 9-12 Pope Co., JAH; 9-16 Stevens Co. and Big Stone Co., JAH; latest 10-8 French River, St. Louis Co., 75, JCG; 10-17 Duluth, EHH; 10-28 Lake Co., 6, BL; note 3 latest dates all from North Shore.

Bohemian Waxwing: 11-28 Cass Co., 20, EHH; only report.

Cedar Waxwing: very erratic and scattered across state; 6 reports in Aug. 5 in Sept. 8 in Oct. 5 in Nov.

Northern Shrike: earliest 10-24 Hennepin Co., VL; 10-30 Wabasha Co., DGM;

11-1 Pope Co., WH and Anoka Co., WHL.

Loggerhead Shrike: latest 8-23 Hennepin Co., VL; 9-16 Lyon Co., BL; 10-29 Ramsey Co., RJC.

Yellow-throated Vireo: latest 9-16 Stearns Co., KE; 9-16 Houston Co., FL; 9-18 Morrison Co., LSR; 9-26 Anoka Co., PE; one very late, 10-26 Morris, Stevens Co., 1, good details, JAH.

Solitary Vireo: latest 9-26 Anoka Co., PE; 9-28 Fargo-Moorhead, EGA; 10-2 Morrison Co., LSR; 10-5 Anoka Co., WHL; one very late, 10-23 Ramsey Co., ELC.

Red-eyed Vireo: latest 9-26 Anoka Co., PE; 9-28 Morrison Co., LSR and Fargo-Moorhead, EGA; 10-14 Stillwater, Washington Co., ACR.

Philadelphia Vireo: earliest 9-4 Lake Co., MIG; 9-5 Lake Co., RK; 9-6 Morrison Co., LSR; latest 9-26 Pope Co., JAH; 9-27 Hibbing, HM; 10-1 Anoka Co., PE; 10-5 Washington Co., DS.

Warbling Vireo: latest 9-26 Anoka Co., PE; 9-27 Hennepin Co., MHM; 9-28 Fargo-Moorhead, EGA.

Black-and-white Warbler: latest 9-17 Duluth, JCG; 9-18 Morrison Co., LSR; 9-27 Hennepin Co., VL.

Prothonotary Warbler: 9-3 Lake Harriet, Hennepin Co., 1 female, FN/MAS; this species usually leaves its Minnesota breeding haunts in early August; see Notes of Interest.

Golden-winged Warbler: latest 9-12 Morrison Co., LSR; 9-16 Lyon Co., BL and Hennepin Co., RDT.

Blue-winged Warbler: 9-4 Fargo-Moorhead, 1 banded, OAS.

Tennessee Warbler: earliest 7-25 Morrison Co., LSR (may breed there?); 8-23 Fargo-Moorhead, EGA; 8-31 Washington Co., DS; 9-1 Stearns Co., KE; 9-2 Hennepin Co., VL; latest 10-6 Hennepin Co., VL; 10-10 St. Paul, ACR and Lake Co., RK; 10-15 Ramsey Co., RJC.

Orange-crowned Warbler: earliest 8-29

Fargo-Moorhead, EGA; 9-1 Hibbing, HM; 9-10 Lake Co., MIG; latest 10-12 Becker Co., JAH; 10-13 Fargo-Moorhead, EGA; 10-18 Anoka Co., PE and Hennepin Co., VL; 10-23 Stoney Point, St. Louis Co., 1, RAK.

Nashville Warbler: latest 10-11 Lake Co., RK, Anoka Co., PE, and Hennepin Co., VL; 10-15 Stevens Co., JAH; 10-29 St. Paul, 1 banded, MIG.

Parula Warbler: latest 9-19 Hibbing, 1 banded, HM; 9-20 Duluth, FN/MAS; 9-26 Anoka Co., PE.

Yellow Warbler: latest 9-6 Fargo-Moorhead, EGA; 9-9 Cottonwood Co., LAF; 9-17 Nobles Co., HSH; very late, 10-2 (DS), 10-4(WWL) Washington Co.

Magnolia Warbler: latest 9-21 Hibbing, HM; 9-26 Anoka Co., PE; 9-30 Washington Co., DS.

Cape May Warbler: latest 9-18 Lake Co., RK; 9-19 Duluth, FN/MAS; 9-20 Hibbing, 1 banded, HM.

Black-throated Blue Warbler: 8-31 Washington Co., 1 banded, JO; 9-2 Washington Co., 1, WWL; 9-17 Two Harbors, Lake Co., 1 ad male banded, RK; 9-27 Washington Co., ELC; 9-29 Washington Co., 2, DS; more records than we've had for some time.

Myrtle Warbler: latest 10-20 St. Paul, ACR and Houston Co., MIG; 10-28 Two Harbors, Lake Co., BL; 10-29 Duluth, several, JGH.

Black-throated Green Warbler: latest 9-2 Clearwater Co., AWP; 9-6 Morrison Co., LSR; 9-27 Hibbing, 1 banded, HM.

Blackburnian Warbler: latest 9-2 Washington Co., WWL; 9-10 Minneapolis, VL and Mille Lacs Co., MIG.

Chestnut-sided Warbler: latest 9-17 Pine Co., MIG; 9-29 Washington Co., DS, WWL and Morrison Co., LSR.

Bay-breasted Warbler: latest 9-12, 9-20 Morrison Co., LSR; 10-6 Bloomington, Hennepin Co., 1 ad, MEH.

Blackpoll Warbler: earliest 8-29 Fargo-Moorhead, 4, EGA; 9-1, 9-4 Fargo-

Moorhead, EGA; 9-9 Hibbing, 1 banded, HM; latest 9-19 Duluth, FN/MAS; 9-22 Lake Co., RK; 9-26 Anoka Co., PE.

Pine Warbler: latest 9-22 Lake Co., RK; 9-26 Anoka Co., PE; 9-31(WWL), 10-2 (DS) Washington Co.

Palm Warbler: latest 10-13 Minneapolis, VL; 10-14 Anoka Co., PE; 10-15 Fargo-Moorhead, EGA and Duluth, JCG.

Ovenbird: latest 9-28 Morrison Co., LSR; 9-30 Washington Co., WWL and Fargo-Moorhead, EGA; 10-15 Minneapolis, FN/MAS.

Northern Waterthrush: latest 9-28 Minneapolis, VL; 9-29 Morrison Co., LSR; 10-3 Anoka Co., PE.

Connecticut Warbler: 8-17 Morrison Co., LSR; 8-24/25/26 Fargo - Moorhead, EGA; 8-31 Washington Co., WWL; 9-1 Washington Co., 10, WWL; 9-6 Wabasha Co., DGM; 9-8 Lake Co., RK; 9-12 Morrison Co., 2, LSR; 9-19 Lake Co., RK; 9-28 Minneapolis, VL.

Mourning Warbler: latest 9-10 Hibbing, 1 banded, HM; 9-19 Lake Co., RK; 10-1 Eden Prairie, Hennepin Co., 2, RAK.

Yellowthroat: latest 9-29 Minneapolis, VL; 9-30 Stearns Co., KE; 10-5 Anoka Co., PE; 10-11 Fargo-Moorhead, EGA.

Wilson's Warbler: latest 9-18 Morrison Co., LSR; 9-29 Washington Co., WWL and Minneapolis, VL.

Canada Warbler: latest 9-13 Cook Co., JCG; 9-26 Anoka Co., PE; 9-29 Washington Co., DS, WWL.

American Redstart: latest 9-22 Duluth, JCG; 9-26 Fargo-Moorhead, EGA and Anoka Co., PE; 9-29 Washington Co., DS, WWL.

Bobolink: latest 9-3 Pipestone Co., BL; 9-13 Fargo-Moorhead, EGA; 9-15 Washington Co., 6, WWL.

Eastern Meadowlark: latest 10-15 Houston Co., 1 singing, FL; 10-19 Anoka Co., DS; very late, 11-4, 11-9, 11-28 Cook Co., MOP.

Western Meadowlark: latest 10-22 Fargo-Moorhead, EGA and Stearns Co., KE;

10-24 Stevens Co., JAH; 11-1 Nobles Co., HSH; very late, 11-23 Lac Qui Parle Co., WHL.

Meadowlark, species?: late 11-1 Pope Co., 12, WH; 11-29 Roseau Co., 1, PEB.

Yellow-headed Blackbird: latest 9-24 Washington Co., DS and Lac Qui Parle Co., JAH; 9-30 Washington Co., DS; 10-24 Fargo-Moorhead, EGA.

Red-winged Blackbird: latest 11-23 Lac Qui Parle Co., WHL; 11-24 Washington Co., DS; 12-2 Stevens Co., JAH; 12-3 Anoka Co., ACR.

Orchard Oriole: 8-12 Cottonwood, Lyon Co., 3, PE; only report.

Baltimore Oriole: latest 9-14 Washington Co., WWL; 9-18 Cottonwood Co., LAF; 9-27 Washington Co., DS.

Rusty Blackbird: earliest 9-23 Duluth, RBJ, JCG; 9-27 Ramsey Co., RJC; 10-11 Becker Co., JAH; latest 11-19 Lake Co., JCG and Beltrami Co., JAH; 11-23 Lac Qui Parle Co., 80, WHL; 11-24 Lyon Co., PE; 11-26 Stevens Co., JAH.

Brewer's Blackbird: latest 10-28 Lyon Co., PE; 10-28 Washington Co., WWL; 11-7 Washington Co., DS; 11-11 Stearns Co., KE.

Blackbird, species?: 10-30 Cook Co., 17 at ground feeders, also eating Mountain Ash berries, RLG; 11-23 Cottonwood, 1, LAF.

Common Grackle: latest 11-26 Lyon Co., PE and Traverse Co., JAH; 11-29 Chisago Co., WHL; 11-30 Stearns Co., KE; 12-1 Anoka Co., ACR.

Brown-headed Cowbird: latest 9-24 Fargo-Moorhead, EGA; 10-17 Stevens Co., JAH; 11-11 Stearns Co., KE.

Scarlet Tanager: latest 9-26 Anoka Co., PE; 9-29 Crow Wing Co., MSB; 9-30 Minneapolis, VL.

Cardinal: usual southerly records, with these few northerly records: Morrison Co., 11-10, LSR; Duluth, 9-13, 2 males, RL, 11-12, 1 male *fide* RN, 11-18, 1 male, male, KS; Hibbing, 11-29, 1 male, banded on 12-1, HM; Cook Co., Schroeder, 10-23, MOP; at Fargo-Moorhead,

EGA received reports from 7 observers during fall.

Rose-breasted Grosbeak: latest 9-28 Hibbing, HM; 9-29 Washington Co., WWL and Anoka Co., PE; 9-30 Minneapolis, VL; 10-2 Washington Co., DS.

Indigo Bunting: latest 10-11 Anoka Co., PE; 10-14(ACR), 10-15(WWL) Washington Co.

Dickcissel: latest 9-3 Pipestone Co., BL; 9-15 Lyon Co., PE; 9-29 Traverse Co., JAH.

Evening Grosbeak: reported from Roseau, Cook, Crow Wing, Lake, St. Louis, Hubbard Co's.; no southern reports; also Fargo-Moorhead.

Pine Grosbeak: 11-11 Lake of the Woods Co., 3, PEB; 11-18 Lake Co., 4, JLS; 11-19 Lake of the Woods Co., 1, JAH.

Common Redpoll: earliest 10-5/6 St. Louis Co., HM; 10-27 Stearns Co., KE.

Pine Siskin: reported from Stevens, Becker, Crow Wing, St. Louis and Cook Co's.; only southern records were Washington Co. (9-26, DS; 9-15, 10-20 WWL) and Hennepin Co. (11-11, 11-18 VL); also reported from Fargo-Moorhead.

American Goldfinch: latest in north, 11-29 Duluth, JCG; 11-30 Cook Co., MOP; end of Nov. Roseau Co., PEB.

Red Crossbill: 8-20 St. Louis Co., 1, JAH; 10-15 Cook Co., BL; 10-27 Stearns Co., KE; 10-28 Cook Co., BL; 11-12 St. Louis Co., 40, JCG; 11-13 Stearns Co., KE; 11-18 Beltrami Co., 20, JAH; 12-3 Anoka Co., 2, ACR.

Rufous-sided Towhee: latest 9-22 Hennepin Co., MHN; 9-24 Fargo-Moorhead, EGA; 10-2 Anoka Co., PE; 10-11/15 Hennepin Co., FN/MAS.

Savannah Sparrow: latest 10-22 Grant Co., JAH and Stearns Co., KE; 10-23 St. Louis Co., FN/MAS; 10-28 Lyon Co., PE.

Grasshopper Sparrow: latest 9-4 Pope Co., WH; 9-17 Cass Co., MSB; 9-26 Pope Co., JAH.

LeConte's Sparrow: 8-29 Fargo-Moor-

head, EGA; 9-17 Cass Co., 1, MSB; only reports.

Vesper Sparrow: latest 10-10 Hennepin Co., VL; 10-16 Anoka Co., PE; 10-22 Traverse Co., JAH.

Lark Sparrow: 9-9 Stearns Co., 1, KE; only report.

Slate-colored Junco: earliest in south, 8-30 Fargo - Moorhead, EGA; 9-16 Stearns Co., KE; 9-26 Pope Co., JAH; 9-27 Hennepin Co., MEH; 9-29 Hennepin Co., MHM; latest in north, 11-1 Cook Co., RLG; 11-9 Lake Co., RK; 11-10 Cook Co., MOP.

Oregon Junco: 10-9 Hennepin Co., 1, MHM; 10-20 Stearns Co., 1, KE; 10-24 Washington Co., DS; 11-30 Anoka Co., 1, PE.

Tree Sparrow: earliest 9-24 St. Louis Co., JCG; 10-2 Anoka Co., ACR; 10-7 Nobles Co., HSH; 10-11 Becker Co., JAH.

Chipping Sparrow: latest 10-15 St. Louis Co., JCG; 10-22 Cottonwood Co., LAF; 10-30 Pope Co., WH and Washington Co., DS.

Clay-colored Sparrow: latest 10-2 Fargo-Moorhead, EGA; 10-15 Anoka Co., PE; 10-19 Ramsey Co., RJC.

Field Sparrow: latest 10-18 Pope Co., JAH; 10-27 Wabasha Co., DGM; 10-29 Washington Co., DS.

Harris' Sparrow: earliest 9-20 Cook Co., RLG; 9-21 Roseau Co., PEB and St. Louis Co., HM; 9-24 Lake Co., RK; latest 10-31 Anoka Co., PE; 11-4 Ramsey Co., MIG; 11-7 Nobles Co., HSH; 11-12 Lyon Co., PE; 11-28 Fargo-Moorhead, EGA.

White-crowned Sparrow: earliest 9-12 Washington Co., WWL; 9-17 Lake Co., RK; 9-20 Cook Co., RLG; 9-21 St. Louis Co., HM; latest 10-17 Lac Qui Parle Co., JAH; 10-19 Washington Co., DS; 10-26 Anoka Co., PE; 10-29 Anoka Co., ACR.

White-throated Sparrow: latest 11-17 Hennepin Co., EWJ; 11-18 Duluth, KS; 11-25 Hibbing, HM; 11-27 Fargo-Moorhead, EGA.

Fox Sparrow: earliest 9-21 St. Louis Co., HM; 9-26 Fargo-Moorhead, EGA; 9-28 Morrison Co., LSR; 9-29 Hennepin Co., VL; latest 11-8 Washington Co., WWL; 11-10 Hennepin Co., VL; 11-19 Duluth, PBH.

Lincoln's Sparrow: latest 10-7 Morrison Co., LSR; 10-13 Ramsey Co., MIG; 10-16 Hibbing, HM; 10-31 Fargo-Moorhead, EGA.

Swamp Sparrow: latest 10-19 Washington Co., DS; 10-22 Fargo-Moorhead, EGA; 10-27 Stearns Co., KE; 11-6 Anoka Co., PE.

Song Sparrow: latest 11-2 Anoka Co., PE; 11-3 Stearns Co., KE; 11-8 Fargo-Moorhead, EGA; 11-24 Lyon Co., PE.

Lapland Longspur: earliest 9-11 St. Louis Co., JCG; 9-19 St. Louis Co., FN/MAS; 9-21 Fargo-Moorhead, EGA; 9-23 St. Louis Co., BL, DB, RBJ; latest 11-11 Lyon Co., PE, Nobles Co., HSH and Stearns Co., KE; 11-12 Chisago Co., WHL.

Snow Bunting: earliest 10-6 Lac Qui Parle Co., JAH; 10-7 Lyon Co., PE; 10-8 Cook Co., RLG; 10-10 Roseau Co., PEB; 10-11 Becker Co., JAH.

SUMMARY: The fall migration was rather unspectacular as a whole, although three unusual species, the Ferruginous Hark, Western Sandpiper and Red-shafted Flicker turned up, almost expectedly. A number of interesting late dates were logged (i.e., Eared Grebe, Black-crowned Night Heron, most flycatchers, Catbird, Hermit Thrush, most vireos, half-dozen warbler species, etc.), thus instilling some interest in an otherwise lackluster migration. Snowy Owls seemed to start a repeat of their invasion from the past winter, further augmented by numerous reports of the Black-billed Magpie in the northern counties. The Gray Jay and Boreal Chickadee were reported in the Twin Cities area. Most interesting to me was the number of Black-throated Blue Warbler reports from Washington County!

ADDENDA:

Fall Season, 1966

Double-crested Cormorant: 11-8 Pope Co., 2, RPR; latest date by a month.

Summer Season, 1967

Piping Plover: 6-13 Rocky Pt., Lake of the Woods, acted as if nesting, PEB.

Solitary Sandpiper: 6-28 Lake of the Woods Co., 4 mi. S. Williams, PEB; date and locality suggest possibility of nesting?

Northern Phalarope: 6-2 Mahnomen Co. and Clay Co., RPR, KE.

Indigo Bunting: nested in Lake Co., RK.

CONTRIBUTORS: ACR, A. C. Rosenwinkel; AWP, Mrs. A. W. Peterson; AWR, Agassiz Natl. Wildlife Refuge staff; BL, Bill Litkey; CFC, Corinne F. Christensen; CKS, C. K. Scherck; DB, Don Bolduc; DGM, Dr. and Mrs. D. G. Mahle; DS, Dave Sovereign; DW, Dr. Dwain Warner; EDK, Earl D. Kopschke; EGA, Mrs. Elizabeth G. Anderson (compiler for Fargo-Moorhead area); EHH, Emmett H. Hermanson; ELC, Elizabeth Campbell; EWJ, Mrs. E. W. Joul; FL, Fred Leshner; FN/MAS, Fran Nubel for Mpls. Aud. Soc.; GES, George and Evelyn Stanley; GNR, Dr. George N. Rysgaard; HM, Harriet Micensky; HSH, Helen S. Hatlelid; JAH, John A. Hart; JCG, Janet C. Green; JGH, John G. Hale; JF, Jim Frates; JLS, John L. Schladweiler; JNG, John Green; JO, Jane Olyphant; KE, Kim Eckert; KS, Koni Sundquist; KWE, Karen and Whitney Eastman; LAF, Mrs. Loren A. Feil; LJM, Dr. L. J. Moriarty; LSR, L. S. Ryan; MEH, Mrs. Ed Harms; MHM, Mary H. Muehlhausen; MIG, Maury and Isabel Goldberg; MK, Maria Krogseng; MOP, Mrs. Oliver Peterson; MSB, Mrs. Steve Blanich; OAR, Orwin A. Rustad; OAS, Dr. O. A. Stevens; PBH, Dr. P. B. Hofslund; PE, Paul Egeland; PEB, Paul E. Bremer; RAK, Ruth Ackley; RBJ, Robert B. Janssen; RDT, Rachel D. Tryon; RJC, R. J. Christman; RK, Ruth Kuchta; RLG, Robert L. Gambill; RLH, Ronald L. Huber; RN, Ray Naddy; SW, Sadie Whitesel; TN, Tom Nicholls; VL, Violet Lender; WH, Mr. and Mrs. Wayne Hawkinson; WHL, William H. Longley; WJB, Dr. W. J. Breckenridge; WWL, Mrs. W. W. Lundgren. 480 State Office Building, St. Paul, Minnesota 55101.



Our thanks are extended to Shelia Cunningham, 14 Lake Ave., White Bear Lake, Minn. for providing this and other line drawings appearing in this issue of *The Loon*.

M.O.U. TREASURER'S REPORT

CHECKING ACCOUNT

Cash on hand Jan. 1, 1967.....\$ 940.61

Receipts:

M.O.U. Dues	\$2,903.00
Affiliate Club dues	135.00
Profit from Duluth Dinner (Sept.)	29.80
Profit from Dec. Meeting.....	109.75
Check-lists	28.95
Transferred from Savings	561.00

Total Receipts \$4,708.11

Disbursements:

Craftsman Press and Curle Printing (4 LOONS)	\$2,393.25
Newsletter Expenses	132.15
Craftsman Press, Endowment Letter and Stationery	8.65
Membership Cards	90.65
Postage and Postal Permit	18.33
Mrs. John Green, Research and Records, Postage and Supplies..	187.07
Bank Charges	35.31
Miscellaneous Expenses	13.85
Transferred to Savings Acct.....	23.42
	1,060.00

Total Disbursements \$3,962.68

Cash on hand Jan. 1, 1968.....\$ 745.43

SAVINGS ACCOUNT:

Endowment Fund	\$ 951.00
Salt Lake Fund	60.00
Life Membership	100.00
Dr. O. S. Pettingill, Jr.	
Donation	100.00
Mr. Wm. Pugh	
Interest	47.50
From Checking Account	439.00

\$1,697.50

During the fall of 1967, John Meyer, a biology major at St. John's University, began going through the specimen collection at the College of St. Benedict in near-by St. Joseph, Minn. As a favor to Mr. Zaczkowski, the head of the biology department there, John was double-checking the identification of the specimens, somewhat less than a thousand birds. Aside from a few birds contributed by private collectors, all of the specimens were picked up on campus. Four years earlier a fine arts building was built on campus which had a glass passageway running east and west between two wings of the building. During migration several birds would fly into this glass and be killed. Later they would be picked up and brought to the biology department, where they were injected with formalin (not skinned and stuffed) and identified (but not dated). Since there had been no competent ornithologist to identify these specimens, John found several to be incorrectly identified or not identified at all.

During November I became aware of John's work, and one morning I looked over the collection with him for the first time. Things appeared harmless enough in spite of the formalin injections, the mis-identifications, and the lack of collecting data, since the collection was meant only for the private use of the biology department. But as I glanced over one tray of birds, one specimen immediately caught my eye — an unmistakable adult Say's Phoebe. I called it to John's attention, and he said he had noticed the bird earlier but had hesitated to identify it. We showed the bird to Dr. Ford of the St. John's biology department, who did his graduate work in ornithology, and he said there was no doubt about it being a Say's Phoebe.

In the December, 1965, issue of *The Loon*, Ron Huber noted in his report of the 1965 spring season: "Although this species (Say's Phoebe) has not yet been recorded in Minnesota, the initial event cannot be far away. Numerous observers saw one at Fargo on May 10 . . . and it

PHOEBE AND GROUND DOVE SPECIMENS FOUND

breeds regularly in northwestern Iowa." Since then *The Loon* has not listed any reports of this species through the summer of 1967. Therefore, the specimen at St. Benedict's apparently represents the first record of this species in Minnesota. But I must stress the word "apparently" because, in spite of Mr. Zaczkowski's assurance that there is no doubt the bird was picked up on campus (sometime during the first half of May, 1967, he added), there is always the possibility that the bird was picked up in another state or county and mixed up with the birds from the fine arts building. As I mentioned before, there are a few birds in the collection that are not from campus, but these are all marked as such and skinned and stuffed rather than injected. Therefore if this collection were consistent and accurate (which it is not in some respects), one could assume that this unmarked, injected Say's Phoebe is indeed from St. Joseph, Minn., taken during May, 1967, representing Minnesota's first record of this species.

By way of postscript to this unusual find in an unfortunately unscientific collection, I later offered to identify the birds in the biology department's freezer that had not yet been identified or injected. Mr. Zaczkowski readily agreed, and I began working on these birds during January, 1968. After going over the kills from campus, I started working on the hundreds of birds that had been donated by Dr. Breckenridge from the Museum of Natural History when he gave an Audubon Film-Lecture at St. Benedict's during the 1965-66 school year. Aside from a few random birds from the Twin Cities area, all of the specimens that were marked with a date and location were kills from TV towers at Rochester and Westport, Minnesota, and Eau Claire, Wisconsin. Unfortunately there were still a fair number of birds without data, and it was among a group of these unmarked birds that I found an unmistakable Ground Dove. Bro. Ignatius Dean, from the St. John's Abbey and an experienced birder and collector from the Bahamas,

was with me at the time and concurred in the identification since he is very familiar with the bird from home.

Though the origin of this specimen is unknown, I think it is safe to assume that the dove was taken either at Rochester or Eau Claire in 1961 or 1962, because it was found among marked specimen groups taken from these two locations in groups taken from these two locations in these years. It is unfortunate that the specimen cannot definitely be attributed to Minnesota, but I'm positive the bird was taken no farther away than Eau Claire, only 80 miles east of St. Paul. In either state, as far as I know, this Ground Dove specimen probably represents a first state record. The nearest occurrence of this species that I know of is a specimen taken in southern Michigan a few years ago, the first record for that state, according to Dr. Ford.

The specimen at St. Benedict's has since been injected and now shares the unfortunate and questionable status as the Say's Phoebe. About all I can do now after finding two such unusual specimens is to make sure Mr. Zaczkowski begins an organized system of documenting the specimens he receives, to avoid future similar incidents. *Box 465, Colleville, Minnesota.*

EDITOR'S NOTE: Dr. Breckenridge and Dr. Warner of the Museum of Natural History felt that it was very unlikely, if not impossible, for the above mentioned Ground Dove specimen to have been picked up at either the Eau Claire or Rochester TV towers. All specimens taken at these tower kills were inspected by Dr. Warner, his staff or students familiar with birds of this area. Dr. Warner felt certain that if a Ground Dove had been picked up it would have been noticed immediately. Because of the lack of definite information surrounding the actual location of the discovery of the above two species, one is forced to conclude that they are most interesting specimens but further that the two species cannot be added to the state list until additional information is secured.

Since hunting has been banned in the area of the Mpls.-St. Paul International airport, certain forms of wildlife have had a real chance to "come back." In spite of the nearness of civilization, mammals and birds that we normally associate with the true wilderness or the wide open prairie country almost abound. Jack rabbits in groups of three to eight are not uncommon, while recently I saw one of 14. Deer wander up from the river bottoms at various intervals and great flocks of Horned Larks drop in in Spring. A Snowy Owl makes annual visits to the area during the winter months evidently finding more food than in his usual northern haunts.

The area between the airport and the ball park abounds in pigeons that nest under the various bridges over the freeway. These along with an abundance of mice keep this owl from molesting the hundreds of Ring-necked Pheasants that abide in the area. Grey and Red Fox may be seen at regular intervals in the bush area near the national cemetery or calmly running in the open along the various runways of the airport. One very tame fox lives on the east side of the airport. He is seen very often sitting and watching the planes, calmly scratching himself, only moving along when a plane comes within 100 to 200 feet of him.

It was quite surprising to see a dead Opossum lying on the side of the freeway adjacent to the airport. It has been only in the last several years that the Opossum has been seen this far north. Evidently this animal like the Cardinal is slowly working his way northward. Only a few years ago the northern most habitat of the Cardinal and the Opossum was in the vicinity of LaCrosse. Now we see and hear the Cardinals commonly as far north as Chisago City and Lake Mille Lacs.

Up until last year the soybean and cornfields south of the airport were not plowed under in the fall. As a result hundreds of Mallards made daily visits to these fields throughout the winter even when snow covered. With the closing of the post road around the airport to the southwest it will be more difficult for visi-

tors to observe the wildlife but there are a few service roads and frontage roads still available for observation.

During the mating season of the fox (February and March) these interesting animals may be seen in broad daylight as they seem to throw caution to the wind at this time. The rest of the year one catches glimpses of them during the twilight hours of morning and evening. It is unfortunate that this beautiful animal is hunted and trapped so heavily. Old Reynard plays an important role in the balance of nature of the country side. There are so many pheasants in the vicinity of the airport that some of us feed them corn to help them survive the winter. A few more foxes would keep the population of pheasants in balance with the food supply.

Other animals seen in the airport vicinity are Raccoons and Skunks, in abundance, while weasels leave their tracks in the snow as they cross the service roads. Once in a while we see a dead Mink or Muskrat that has come up from the river bottoms and has become confused in the maelstrom of the freeway traffic. An interesting feature is the fact that the jackrabbits with their huge sensitive ears seem to be unaffected by the noises of the jet age. They sit in groups near the southeast end of the runways where engines are tested, seemingly without fear. In fact very often they may be seen sitting bolt upright with their ears straight up apparently watching the aircraft. Mechanics are required to wear special ear guards while working around the jets. It would be interesting to know whether Nature has protected these animals from these high-pitched sounds or have their ears actually been damaged. The greatest number of these animals at the airport seem to congregate around the test cells and the runway areas — for what reason we do not know.

Not many persons would think of visiting the airport to observe wildlife instead of planes, but for those who do I'm sure the trip would be worthwhile. 6740 Harriet Ave. S., Minneapolis, Minnesota.

Notes of Interest

1951 Whooping Crane Record — On November 7, 1951, while I was refuge manager of the Rice Lake National Wildlife Refuge, we decided to bring in some of our pinioned Canada Geese for the winter. Since Rice Lake has an average depth of two feet, with no currents or springs, it always freezes early. On this date, we were driving our pick-up truck across five inches of ice. We approached to within one-half mile of the small patch of water kept open by the geese. Using several black labrador retrievers, we proceeded from there on foot.

Suddenly, a tall, long-legged white bird with black wingtips and a red face, stood up nearby and began walking towards us. It had been camouflaged against the white background and we hadn't noticed it until it stood up on the ice. I had my binoculars handy, but of course they weren't necessary to identify an adult Whooping Crane. As the bird walked shakily towards us, we noticed that the left leg was favored and we concluded that it was injured. The bird's "knobby knees" were noted through the binoculars. Finally, at our close approach (and his!) the bird took flight and headed southeastward, with the injured left leg dangling.

Later I wrote to Mr. Julian Howard, Manager of the Aransas Refuge and a good friend, and asked him if there were any adult Whooping Cranes missing. I told him of our unusual observation. He wrote back that one lone adult, *with an injured left leg*, arrived after all the others on November 18, just eleven days after our observation!

Some time afterward, at a Veterans of Foreign Wars Post near Rice Lake, we mentioned this to some of the old settlers, none of whom recognized the name Whooping Crane. Two old brothers who farmed nearby, however, apparently recognized our description because they asked, "What ever happened to those big, white, long-legged birds that fed in our fields for a few days, spring and fall, with the geese? We don't ever see them any more." While it might be hard to evaluate the significance of the old-timers' remarks, we can speculate that perhaps Rice Lake lay along one of the ancestral migration routes of this magnificent species? *Les Dundas, U.S. Fish & Wildlife Service, 1006 West Lake Street, Minneapolis, Minn. 55408.*

Myrtle Warbler Winters in Edina — On December 23, 1967, a Myrtle Warbler appeared at one of our feeders, a tray filled with sunflower seeds and cracked corn at which American Goldfinches frequently feed. After verifying that it was, indeed, a Myrtle Warbler rather than a more likely visitor such as a Pine Siskin, we added suet crumbs, meal worms, assorted chopped berries, and peanut butter mixed with chopped lettuce and bird grit to that tray and others. The warbler, we were unable to determine whether it was male or female in its winter plumage, remained in the area feeding daily at either our feeder or that of our next door neighbors until February 14, 1968, the last day it was seen by either of us. Although the weather was fair with moderate winds on February 14 and 15, on February 16 light snow fell and strong NNW winds developed gusting up to 47 miles per hour while the temperature dropped to around zero. This may have been too much for the warbler. *Mr. and Mrs. John D. Telfer, 5717 Hawke's Dr., Edina, Minnesota.*

Catbird Winter Record — After nesting in a lilac bush in the yard of Mr. and Mrs. Robert W. Manning, 5708 Warden Ave., Edina, Minnesota, a single Catbird remained behind when the others migrated this winter. Although I didn't see the bird myself, Mrs. Manning reports that the Catbird thrived on crumbs of suet, sunflower seeds and peanuts dropped from the feeders until about the middle of January, 1968, when it was last seen. *Mrs. John D. Telfer, 5717 Hawke's Dr., Edina, Minnesota.*

Evidence of Upland Plover Nesting in St. Louis County — Upland Plover have been observed in the area north and west of the Hibbing-Chisholm Airport almost

every year since 1959, when we first definitely identified them. We recognized them easily now by the way they land on the top of telephone poles. They ease themselves down and stand there for a moment with wings still raised, then fold them slowly. A series of open fields surrounds the airport, making a total area of about 10 square miles of open grassland and pastures.

On July 14, 1966, about 8:15 a.m. my daughter, Georgia, and I saw a pair of Upland Plovers on fence posts lining a pasture to the west of the airport. We drove by slowly as they hedge-hopped from one post to another ahead of us for approximately 100 ft., then reversed their direction and returned to about their original posts. We could not stop then, but I returned about 20 minutes later and they were still there. I drove up to within 25 ft. of them this time and noticed they didn't want to leave that spot. One of the birds flew to the ground and ran around a bit and returned to the post. I stopped and looked at them with 7x50 binoculars. Both birds then flew to the ground and started running away from the fence. Next came the real surprise! In between the two of them was a third one - about half their size with rather fluffy plumage though it generally looked like the other two. I watched for about another 5 minutes. One bird stayed with the young sneaking around the pasture hummocks, the other flew to a light pole. As I glanced at the flying bird, the other two disappeared and I decided to bother them no further. Though we saw one or two on either fence posts or the light poles along Highway 37 up to July 28, we did not see the three together again. On July 11, 1967, a pair was seen standing on top of two very tall transformer poles about 1/2 mile west of '66 position, but no young were seen. *Mrs. John Micensky, Star Route 4, Box 244, Hibbing, Minnesota.*

Gray Jay in Edina — On November 19, 1967, we had some high-powered bird watching in our yard when a Gray Jay swooped in and snatched a large piece of suet from our feeder. He left the yard with one of our resident Pileated Woodpeckers in hot pursuit. The pair of large woodpeckers appear either together or singly nearly every day and graciously share the suet with their smaller brethren, the Downys, Hairys and Red-bellieds as well as the Black-capped Chickadees and White-breasted Nuthatches. However, they apparently are not going to tolerate this invader from the North.



The Gray Jay returned several times on November 19 and was seen once on November 20 and has not been seen since. *Whitney and Karen Eastman, 7000 Valley View Road, Edina, Minnesota.*

Western Tanager Record From St. Louis County — The first record of the Western Tanager for St. Louis County was a male that fed on oranges at several feeding stations near the Congdon Park area of Duluth from May 19 through May 25, 1967. I saw it at the William Arndt feeder on May 22nd and took colored slides of the bird as did Mr. Arndt on that same day. The slides are unfortunately too dark to be printed in *The Loon* but the bird is quite identifiable in all our pictures and copies are on file in the Museum of Natural History of the University of Minnesota. Before this spring there were only four records of this species for the state, all of them sight observations in May in Hennepin County.

A description of the bird from my field notes taken on May 22nd follows: Medium-sized bird about size of Evening Grosbeak with heavy tanager-type bill. Breast, belly and flanks - medium yellow (duller than the yellow of an Evening Grosbeak. Head: forehead, part of crown, chin and side of face below eye forward to bill - orangish red, brightest on crown; ear patch - greyish yellow; rest of face, including area around eye - light yellow; rest of crown and nape - yellow. Back was black and rump, yellow. Wings - blackish brown with two wing bars, those on the lesser coverts being yellowish. Tail - blackish brown and forked. *Janet C. Green, 9773 N. Shore Drive, Duluth, Minnesota.*

Western Tanager Record From Cook County — Length of time that bird was observed: about three minutes, on May 20, 1967.
Distance from the bird: 45 feet.

Light conditions at the time of observation: Bright sunshine.

Optical equipment used: 8 power binoculars.

Description of the bird: On May 20, 1967 my wife was observing some birds in the dogwood bushes alongside the driveway. Coming into the house she called to me to come and see a red and yellow bird along the northwest side of the driveway. Quickly picking up my field glasses, I went into our north bedroom. Looking out the window I observed several birds lighting and flitting from the ground to the dogwood bushes. One particularly was intriguing with a red head, black wings and yellow underparts (real canary yellow), and somewhat smaller than a Robin. I observed this bird's meanderings for several minutes before he took off. Immediately following I referred to Peterson's field guide for identification. The frontispiece confirmed the bird to be a male Western Tanager. During the observation I saw several other birds with dull colored backs and yellow underparts with this brilliant marked individual but could not identify them positively as female Western Tanagers. However, the size of the bird and the red head similar in coloration to the red cap of the Red-bellied Woodpecker convinced me it was a male Western Tanager. *Robert L. Gambill, Lutsen, Minnesota.*

Western Tanager Record From Becker County — Length of time that bird was observed: Several minutes on May 18, 1967, and again on June 3, 1967, for several minutes near the same location.

Distance from the bird: Less than 50 feet.

Light conditions at the time of observation: Bright daylight both dates.

Optical equipment used: 8x40 field glasses.

Description of the bird: At first glance I assumed this bird to be a female Baltimore Oriole. However, after watching it and taking in more detail I realized I had never before identified this bird. The heavier, shorter, lighter colored bill and the lighter, olive-green back distinguished it from the orioles. The wide, yellowish wing-bars distinguished it from the Scarlet and Summer Tanager. We have both the Baltimore Oriole and Scarlet Tanager here in the spring and early summer and I am readily aware of their characteristic features.

Of course, seeing what appeared to be the same bird about two weeks after the first observation convinced me this bird was a Western Tanager. I had hopes that perhaps it would nest in the area and I watched closely for an appearance of the male. I did not see the bird again after June 3, 1967. *Lester J. Koopmann, Tamarac National Wildlife Refuge, Rochert, Minnesota.*

Yellow Crowned Night Heron Reported From Hopkins — We live at 9 Mill Road, in an addition called "Bellgrove," north of Hopkins, Minnesota, and our property adjoins the Oak Ridge Golf Course. Specifically our lot (about 1½ acres) borders the 13th fairway, which includes a water-hole. On the 31st of May last year, 1967, a neighbor, who can see the water from her window, called to say there was a most unusual bird on a rock in the water. I went immediately through our "woods" (mostly Oak trees) and there I plainly identified this bird as a Yellow-crowned Night Heron: "He had a black head, but with a 'whitish' cap, and very white patches below his eyes (making a startling contrast!) and a 'wispy' white plume flowing from the back of his head. His body was a lovely shade of medium gray, and very smooth around his neck and down the front of his body, whereas his back was rougher looking and sort of streaked or speckled with a darker gray, and maybe some black feathers. His legs were quite long, and yellow. He appeared to be about 2 feet (or 24 inches) tall. All in all he was a very handsome bird." After thoroughly observing him both with my binoculars and naked eyes, I called Mr. and Mrs. William W. Cullen, good friends of mine, and avid "birders," and they both came and also identified him as a Yellow-crowned Night Heron. The heron stayed in the same spot for a while, then flew to another spot in the pond, and then a dog barked on the golf course and he flew away in an easterly direction. *Mrs. Theodore P. Burton, 9 Mill Road, Hopkins, Minnesota 55343.*

Observation of a Krider's Hawk — On April 8, 1967, R. A. Grant and I observed a pair of Red-tailed Hawks near Lake Traverse, Traverse County. One of the pair had almost pure white underparts, a very light, orange-pink tail, a brownish tan back, heavily mottled with white, and a white head. The other bird of the pair was a normal colored Red-tail. R.A.G. and I identified the white individual as a *Buteo jamaicensis krideri*, a subspecies of the Red-tailed Hawk. *John A. Hart, Morris, Minnesota.*

Notes on the Boreal Chickadee — One interesting note on the Boreal Chickadees, besides the fact that they remained so long in the Morris area, is that I heard an interesting and unusual song from this species. In all the references which I checked, the only information I could find on the song of the Boreal Chickadee was that concerning the usual *pst-zee-zee* of this species. Robbins and Brunn in *Birds of North America*, 1966, say that the Boreal Chickadee has no whistled song. On April 26, 1967, at Morris, while watching the Boreal Chickadees, I heard one singing the usual *pst-zee-zee*, and then break into a very short warbling song, very similar to

that of the Black-capped Chickadee. The song may be depicted as — —, where each dash indicates a note in the song. The highest note, as can be seen, is the second note of the song.

This is the first time I have ever heard the Boreal Chickadees sing in the manner indicated above. Could it be some sort of spring nuptial song? According to Bent, the Acadian Chickadee, an eastern subspecies of the Boreal Chickadee, which has a range that does not include Minnesota or western Ontario, has been known to sing in the manner indicated above. *John A. Hart, Morris, Minnesota.*

Blue-winged Warblers Observed in Sherburne County — While observing the warbler migration along the Mississippi River, six miles south of St. Cloud, in Sherburne County, on May 21, 1967, I saw three Blue-winged Warblers. The bluish-gray wings with the white wing bars, were easily seen, as were the greenish backs, striking yellow bellies and breasts, and the black line through the eye. The locality of this observation is north and west of the usual range of this species in Minnesota. As the flora on parts of the Mississippi near St. Cloud are somewhat similar to the flora in the normal Minnesota range of this species, it can be assumed that the small flock which I observed followed the Mississippi north to the area where I saw them. It is also interesting to note that last spring, Blue-winged Warblers were seen near St. Cloud (*The Loon*, Vol. 38, No. 3). *John H. Hart, Morris, Minnesota.*



Loggerhead Shrike Seen on Excelsior Christmas Count — On December 30, 1967 during the course of the Excelsior Christmas Count, Les Dundas, Goodman Larson, Jim Coyner (of the Bureau of Sports Fisheries and Wildlife) reported that they had seen a Loggerhead Shrike along a county road near Boiling Springs, Barden, Scott County, Minnesota. The following is a report of the observation given to me by the three men. A shrike-like bird flew down the road in front of their car and landed in the top of a small cottonwood tree. They assumed the bird was a Northern Shrike because of the season, but they stopped for a positive identification. The day was mostly clear, the sun was behind them and conditions were excellent for observation. The observation was made from 50 feet or less. A clear white breast was noted with no barring of any kind. The bill was solid black, no light lower mandible. Mr. Dundas felt the bird was smaller than a Northern Shrike but Goodman Larson felt this was very difficult to determine without having an actual comparison side by side of the two species. No mention was made during the conversation about the face mask. *Robert B. Janssen, 1817 W. 59th St., Minneapolis, Minnesota.*

Late Dates For the Prothonotary Warbler — On August 12, 1966, Ruth Ackley recorded a Prothonotary Warbler near the west end of Roberts' Sanctuary in

Minneapolis. On September 3, 1967, just one year and three weeks later, when we were birding together at almost the identical spot, we observed another Prothonotary Warbler as it moved about, gleaning insects and worms from the trees and shrubs. We observed the bird from all angles for at least ten minutes with 9x35 binoculars. The light was good, the sun was at our backs, the bird was fifteen to eighteen feet from the path and somewhat above eye level. We noted the size to be larger than that of the Nashville Warbler we had been watching, the long dark bill, the golden head, neck and breast, the plain blue-gray wings and tail, the greenish yellow back, the white undertail coverts. It was considerably duller than the male in spring plumage so we concluded that it was an adult female. Because of yearly observations of and familiarity with the species, we would find it difficult to confuse this one with any of our other Minnesota warblers. *Fran Nubel, 2000 Cedar Lake Blvd., Minneapolis, Minnesota.*

EDITOR'S NOTE: The above two dates, especially September 3rd, are extremely late occurrences for the Prothonotary Warbler in Minnesota. Most birds have departed by mid-July, making this species one of the earliest to leave the state.

Possible Gyrfalcon — On October 22, 1967, Ruth Ackley and I were on our way to Duluth. Few birds were flying, but we did note a Rough-legged Hawk on State Highway 107. At 3:30 p.m. as we approached Interstate 35 on State Highway 23 in Pine County, south of Hinckley, we observed a large white bird close to the ground in an open field with scattered bushes and a few trees. At once we saw that it was not a gull because the sharply pointed triangular wings and long, narrow pointed tail were those of a falcon. Mrs. Ackley repeatedly stated, "I have never seen that bird before." However I had observed one on March 5, 1963, at Minnesota Golf Club in company with Mary Muehlhausen. In the bright sunlight the bird appeared entirely white except for the black-tipped primaries. The flight was unlike that of the Snowy Owl. It stopped suddenly and hovered low over the ground for a few seconds, then abruptly darted away over the rise and out of sight just as suddenly as it had appeared. Immediately we drove into the field a short distance, scanned the area, came out again and entered the freeway, driving south for a few miles searching and hoping to overtake the bird. We never saw it again, but feel certain that we saw a Gyrfalcon. *Fran Nubel, 2000 Cedar Lake Blvd., Minneapolis, Minnesota.*

Observation of a Yellow-billed Cuckoo in Hubbard County — I make daily birding observations from June to September on both Lakes Belle Taine and Fifth Crow Wing, which are located in Hubbard County about eight miles east of Park Rapids. In order to appreciate the birding opportunities in this area, one must understand something of the terrain:

Lake Belle Taine, the last of the Mantrap Chain, is a beautiful, clear lake with a sand bottom, several bays and a most interesting shore line. It runs about six miles southeast to northwest and ranges in width from two and a half miles to two hundred feet. There is no outlet to this lake which drains by seepage to the Crow Wing Chain, the level of these lakes being about thirty-eight feet lower than Belle Taine.

Although I observe much interesting bird life on Belle Taine, the hike of a half-mile to Fifth Crow Wing, which I take at least once a day all summer checking several special spots, takes me into an entirely different habitat. Here you find swampy areas, isolated thickets, a hill or two, dense mixed woods, open spaces, and underbrush in the right places. While there are a few feeding stations at year-round homes, the birding is generally "what comes naturally," something I find very appealing. This makes for fascinating tree and plant study as well. Here we find the American Redstart, Yellow-throated Vireo and cuckoos breeding (to name a few), which are not generally seen on Belle Taine. Bordering these woods is a field planted to Red Pine where the Clay-colored and Vesper Sparrows nest.

On July 13, 1967, I made a cursory check of one area bordering a cottager's new

road. (It was a dismaying experience to see my favorite view of White Birch and Aspen bulldozed out of existence.) There on a branch of a jack pine about five feet up sat a Yellow-billed Cuckoo with a mouthful of food for his hungry young. Butch, my summer hiking companion, is a most sensitive Labrador. We stood very still for what seemed like a minute and the cuckoo looked right back. *His bill was very yellow indeed!* I noted that the back seemed slightly hunched and the whole attitude of the bird seemed wary even though it kept its position for so long. I was thrilled to see the distinctive tail pattern with the large white spots contrasted with black, especially since I could observe it at such length. While I often see and hear cuckoos in this area. I have never seen one of either species sitting so still and unafraid. Finally the bird took off into the brush. I followed it for a few steps, then decided to let it alone even though I very much wanted to locate its nest, since my project last summer was location of nests and young. The next day I saw a cuckoo in flight at that spot but could not determine the color of its bill. I visited this area many times afterwards and often heard cuckoos. This was an interesting observation but it was just one of many beautiful birding experiences I have had on Fifth Crow Wing. *Mrs. Leslie Welter, Jr., P.O. Box 579, Moorhead, Minnesota.*

Black-backed Woodpecker Seen in St. Paul — There was a Black-backed Three-toed Woodpecker on the St. Paul campus of the University of Minnesota on Friday, February 16, 1968. It was foraging on the outer branches of a hackberry near Peters Hall. I observed it without binoculars but at a distance of only about 15 feet and saw both the barred flanks and black back very plainly. I did not, however, notice whether it had a forehead patch or not. I know the species well from New York and the Lake Itasca region. *Marshall Howe, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*



BOOK REVIEWS

WORLD OF THE GREAT WHITE HERON by Marjory Bartlett Sanger. Line drawings by John Henry Dick. 41 black and white drawings. 144 pages. Devin-Adair Co., publisher, 23 East 26 Street, New York, N. Y. 10010. 1967. \$10.00.

THE WORLD OF THE GREAT WHITE HERON is a good illustrious, and informative history of the Keys using the Heron as a focus and the Keys as his world. Mentioning all the animals and other birds found there, makes the reader realize the abundance of wild life on the Keys.

There is a wealth of interesting and educational material as we read about the underwater world of the coral, the evolution of the fish and crabs; the discovery of the Gulf Stream; the history of the hurricanes, their destruction and havoc, and the rehabilitation that occurs.

The very descriptive terms used by the author in describing all living things in and around the Florida Keys is sure to interest many readers whether they have visited the Keys or not.

John Henry Dick did a very fine piece of work in establishing the attitudes and poses of the birds, animals, and sea life in their natural habitats.

Perhaps the cost of the book is not expensive if the reader dwells a moment on the many pieces of gold and silver that are buried in and around the coral reefs, making the Keys what they are today.

—Don Bolduc

SEABIRDS OF THE TROPICAL ATLANTIC OCEAN by George E. Watson, 120 pages, 12 black and white plates, Smithsonian Press, Washington, D.C., 1966, \$3.95.

Published primarily as an identification manual for an area of the world not covered by readily available references, "Seabirds of the Tropical Atlantic Ocean" combines in small format information that has previously only been available in five reference works, two of them extremely bulky.

The content of the book is presented in four distinct parts, the first of which generalizes the distribution of seabirds, the conditions of the water, identification, recording of information, the preservation of the specimens. The second part consists of twelve double-page black and white plates of in-flight drawings of the various seabirds. The main body of the book, deals in detail with the identification of the one hundred and fifteen seabirds encountered in the tropical Atlantic, listing for each the characteristics of the individual bird, flight, food, habitat, and distribution. The fourth part, or appendix, is a series of lists of birds to be found in various and specific areas covered in this book.

The plates are well-drawn, but diagramatic, with phases of breeding, non-breeding, and immature plumages represented well. Plate eleven details those bill characteristics where these are necessary for identification. The only criticism of the plates is a lack of fine detail of those differences that one needs to distinguish similar species.

While not produced for the provincial student of birds, this volume, because of its convenience and relatively low price, should be of interest and value not only to those who journey to the South Atlantic but to those who travel to Florida and the Caribbean and want ready identification of the seabirds.

—E. M. Brackney

TOP FLIGHT, A Speed Index for Water Fowl, by John A. Ruthvin and William Zimmerman, 263 color illustrations, 112 pages, 1967. \$4.95.

The authors describe their book as the first comprehensive color identification and reference book of North American Waterfowl for the waterfowl hunter as well as a sportsman conservationist. It covers 62 separate species. Rapid reference for species identification, using the marginal colored bands of the book, directs

the reader to the proper section by referring to the dominate color of the bird being identified. The book contains 263 illustrations reproduced in full color. The authors and artists dwell at great length about the authenticity of the plates. They state that no detail was left unattended to to make the illustrations as authentic as possible. The book is divided into two parts which concern what the authors call medium sized ducks, and what they call large sized ducks which include geese and swans. I think this is an unfortunate choice in that some ducks, which are nearly identical in coloration and general characteristics, are not pictured together because of the size difference. The case in point is the adult female Redhead which is described on page 94 as being easily mistaken for the female Ring-necked Duck. However, the picture of the female Ring-necked Duck is found on page 50 and this is described as a medium brown duck and the Redhead as a large brown duck. On the same plate with the Ring-necked Duck we find two scoters pictured which are indicated as medium brown ducks having a length of 19 inches and a wing spread of 32½ inches which corresponds roughly with the wingspread and length of a Redhead which is pictured 44 pages later described as a large brown and white duck. I would prefer to see the ducks listed as medium birds and the geese and swans listed as large birds thus affording the authors a chance to place the ducks in closer comparison on the plates. Having had considerable experience with the regular bird books to which we are accustomed, it is quite difficult for me to find my way through the book. However, to a sportsman and duck hunter who may not be familiar with the current field guides, this may well be just the ticket. However, I do not feel that I should throw away my copy of Portraits of Ducks & Geese of North America and substitute this volume in its place. There are, however, plates that are no doubt unique in colored portraits. Noticeable among these are many molting plumages which have been pictured. The idea of picturing the birds at rest in the water on the left hand plates and in flight on the right hand plates I think is very good. There is a brief description on the length, wingspread, weight, food source, habitat, and voice. But no mention of the range of the birds. An uninitiated person might expect to find all 62 species in his vicinity. The book is bound in hard plastic coated hard cover, sewen binding, pocket sized (4¾ by 11¼).

I think that the purpose of this book is to assist sportsmen and duck hunters in the rapid identification of waterfowl in the field. And I question the ability of the book to stand up to field conditions for an extended period of time. The keys to identification however, are simplified to the point that anyone should be able to use it and in this context the book could serve a useful purpose.

—William Pieper



1968 Spring Field Trip

The Minnesota Ornithologists Union Spring Field Trip is scheduled to be held May 11 and 12th, 1968 in the Beaver Creek Valley State Park. This Park is in an unglaciated area of steep hills and valleys in the southeast corner of the state, located in Houston County.

Register as early in the morning as you wish after arriving at the pavilion inside the park, near the headquarters office. The park is located 3 miles west of Caledonia, the county seat, at the junction of State Highways 44, 76 and 249. Suggestions for lodging in the area are as follows. Early registration are suggested.

1. Camping in Beaver Creek Valley State Park camping area.
2. Hotel Caledonia in downtown Caledonia.
3. Crest Motel and Supper Club, Jnct. TH 44 and 76 at Caledonia.
4. Money Creek Haven at Money Creek Camping Ground, only minutes away.
5. Spring Grove Village House, a small motel a few miles away.
6. Ranch Motel and others at La Crescent, Jnct. 14, 16 and 61.
7. Unlimited lodging at La Crosse, only 20 minutes away.
8. Limited lodging at towns close by such as Houston, Rushford etc.

Further details will be contained in the Newsletter.

LEGG APPLIED OPTICS

Optical Instrument Service and Consulting

We are happy to announce the opening of LEGG APPLIED OPTICS. We have at last consolidated all equipment and operation at 2072 Buford Avenue (Buford at Cleveland across the street from the St. Paul U. of M. Campus mall), St. Paul, Minnesota 55108. We were formerly Legg Optical Repair and Consulting at 887 22nd Avenue S.E., Minneapolis.

We are now offering full service for all makes and models of optical instruments in industrial, ophthalmic, medical, school and sport use as shown below.

In addition to the repair service we offer prototype optical model design and manufacturing (such as Kerr Magneto Optic Apparatus); optical bench facilities for testing; and consulting on mechanical-electro-optical problems.

We can give 10-15 day service on binoculars at maximum unless parts have to be ordered.

We would like to invite you to drop in to inspect the facilities and get acquainted with our services.

Derek D. Legg



M.O.U. ENDOWMENT FUND

In a previous issue of *The Loon* you were asked to contribute to the Minnesota Ornithologists Union Endowment Fund. Our campaign was most successful with over \$600.00 being added to the fund. We, of course, can use further help from each and every one of you. At a recent board meeting of the M.O.U. Officers and Club representatives, many projects were discussed and steps were taken to implement several of them. The preservation of Salt Lake is still a very live project, education programs are needed concerning our Birds of Prey and scholarships are needed by worthy students. Many of these and other types of projects can be realized with your help.

SUGGESTIONS TO AUTHORS

As you all know the editor's job is a voluntary one and to make this job a little easier and less time-consuming I would like to make a few suggestions to authors when they submit articles and notes for publication in *The Loon*.

As editor I would like to encourage people to send articles, notes and observations to me. If possible all articles and notes should be typewritten and double spaced on one side of the paper. This is the only way they can be submitted to the printer. The more material received the better the magazine will be. When submitting observations of birds, either rare, accidental, or difficult to identify please try and follow the suggestions made by Janet C. Green in her article "What Constitutes an Acceptable Bird Record," (*The Loon*. Vol. 36, No. 1, pages 4-6). If photos are submitted with articles they should be clear, *black* and *white prints*. If the author of an article would like reprints please let me know when the article is submitted. Reprints will be furnished at the author's expense. Cost of reprints depends on length of article and number wanted.

CHECK-LIST OF MINNESOTA BIRDS

The newly revised check-list of Minnesota birds is still available. This list contains 292 regular species and 23 casual species found in Minnesota. It is designed for use in the field and can be easily contained in any of the latest "Field Guides." The cost is 5¢ each plus 5¢ postage, or 50 for \$1.25 plus 15¢ postage. All members of the M.O.U. and their bird-watching friends should be using this new list.

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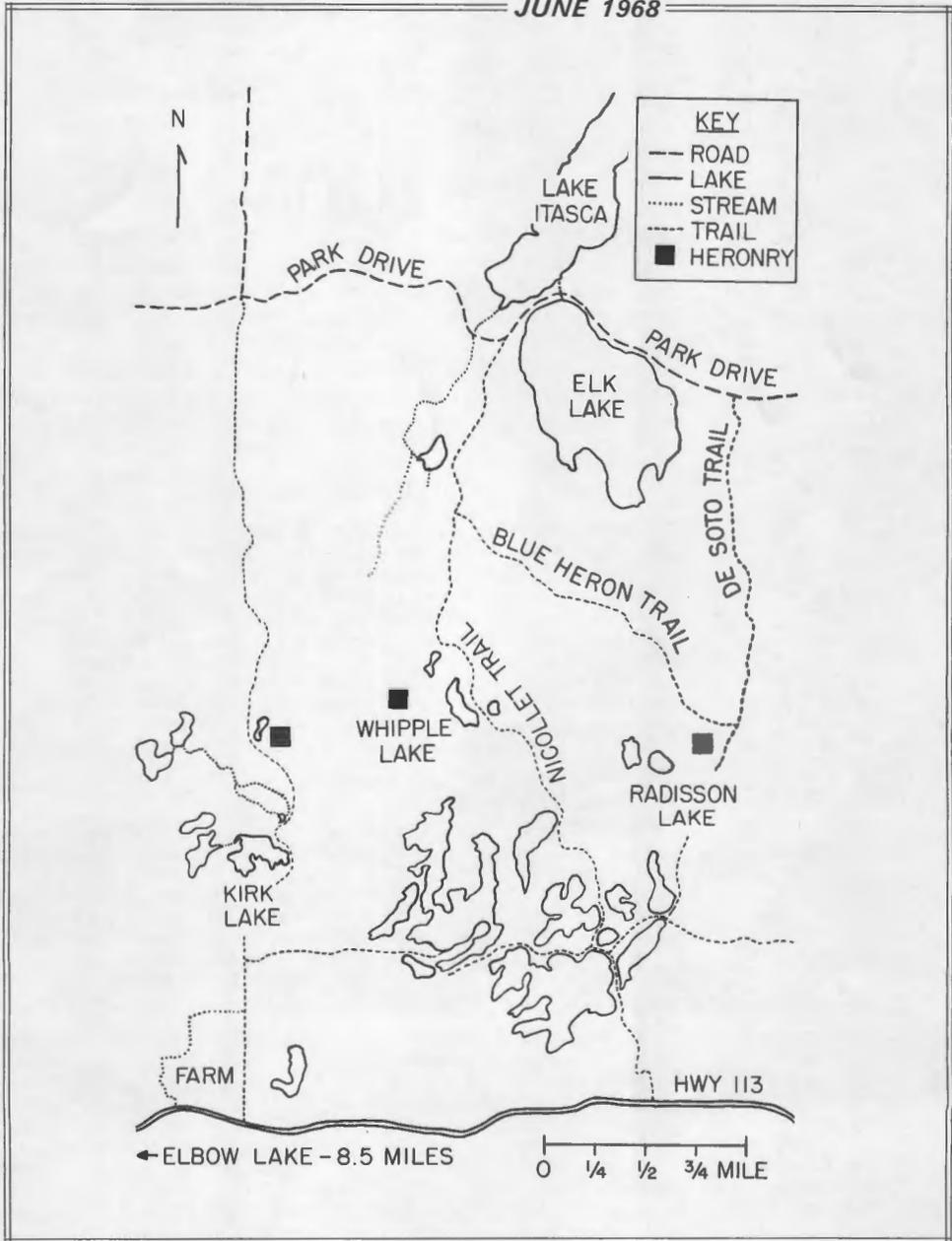
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THE LOON CRY

The study of bird name origins could fill a book. In the last "Loon Cry" I began a brief analysis of some bird name origins and mentioned the "well known" example of the Prothonotary Warbler.

Actually, the name "Prothonotary" is of Greek and Latin origin; the "proto" is Greek for "first in time," and the "notarius" is Latin for "secretary." So the word literally translated means "earliest secretary." How did this formal title get attached to a beautiful golden yellow North American warbler?

Apparently the name "Protonotaries" was applied to a group of twelve Roman Catholic prelates in the fifteenth century. They were secretaries to the Pope, and in charge of keeping records of papal acts, beautifications, and canonizations. They are said to have worn bright yellow robes. Someone who saw the bird and knew of the Protonotaries Apostolic tagged the bird with a rather strange label after the resemblance of yellow bird to yellow robes.

Other names for birds have no such formal classical origin. The names "widgeon," "scoter," and "godwit" are of unknown origin. The name "widgeon" resembles the name "pigeon," perhaps French in origin, but there is no proof of French origin for "widgeon." A variation of "scoter" is "scooter," perhaps after the way in which these birds fly or scoot low over the water.

These names, together with "teal" and "scaup" of Dutch and German origin, plus "bufflehead" "curlew," and "whimbrel" bear little resemblance to the Latinate "prothonotary." The word "scaup" may come from the German "skala" for shell, after the fondness of the Scaup Duck for shellfish. The word "bufflehead" is a dialect word for a blockhead or fool, though the Bufflehead is no more foolish than other ducks. The names "curlew" and "whimbrel" are perhaps imitative of calls those birds make. But after finding many names of Germanic and Anglo-Saxon origin among the ducks and shorebirds, we run into another formal, Latinate word in "merganser," from the Latin "mergus" for diver, plus "anser" for goose.

Perhaps the contrast between names of Anglo-Saxon origin and names of Latin and Greek origin suggests that naming birds has been a task shared and fought over by laymen and scientists for hundreds of years. The laymen would choose a name of common, Anglo-Saxon origin reflecting some outstanding feature of the bird, while the scientist would choose a word of his own more bookish or Latinate vocabulary also describing an outstanding feature of the bird. Perhaps the names will become standardized some day.

Meanwhile, some will regret the change of Olive-backed Thrush to Swainson's and Blue-headed Vireo to Solitary. For my part, I am acquainted with neither Mr. Swainson nor Mr. Solitary.

Fred Lester

On July 4, 1967, along the Mississippi River in the northwestern corner of Cass County near Cass Lake, we located a nest of the Least Bittern. This is the same area where we located a nest of this species in 1965 (Fig. 1.) Both nests were located in a dense *Phragmites* marsh in the middle of the river. Water depth was 12 to 18 inches. Because of this they were very difficult to approach with our canoe. We made a definite identification of the adult in 1965 as the parent sat tight on the nest until we almost caught it by hand. In 1967 we did not get a good look at the adult although it was seen as we approached the nest. When we saw the five downy young and the construction and placement of the nest, we recognized it as that of a Least Bittern. Photographs of

Figure 1



Figure 2



Figure 3

the nest were taken at that time. One is of the young in the nest (Fig. 2) and two are close-ups of young in the hand (Figs. 3 and 4). We also banded all five nestlings.

One week later we returned to the nest (which we had marked) and pushed our way in (not an easy task) and found the five birds bandless, for reasons unknown. We rebanded four of the five. They left the nest and number 5 moved out a fair distance so we left it alone. Their eyes had changed in color and appearance. On the first visit they were very dark, surrounded by white, not unlike the eyes of a teddy bear. We would describe the down as buffy-peach in color. The above records are the only sightings we have of Least Bitterns in our area. 2317 Park Ave., Bemidji, Minnesota.

Figure 4



Great Blue Herons have long been residents of Itasca State Park, Clearwater County, Minnesota. Records exist of three colonies in or near the park which flourished in their prime, but since have been abandoned.

The earliest known colony was located near Elbow Lake, about 8.5 miles west of the park (Byer, 1957). Activity there ended abruptly in 1940, when many of the birds were shot and the dead trees harvested (Piehl, 1957).

These drastic measures did little to eliminate herons from the area however, and another colony, located in the park near Radisson Lake, came to the attention of residents. Speculations are that survivors of the Elbow Lake tragedy immigrated to this already flourishing community near Radisson Lake and helped put it on the map—the Itasca Park map, that is. This Radisson heronry supported a respectable population in its time. A park trail running near the colony, (which can still be found and followed today), was named Blue Heron Trail. But this heronry too was destined to fall, and in 1950, only nine nests remained (Byer, 1957). The Radisson Lake colony became a ghost town, but the birds themselves remained nearby, suggesting a move rather than an abandonment of the park.

*The author wishes to express her appreciation for help in this study from Dr. J. F. Mehner, Dr. D. W. Warner, Dr. W. H. Marshall, Mrs. M. Steere, Stan Hedeem, Gary Philips, and especially Jim Bacon, without whose kind help and generosity of time this study would not have been possible.

The location of the new home site was discovered in 1952 west of Whipple Lake, again within the park. The bustle of heron life was studied with interest and population counts were kept, however, the heron citizenry dispersed and Whipple Lake too, became a ghost colony. Throughout its known history, the Whipple Lake heronry was established in dead and dying trees. This same phenomenon was noted in the Radisson Lake colony and is postulated as a possible reason for abandonment of a colony site (Byer, 1957; Kerns and Howe, 1968).

Although the Whipple Lake heronry was deserted in the summer of 1966, a great amount of heron activity on lakes in the area pointed to a new colony nearby. Later that summer the site of the new colony was discovered. This colony was named the Kirk Lake heronry after its location, $\frac{1}{2}$ mile north of Kirk Lake and $\frac{3}{4}$ mile west of Whipple Lake, again within the park. The front cover shows the location of the three past heronries, and the present colony.

POPULATION

In 1967, a nest census of the Kirk Lake colony was conducted with the help of the ornithology classes participating in the University of Minnesota summer Biology session. Observations on three individual nests were also made. Nests occupy the top branches of a mature Red Pine stand located on two parallel ridges north of Kirk Lake. A few scattered White Pines are found, and a thick Aspen growth encroaches on all sides. Forest floor vegetation is typical of Red Pine stands, and nearly all the trees are alive and green.

For convenience, the colony was divided into four sections: West, Northwest, East, and Southeast (Figure II).

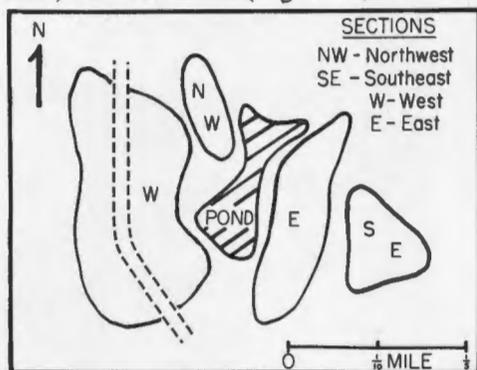


FIGURE II

275 nests were counted in the Kirk Lake colony in 1967: 252 nests were in living Red Pine, 12 were in dead Red Pine, and 11 nests were in living White Pine. Only the West section was censused in 1966, and the total counted then was 91 nests. Table I summarizes results of the 1967 nest census.

NESTING

During the summer of 1967 it was also possible to observe nesting birds and

their young. On June 17th the heronry was quiet, and adults were wary, flushing as the colony was approached. On June 29th the noise made by calling adults and young had increased considerably, and could be heard some distance away. The young, many of which had a fuzzy appearance that was presumed to be natal down, could also be seen on the 29th of June. By July 6th, the noise had increased and the adults seemed to have relaxed their watchfulness a bit, for only a few birds flushed as the area was entered. By July 19th, calling was still constant but less intense, few adults were observed, and young could be seen standing outside of the nests and walking among the branches in the tree tops.

FEEDING

ADULTS: Feeding activity and other aspects of behavior were noted in the course of the study. Eight feedings were observed in three nests. In all cases the adult landed near the nest but not on it, waited (often having a lump in its neck or retching to produce a lump) up to seven minutes before stepping down into the nest and feeding the young. Feeding began with, usually pointing the beak at a 45 degree angle to the sky, lowering it

SPECIES OF TREE	RED PINE						WHITE PINE						TOTAL TREES
	LIVING			DEAD			LIVING			DEAD			
NESTS/TREE	1	2	3	1	2	3	1	2	3	1	2	3	////////
EAST BANK	50	12	1	4	2	0	4	0	1	0	0	0	74
WEST BANK	96	3	0	1	0	0	0	0	1	0	0	0	101
SOUTHEAST	26	1	1	0	1	0	1	0	0	0	0	0	30
NORTHWEST	38	2	0	1	0	0	0	0	0	0	0	0	41
TOTAL TREES	210	18	2	6	3	0	5	0	2	0	0	0	246
TOTAL NESTS	210	36	6	6	6	0	5	0	6	0	0	0	275

TABLE I

and presenting it to the young several times unsuccessfully. The young grabbed at the adult beak and held on until the adult's neck was straight and pointed toward the bottom of the nest. In this position the adult was presumably regurgitating food. Adults regurgitated from one to five times, swallowing violently after each effort. This activity lasted several minutes, after which the adult stepped out of the nest and swallowed or preened for several minutes, regarding the young with a seemingly detached air.

Very few adults were seen sitting idle in the heronry. Those present were either preening or vibrating their throats. No data were compiled, but there seemed to be an increase in activity corresponding to human meal times—a period of moderate feeding activity in the morning, a small amount of activity around noon, and a period of intense activity beginning about 5:30 in the afternoon.

NESTLINGS: Young herons also seemed to exhibit certain patterns of behavior at feeding time. The young in a nest were quiet most of the time. As long as an adult was not present, the nestlings amused themselves by preening, prying at twigs in the nest, moving about, snapping at insects and vibrating their throats. The instant an adult arrived, giving the appropriate call, the young responded. The nestlings' call can best be described as a yek-yek-yek sound, as described by Cottrille and Cottrille (1958). The young climbed into the bowl of the nest, crouched down and held their wings in a "begging" position until the adult started to lower its beak. The nestlings immediately lunged up at the beak, trying to grab it and pull it into the nest. Once food had been released into the nest, the young herons stood on the rim and seemed to fight each other for every morsel. They emitted choking cries at this time.

Several other activities were also noted. Whenever a flying bird approached a perching bird, the later raised its crown and breast plumes and bristled its neck feathers. This display continued until the moving bird either flew on or uttered a specific cry, termed the "greeting" call by Cottrille and Cottrille (1958). They described it as ar-re-ar-re-ar-ar-ar. It had been suggested that this call is a means of mate recognition.

DISCUSSION

It is estimated that 200-250 of the 275 nests counted were active. This means that from 200-250 breeding pairs, or 400-500 birds based their activities from the Kirk Lake heronry and fed in the area. Great Blue Herons typically lay 3, 4, or 5 eggs per pair (Bent, 1927; Roberts, 1932; Kendeigh, 1952). This then represents a potential of at least 600 young herons hatched in the Kirk Lake colony in 1967. However the mortality rate is probably high, (estimated as high as 71% the first year by Owen, 1959), and many of the young most likely do not survive.

According to Roberts (1932), eggs are laid in late April or early May in Minnesota, and incubated for approximately 28 days. The young in the Kirk Lake heronry probably hatched about the first or second week of June. Eggshells were seen on the forest floor on the 17th of June, but no noise attributable to young birds was yet heard. On June 17th, the young were being brooded by their parents (which lasts about 10 days), and at least one parent was present most of the time. As the nesting season progressed, adults became less wary and the growing young more demanding of food, causing more noise and longer periods of time away from the nests on the part of adults searching for food. This probably accounts for the few number of adults in the heronry after about the first of July.

CONCLUSIONS

Great Blue Herons have nested in Itasca Park for a number of years, and are presently nesting in the Kirk Lake heronry. During the summer session at the Itasca Biology Station, a nest census was taken and revealed 275 nests in this colony. Heron feeding behavior was also noted and an estimate made of the number of young hatched that summer. It is hoped that further records will be kept on the progress of this new heronry.

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Greater Prairie Chicken on booming ground in Polk County, Minnesota.

Photo by Gerald H. Maertens, Crookston, Minn.

On May 9, 1967, managers Bellinger and Cline flushed a mature Peregrine Falcon from a recently improved stretch of road and dike one mile east of headquarters at the Agassiz National Wildlife Refuge in eastern Marshall County. The bird flew off to the northeast in typical falcon fashion, i.e., with quick "rowing" wingbeats. The one mile stretch of open dike was frequented daily by several hundred Franklin's Gulls for loafing and roosting.

The Peregrine, better known as the Duck Hawk, is one of a growing number of North American birds which have recently been placed on the list of Rare and Endangered Fish and Wildlife of the United States. Once known for its almost cosmopolitan distribution, this skillful avian predator has been extirpated as a breeding bird in the eastern United States. The cumulative effects of pesticide poisons obtained from the tissues of its prey, as well as the molesting of its nests by man and shooting by hunters and farmers, are believed to be the chief reasons for the birds' decline in numbers. It has been estimated that between 5,000 to 10,000 Duck Hawks are alive today. The Bureau of Sport Fisheries and Wildlife, of the U.S. Fish and Wildlife Service has been charged with the primary responsibility to initiate the action which is necessary to guarantee the future survival of all species of rare and endangered wildlife, at least in representative numbers. Such action must be based on reliable facts pertaining to a particular species' present status and distribution, as well as its general ecology and behavior.

Waterfowl workers at the Agassiz Refuge have made it a policy to record details of unusual bird sightings in the course of their daily work routine throughout the year. Since the Peregrine is known as an uncommon, but regular visitor to the refuge attention is given to assure prompt and accurate note taking whenever one of these birds appears on the area. Details of several sightings made in the spring of 1967 are, therefore, believed worthy of note.

On May 10, a slate-colored male Peregrine leaped from the edge of a refuge

trail two miles to the northwest of the previous day's sighting. This area was also being frequented by Franklin's Gulls. On May 11, administrative assistant Marvin Lee discovered what was believed to be a different individual with the carcass of a freshly killed Pied-billed Grebe along State Aid Highway 7 four miles east of headquarters. In the early morning of May 12, two Peregrines were sighted on the refuge by managers Bellinger and Cline; one was along the west side of Madsen Pool and the other six and one-half miles to the east.

Each morning of the ensuing week, members of the refuge staff found it possible to locate at least one freshly killed Franklin's Gull along the roadgrade (Headquarters Trail) favored by these birds as a loafing and roosting site. All evidence indicated that at least one Peregrine had found the concentration of gulls an attractive source of prey and was launching his attacks from a nearby stand of deciduous trees in the first light of early morning. Soon after sunrise the bird carcasses were picked clean of flesh in typical raptor fashion.

May 20 was the last day Peregrines were seen at Agassiz during the 1967 spring migration period. That day two sightings were recorded. One was at the site of a Pied-billed Grebe kill on the refuge trail running between Agassiz and Headquarters pools. This was again an early morning observation (6:30 CDST). Fifteen minutes later a second Peregrine was seen perched high in a dead elm tree on the western shore of Mud River pool. The heavy dark "mustaches" on these birds, and all others sighted earlier, were distinctive.

It is of significance that all of the reported sightings were of Peregrines found in association with prime waterfowl marsh and shore bird habitats. This points to the ever increasing need to preserve and manage wisely such areas for the benefit of rare and endangered wildlife as well as for the more common species. *James Ford Bell Museum of Natural History and the U.S. Fish and Wildlife Service, Minneapolis, Minnesota.*

(December 1, 1967 - February 29, 1968)

Except for a few severe cold snaps, the winter was a trifle milder than normal. The so-called "January thaw" was again a reality, extending into early February. By the end of February, temperatures had returned to normal, but still no snow cover, except in the far northern portions of the state. Without the protective blanket of snow, many people feared that heavy damage would be done to root-systems of important vegetation. Apparently this was not the case, and the ground thawed early enough for some record-breaking crop plantings when Spring arrived. It would seem that the mild winter allowed many late migrants to linger on through part or most of the season, as the reader will note below.

Horned Grebe: 12-30 Duluth, St. Louis Co., 1, BB.

Pied-billed Grebe: 12-2(CLH) and 12-12 (VL) Minneapolis, 1.

Great Blue Heron: 12-5 Blackdog, Dakota Co., 1, FN/MAS; 12-7 Minneapolis, 1, FN/MAS.

WHISTLING SWAN: 12-3 Minneiska, Wabasha Co., 15, FL; 12-4 to 12-18 Wacouta, Goodhue Co., 2, MH; all winter, Rochester, Olmsted Co., 1 at Silver Lake with Canada Geese, AFR; very few winter records for this species in Minnesota.

Canada Goose: the usual flock of several thousand wintered again at Rochester, Olmsted Co., also reported from Wright, Hennepin, Stearns and St. Louis (Virginia powerplant, EHH, LTM, MIG) Co's.

Snow Goose: usual banded resident still at Collegeville, Stearns Co., KE; 12-14 Rochester, Olmsted Co., 4 with Canada Geese, AFR; very few winter records.

Blue Goose: still one wintering at the Virginia powerplant, St. Louis Co., MIG, LTM, EHH.

Mallard: reported from Hennepin, St.

Louis, Dakota, Cook, Rice, Nobles, Wright, Anoka, Goodhue, Carver, Lake and Wabasha Co's.

Black Duck: reported from Hennepin, St. Louis, Wright, Goodhue, Cook, Wabasha, Anoka and Ramsey Co's.

Pintail: 12-2 Minneapolis, CLH; 1-21 Shakopee, Scott Co., 2, MHM.

Wood Duck: reported from Anoka, Hennepin and St. Louis (Virginia powerplant, LTM, MIG, EHH) Co's.

Redhead: 12-8 Lake Calhoun, Minneapolis, FN/MAS; 12-12 Lake Harriet, Minneapolis, VL; 12-23 St. Paul, Ramsey Co., pair, BL.

Ring-necked Duck: 12-3 Lake Harriet, Minneapolis, DB; 12-4 Lake Vadnais, Ramsey Co., VL; 12-5 Lake Calhoun, Minneapolis, FN/MAS; 1-16(EHH), 2-3(BL), 2-5(MIG), 2-29(LTM) St. Louis Co., at Virginia powerplant.

Lesser Scaup: 12-13(JJ), 12-9(ACR), 12-23(BL) St. Paul, Ramsey Co.; 12-4 Wacouta, Goodhue Co., MH; 12-12 Minneapolis, VL; 1-5 Grand Marais, Cook Co., MIG.

Common Goldeneye: reported from Olmsted, Goodhue, Chisago, Hennepin, Anoka, Wabasha, Lake, St. Louis, Cook, Morrison, Wright, Ramsey, Koochiching, Stearns, Dakota and Carver Co's.; also Fargo-Moorhead.

BARROW'S GOLDENEYE: 1-1(VL, DB,RLH,RBJ), 1-3(FN/MAS) Blackdog, Dakota Co.

Bufflehead: reported from Cook, Lake, St. Louis, Hennepin and Dakota Co's.

Oldsquaw: usual reports from Cook & Lake Co's; peak numbers, 2-4 Hovland, Cook Co., 200, HEP.

Harlequin Duck: 1-4 Stoney Point, Lake Co., 2 subadult males, JCG,RG; 1-16 (DB,EHH), 2-3(BL), 2-5(MIG) St. Louis

Co., Virginia powerplant, one adult male.

White-winged Scoter: 12-6 Two Harbors, Lake Co., 1, JCG.

SURF SCOTER: 12-16 Duluth, St. Louis Co., 2 females, RL; good details; probably only second winter record for state.

Ruddy Duck: 12-3 Minneapolis, 1, VL, 12-9 Rochester, Olmsted Co., DB.

Hooded Merganser: 12-2(CLH), 12-5 (FN/MAS), 12-19(VL) Minneapolis.

Common Merganser: reported from Hennepin (VL saw 200 on 12-3), Lake, St. Louis, Dakota, Wabasha, Chisago, Goodhue, Houston Co's.; also Fargo-Moorhead.

Red-breasted Merganser: 12-5 Wacouta. Goodhue Co, MH; strangely absent elsewhere.

Goshawk: Dec., Hugo, Washington Co., GCA; 2-13 (captured 2-21) Carlos Avery Refuge, Anoka Co., WHL.

Sharp-shinned Hawk: reported only from Wabasha, Carlton, St. Louis Co's.

Red-tailed Hawk: reported from Olmsted, Fillmore, Houston, Wabasha, Scott, Carver, Rice, Blue Earth, Watonwan, Anoka, Hennepin, Stearns, Washington, Itasca and St. Louis Co's.

Red-shouldered Hawk: 2-3 Whitewater Park, Winona Co., DB; 2-6, 2-20 Ft. Snelling State Park, Hennepin Co., VL.

Rough-legged Hawk: reported from Olmsted, Fillmore, Dakota, Stearns, Wabasha, Carlton, St. Louis, Anoka, Hennepin, Aitkin, Marshall, Redwood, Nobles, Rice, Carver, Morrison, Lake, McLeod, Watonwan, Washington Co's.; also Fargo-Moorhead (20 counties as compared to 5 counties last winter!).

Bald Eagle: 12-10 Houston Co., 2ad, 2imm, FL; 2-3 Read's Landing, Wabasha Co., 2ad, FL; 12-30 Pt. Douglas, Washington Co., 3ad, SAW; 12-3(lad, 3imm), 12-4(lad, 2imm), 12-5(lad, limm) Wacouta, Goodhue Co., MH; 12-23 Taylors Falls, Chisago Co., lad, MFH; 12-4 to 2-27 Wabasha Co., 1 to 3 seen, DGM; 1-9 Dakota, Goodhue, Wabasha Co's., 9ad, FN/MAS; 1-13 Red

Wing, Goodhue Co., 3, DB; 12-12 Bloomington, Hennepin Co., VL; all winter, Trout Lake & Prairie River area, Itasca Co., 2 ad, TCD; 2-17 Taylors Falls, Chisago Co., 2 ad, EL; 12-28(lad, 7imm), 1-2(10) McGregor, Aitkin Co., ME; 12-10 Crow Wing Co., 1, MSB; 12-5, 12-12 Hennepin Co., lad, RDT; 12-20, 12-31 Duluth, St. Louis Co., *fide* JCG; 2-11 Carlos Avery Refuge, Anoka Co., limm, MIG.

Marsh Hawk: reported from Nobles, Renville, Olmstead, Wabasha, Stearns, Aitkin (12-28 McGregor, ME) Co's.

GYRFALCON: 2-5 Duluth, St. Louis Co., good details, KE.

Sparrow Hawk: reported from Olmsted, Dakota, Stearns, Goodhue, Wabasha, Hennepin, Wright, Rice, Nobles, Carver, Anoka, Ramsey, Kandiyohi, Watonwan, Blue Earth Co's.

Spruce Grouse: resident, Roseau Co., PEB; 12-17(9, LTM), 2-15(1, PE) Lake Co.; 2-29 Shotley, Beltrami Co., MG.

Ruffed Grouse: reported by 27 observers from 15 counties: Lake, Roseau, Cook, Fillmore, Stearns, St. Louis (32 on Duluth Xmas count!), Goodhue, Chisago, Itasca, Marshall, Aitkin, Crow Wing, Morrison, Beltrami, Kanabec Co's.

Sharp-tailed Grouse: 12-30 Hibbing, St. Louis Co., 2, HM; 2-3 Payne, St. Louis Co., 2, BL; 2-4 Grand Marais, Cook Co., 1, FL (may be only Cook Co. record?); 2-22 Meadowlands, St. Louis Co., 11, DB; 2-26 and throughout winter, Marshall Co., AWR; "resident", Roseau Co., PEB.

Ring-necked Pheasant: reported from Hennepin, Watonwan, Blue Earth, Lyon, Olmsted, Stearns, Goodhue, Chisago, Wabasha, Pope, Stevens, Big Stone, Nobles, Rice, Carver, Morrison, Isanti, Anoka, Ramsey, Wright, Washington Co's.

Chukar: 2-5 Ely, St. Louis Co., 6, MIG.

Gray Partridge: 2-22 Rice Co., 1, OAR; 2-24 Olmstead Co., AFR; "resident", Roseau Co., PEB.

American Coot: reported only from Wright and Hennepin Co's.

KILLDEER: 12-30 (Xmas Count), 1-1 (RBJ, RLH), Barden, Scott Co., 2.

Common Snipe: 1-13, 1-20, 2-24 Fillmore Co., AFR; 1-13 Dakota Co., 2, DB.

GULL, SPECIES?: a large, dark-backed gull, intermediate in plumage between the Great Black-backed Gull and the SLATY-BACKED GULL was discovered at Knife River, Lake Co., on 1-4 by JCG; seen there again on 1-24 by FN/MAS; 1-27(RPR) and 1-28(JCG) it was seen at Two Harbors, Lake Co.; most observers called it a Great Black-backed Gull, but the coupious notes taken by JCG leave the identity open to question.

Glaucous Gull: Knife River, Lake Co., 1-23(2, FN/MAS), last seen 1-28(JCG, totalled 5ad, 8imm for winter); Cook Co., Grand Marais, 12-27(1 imm, BL), 1-5 (2, MIG), 1-25 (4, FN/MAS), 2-3 (2imm, JCG); Silver Bay, Lake Co., 2-3, 1 imm, JCG.

ICELAND GULL: 1-10 Knife River, Lake Co., 1 imm, photographed by JCG.

Herring Gull: reported from Dakota, St. Louis, Lake, Cook, Hennepin, Goodhue, Wabasha and Ramsey Co's.

Ring-billed Gull: 12-3 Lake Harriet, Minneapolis, DB; 12-5 Blackrog, Dakota Co., many, FN/MAS; 12-8 Lake Harriet, FN/MAS; 12-12 Minneapolis, VL.

Mourning Dove: reported from McLeod, Rice, Blue Earth, Stearns, Goodhue, Hennepin and Wabasha Co's.

Screech Owl: reported from Hennepin, Rice, Watonwan, Blue Earth, Stearns, Goodhue, Washington and Olmsted Co's.

Great Horned Owl: reported from Hennepin, Dakota, Winona, Ramsey, Lake, Wright, Rice, Marshall, Watonwan, Blue Earth, St. Louis, Lyon, McLeod, Lake-of-the-woods, Goodhue, Chisago, Wabasha, Itasca, Stevens, Big Stone, Washington, Nobles, Anoka, Olmsted Co's;; also Fargo-Moorhead.

Snowy Owl: many reports, starting with northern records and working south: Lake Co., Two Harbors, 12-22, 1, JCG, 12-24, 1, GEC; St. Louis Co., Virginia, 1-31, 1, M. E. Tuenge, Mt. Iron, 2-3, 1, KE, Duluth, 12-26, 1, AKA, 12-27 1,

M. Sundquist, 12-28, 1, RK, 12-30, 4, Xmas Count, 1-7, 1, MIG, 1-14, 1, RL, 1-16, 2, DB, EHH, 1-18, 1, D. Erickson, 1-21, 1, BL, 2-5, 2, KE, 2-6, 1, BL, 2-18, 1, RL; Roseau Co., Warroad, 12-4, 1, PEB, 12-25, 1, Dick Myers; Aitkin Co., Rice Lake Refuge, 4 seen regularly, MSB; Crow Wing Co., Crosby, all winter, MSB; Polk Co., Crookston, January, 7 seen, J. R. Nelson; Clay Co., Buffalo River, 1-22, 1, D. Lais; Stevens Co., Donnelly, 2-18, 1, Del Holdgrafer; Washington Co., Lake Jane, 2-9, 1, JO; Big Stone Co., Artichoke Lake, 2-24, 1, JAH; Hennepin Co., Dayton, 1-7, 1, MHM; Minneapolis, 12-9 to 12-15, 1, VL, 12-24, 1, DB; Olmsted Co., Rock Dell Twp, 1-14, 1, HBW; Watonwan Co., 7 mi SE Medalia, 12-20, 1, EDK; no less than 24 observes reporting them from 13 counties.

Hawk-Owl: 12-25 Cloquet Valley State Forest, 1, J. C. Ryan *fide* JCG.

Barred Owl: reported from Chisago, Washington, Goodhue, Wabasha, Ramsey, Hennepin, Carver, Rice and Stearns Co's.

Long-eared Owl: 1-3 Hugo, Washington Co., 1, GCA; 12-12 Duluth, St. Louis Co., 1 road kill, BB *fide* JCG (first winter record for Duluth); 12-19 Stearns Co., 1, KE; Rice Co., Faribault, 1 found dead by OAR.

Short-eared Owl: 12-21, 1-11, 2-12 Lewisville, Watonwan Co., 1, EDK; 1-21 Hennepin Co., 1, DB; 1-23 Zim, St. Louis Co., 1, FN/MAS; 12-6 Marshall So., 1, AWR; 12-23 Fargo-Moorhead, *fide* EGA.

Belted Kingfisher: usual wintering few reported from Winona, Dakota, Ramsey, Anoka, Wabasha, Goodhue, Fillmore, Olmsted Co's.

Yellow-shafted Flicker: reported from Carver, Nobles, Lyon, Aitkin, Cook, Hennepin, Anoka, Mille Lacs, Blue Earth, Watonwan, St. Louis, Rice, Wabasha Co's; also Fargo-Moorhead.

Pileated Woodpecker: reported from Hennepin, Carver, Blue Earth, Rice, Fillmore, Anoka, Wabasha, Stearns, Cook, Morrison, Chisago, St Louis, Washington, Pope Co's.; also Fargo-Moorhead.

Red-bellied Woodpecker: usual records for Carver, Rice, Olmsted, Fillmore, Wabasha, Houston, Hennepin, Ramsey, Goodhue, Stearns, Chisago, Washington Co's; several very interesting northerly records: Duluth, late fall to 1-7, 1 female, Clarence Nelson *vide* JCG; Cloquet, Carlton Co., 1-13 to early Feb., I. Gildemeister *vide* JCG; Grand Rapids, Itasca Co., late Dec. to early Jan., R. Bellefy *vide* JCG, and 1-15 to 2-29, ad male, TCD.

Red-headed Woodpecker: reported only for Stearns (Kimball, JAH and Collegeville, KE) and Chisago (Taylors Falls, EL) Counties.

YELLOW-BELLIED SAPSUCKER: 12-7 Minnehaha Creek, south Minneapolis, 1, VL, apparently very late migrant.

Hairy Woodpecker: reported from 34 counties, all across the state.

Downy Woodpecker: reported from 33 counties, all across the state.

Black-backed Three-toed Woodpecker: 2-17 Encampment Forest, Lake Co., 1, RL, JCG; 12-30 French River, St. Louis Co., 1, JGH; 1-2 French River, St. Louis Co., 1, Mrs. Alseth *vide* JCG; 2-4 Cascade River, Cook Co., 1, HEP; 25 sightings during period, Lutsen, Cook Co., LS; one fantastic record from out on the prairie; 2-8 Watonwan Co., Madelia Research Center, 1, good details, EDK.

Horned Lark: reported from Adrian, Nobles Co., entire period, hundreds, EHW; Lyon, Redwood, Renville Co's., hundreds in Jan., Feb., PE; all other reports seem to indicate some migration; 12-3 Nobles Co., HSH, 12-4 Anoka Co., ACR, 12-21 Stearns Co., KE; then no records until 1-11 Washington Co., JO, 1-13 Dakota Co., DB, 1-15 Nobles Co., hundreds, HSH; in northern areas, 2-15 Marshall Co., AWR, 2-25 Crow Wing Co., MSB, 2-25 Roseau Co., PEB.

Gray Jay: usual reports from Cook, Lake, St. Louis, Roseau, Beltrami, Cass Co's.; one southerly record: 12-8, 12-9, 1-8 Bloomington, Hennepin Co., 1 at feeder, VL, FN/MAS.

Blue Jay: reported from 32 counties, all across the state.

Black-billed Magpie: 2-2 Beltrami Co., 10 mi N. Waskish, 1, KE; 2-2 Lake-of-the-woods Co., 5 mi SE Baudette, 2, KE; 2-2 St. Louis Co., Meadowlands, 1, Mrs. Everett Laine *vide* JCG; 2-9 Fargo-Moorhead, 2, *vide* EGA; Marshall Co., all winter, AWR; Roseau Co., common winter resident, PEB; throughout period, Shotely, Beltrami Co., MG.

Common Raven: reported from Beltrami, Koochiching, Lake-of-the-Woods, Roseau, Marshall, Lake, Cook, St. Louis, Pine Co's.; highest total, 2-3 Silver Bay, Lake Co., 78, JCG.

Common Crow: reported from 26 counties, all across the state, including NE corner.

Boreal Chickadee: usual reports from Cook, Lake, St. Louis, Koochiching Co's.

Tufted Titmouse: 10 observers reported them from Olmsted, Hennepin, Goodhue, Winona, Rice, Fillmore, Wabasha Co's., perhaps indicating that this species is making a slow but steady comeback; in view of this, two northerly reports are especially noteworthy: Oct. thru last week of Jan., Chisago Co., Taylors Falls, pair at feeder, EL, MFH; mid-Nov. thru at least early Feb., Duluth (Chester Park), 1, Anna-Marie Duval and Mrs. O. W. Thorsteinson *vide* JCG.

White-breasted Nuthatch: reported from 31 counties all across the state, including the NE corner.

Red-breasted Nuthatch: usual reports from Cook, Lake, St. Louis Co's.; two southerly records: 12-3 Anoka Co., 2, ACR; 1-6(ACR), 2-8(JLS), 2-29(JLS) Ramsey Co.

Brown Creeper: reported from Stearns, Hennepin, Rice, Winona, Goodhue, Nobles, Yellow Medicine, Carver, Washington, Wabasha, Morrison, Stevens, Wright, Mille Lacs, Ramsey, Anoka, Cottonwood, Chisago, Crow Wing Co's.; also Fargo-Moorhead.

CATBIRD: 1 at suet feeder until 12-15, Wacouta, Goodhue Co., MH 12-25; Tofte, Cook Co., 1 at feeder *vide* MOP; 1 at feeder until 1-15, Edina, Hennepin Co. *vide* Mrs. Telfer; very few winter records for our state.

BROWN THRASHER: 1 all winter at Cascade River, Cook Co., seen on 2-4 by HEP; 1 all winter at feeder, Bloomington, Hennepin Co., MEH.

Robin: quite a winter; reported from Hennepin, Stearns, Rice, Goodhue, Carver, Washington, Ramsey, St. Louis, Lake, Cook Co's.; in last 3 counties, along north shore of Lake Superior, 100's were counted in early Feb.!! also Fargo-Moorhead.

VARIED THRUSH: 1-13 Tofte, Cook Co., flock of 4 to 6, MOP (may be first multiple sighting for state ?); 1-28 Stewart River, Lake Co., 1 ad male, KE; 12-3 to 12-26 (E. Carey) and 1-17 (Dr. Scott), Sunfish Lake, Dakota Co.

EASTERN BLUEBIRD: 12-9 Rochester, Olmsted Co., 1, DB; 12-13(JCG), 1-5(MIG), 1-13(JNG), 1-19 (Mrs. Peterson), French River, St. Louis Co., apparently seen into Feb. by someone? These are perhaps first winter records in 20 or 30 years?

Golden-crowned Kinglet: reported from Stearns, Hennepin, Fillmore, Carver, Wright, Stevens, St. Louis and Morrison Co's.; withdrew from last 3 counties after December.

Bohemian Waxwing: reported from Beltrami, Marshall, St. Louis, Kanabec, Lake, Stearns, Morrison Co's., also Fargo-Moorhead; highest numbers, 2-4 Ely, St. Louis Co., 200+, MSB.

Cedar Waxwing: scarce this winter; reported from Chisago, Ramsey, Cook, Hennepin, St. Louis, Kanabec, Lake, Stearns, Washington Co's.; also Fargo-Moorhead.

Northern Shrike: reported from Chisago, Lake-of-the-woods, Morrison, Watonwan, Aitkin, Pope, Crow Wing, Nobles, Wabasha, Hennepin, Rice, St. Louis, Lake, Cook, Dakota, Goodhue, Stearns, Anoka, Carver, Morrison, Washington, Beltrami Co's.; also Fargo-Moorhead.

LOGGERHEAD SHRIKE: 12-10 Adrian, Nobles Co., 1, EHW (observer not aware of normal winter absence of this species, but details fairly good); 12-30 Barden, Scott Co., Xmas Count, Goodman Larson and Lester Badger, excellent

details; these are probably first winter records for state.

MYRTLE WARBLER: 12-4 to 12-14 Wacouta, Goodhue Co., 1 at feeder, MH; 1-1 Roseville, Ramsey Co., 1 at feeder, MIG (may have stayed longer ?); 12-23 to 2-14 Edina, Hennepin Co., 1 at feeder, Mrs. Telfer (see Notes of Interest in previous issue); apparently only one previous winter record (not well-documented) for state.

Western Meadowlark: 12-23 Fargo-Moorhead, 1, *fide* EGA; probably late migrant?

Meadowlark, species?: 12-8(100), 12-9(1), 12-10(50), 12-24(200), 12-29(2), Wabasha Co., DGH; very interesting concentrations in view of absence elsewhere in state.

Red-winged Blackbird: scarce, reported only from Goodhue, Houston, Hennepin, Rice, Stearns, Stevens and Ramsey Co's.

BALTIMORE ORIOLE: late Nov. thru 12-9 Duluth, St. Louis Co., 1 female, LP *fide* JCG.

Rusty Blackbird: reported from Lake, Big Stone, Fillmore, Aitkin, Benton, Lyon, Rice, Hennepin, Pope, Stearns, Scott Co's.; also Fargo-Moorhead.

Brewer's Blackbird: 12-21 Collegeville, Stearns Co., 1 at feeder, voice noted, KE.

Common Grackle: reported from Stearns, Scott, Stevens, Pope, Lyon, Fillmore, Rice, Hennepin, St. Louis, Anoka, Wabasha Olmsted, Houston, Nobles, Cottonwood, Chisago, Ramsey Co's.

Brown-headed Cowbird: 12-15 to 1-7 Mountain Lake, Cottonwood Co., 1 male, LAF; strangely absent for past few winters.

Cardinal: reported from Cottonwood, Ramsey, Chisago, Carver, Washington, Hennepin (20 to 29 seen daily, MEH), Stearns, Rice, Stevens, Olmsted, Fillmore, Lyon, Wabasha, Watonwan, Blue Earth, Ramsey Goodhue (63 at one time MH!!) Co's.; also Fargo-Moorhead; several noteworthy northerly records: 1-27 Encampment Forest, Lake Co., 1 male, KE; all Dec., Duluth, St. Louis Co., 1 female, Mrs. Anna Payne *fide* JCG; 11-29 to 1-19 Hibbing, St. Louis Co., 1 daily HM.

Evening Grosbeak: did not get very far south this winter; reported from Marshall, Lake, Chisago, St. Louis, Cook, Kanabec, Carlton, Morrison, Beltrami, Stearns, Hubbard, Lake-of-the-woods, Koochiching, Roseau, Isanti, Itasca, Crow Wing, Washington Co's.; also Fargo-Moorhead.

Purple Finch: obviously widespread because it was reported from 25 counties (compared to 12 counties last winter) all across the state, but everyone commented on the very low numbers this winter.

Pine Grosbeak: confined to Cook, Lake, St. Louis Co., with earliest reports: 12-2 Hibbing, St. Louis Co., HM; 12-13 Lutsen, Cook Co., LS; 12-15 Tofte, Cook Co., MOP and 12-18 Isabella, Lake Co., LTM.

GRAY-CROWNED ROSY FINCH: first seen on 2-2, remained throughout February, Bagley, Clearwater Co. 1 at feeder, photographed by Richard C. Davids. Second Minnesota record.

Hoary Redpoll: 1-5 Gunflint Trail, Cook Co., 1, MIG; only report.

Common Redpoll: reported from Cook, Lake, St. Louis, Lake-of-the-woods, Koochiching, Stearns, Hennepin, Goodhue, Chisago, Isanti, Ramsey, Washington Co's.; much scarcer than usual; earliest 12-21 Collegeville, Stearns Co., KE.

Pine Siskin: 21 observers report them from Cass, Hennepin, Rice, Lake (12-26, 800+, RK), St. Louis, Carver, Beltrami, Lake-of-the-woods, Koochiching, Stearns, Cook (12-21, 650), LS, 12-18, 1500, LTM), also Fargo-Moorhead; largest total, Cloquet Valley State Forest on 12-23, 6000 seen on 16 mile stretch of road, J. C. Ryan *vide* JCG!!

American Goldfinch: scattered widely across state but in very small numbers: Ramsey, Hennepin, Crow Wing, Washington, Hubbard, Chisago, Goodhue, Anoka, Wabasha, Pope, Winona, Fillmore, Stevens, Beltrami, Wright, Morrison, Carlton, Isanti, Rice, Lyon, Carver, Stearns, Cook St. Louis Co's.; also Fargo-Moorhead.

Red Crossbill: usual reports from Cook (125 on 1-12, LS) St. Louis, Koochiching, Lake-of-the-woods, Beltrami Co's;

unusual reports, 1-29, 2-8 Morris, Stevens Co., 7, JAH and 1-9(1), 1-23(10) Collegeville, Stearns Co., KE.

White-winged Crossbill: as with above species, usual reports from Cook, Lake, St. Louis and Lake-of-the-woods Co's; several southerly records, 1-25 Morris, Stevens Co., 20, JAH; 12-21(6), 1-22(20), 1-20(10) Collegeville, Stearns Co., KE; several weeks at window feeder, 1, Wacouta, Goodhue Co., MH, extremely isolated record.

RUFOUS-SIDED TOWHEE: 12-2 Duluth, St. Louis Co., 1, Phyllis Aspoas *vide* PBH.

Slate-colored Junco: numbers down, appearances irregular from Anoka, Mille Lacs, Nobles, Watonwan, Olmsted, Beltrami, Washington, Carver, St. Louis, Cook, Hennepin, Lyon, Rice, Isanti, Morrison, Fillmore, Pope, Wabasha, Ramsey, Stevens, Stearns Dakota Co's.; also Fargo-Moorhead.

Oregon Junco: 1-8 Wyoming, Washington Co., 1 banded, FVS; no date, Hugo, Washington Co., GCA; 1-10, 2-28 Carver Co., MHM; seen daily, Bloomington, 1, MEH; 1-30 Cyrus, Pope Co., 1, WH; 1-16, 1-18 Christmas Lake, Hennepin Co., 1, RDT; 12-9(2), 12-21(1) Collegeville, Stearns Co., KE; 12-21 Minneapolis, 1, gray hood, pink sides, brown back, MES; it is interesting that only one of the above observations was accompanied by a description.

Tree Sparrow: reported from Hennepin, Carver, Washington, Stearns, Chisago, St. Louis, Goodhue, Anoka, Stevens, Big Stone, Ramsey, Wabasha, Olmsted, Fillmore, Dakota, Rice, Lyon, Nobles, Wright Co's.; northerly records: Cook Co., Lutsen, 12-17, LS and Schroeder 12-24, MAF; St. Louis Co., Duluth (Congdon Park), 12-26 to 12-29, AKA; Clifton, 12-4, 1-21, 1-23, 2-2, 2-7, 2-17, one each time, JCG.

HARRIS' SPARROW: 2 at feeder most of period, Fargo-Moorhead, *vide* EGA.

White-throated Sparrow: 12-23 Fargo-Moorhead, *vide* EGA; 1-3 St. Paul, 2, ACR; 2-24 Fillmore Co., 1, AFR; 12-24 to 1-20 Cook Co., Schroeder, 1 daily, MAF; 1-1 through most of Jan., Duluth,

St. Louis Co., 1 injured, KS; 12-27 through winter, 1 imm at feeder, Minneapolis, SAW; more records than usual.

FOX SPARROW: 12-8 to 1-8 (died) Colledgeville, Stearns Co., 1, KE.

Song Sparrow: 12-3 Lyon Co., 8 PE; 12-22 to 2-9 Schroeder, Cook Co., 1 almost daily, MAF; 1-5 Grand Marais, Cook Co., 1, MIG; northerly records are noteworthy.

Lapland Longspur: reported from Nobles, Wabasha, Lyon, Stearns, Redwood, Renville, McLeod, Dakota (400 on 1-13, DB) Co's.; two northerly records, 12-14 Lutsen, Cook Co., 1 female, LS; 12-22 Two Harbors, Lake Co., 1 male, JCG, probably late migrants.

Snow Bunting: reported from Cook, Lake, St. Louis, Stearns, Lake-of-the-woods, Lyon, Koochiching, Dakota, Pope, Hennepin, Washington, Chisago, Stevens, Morrison, Itasca, McLeod, Rice, Watonwan, Beltrami, Crow Wing, Pine, Roseau, Aitkin Co's.

SUMMARY: Individually, 99 observers (71 regulars + 28 others; most we've ever had for a Winter Season) remarked on a dull, nodescript winter, but collectively they recorded 116 species (slightly fewer than last winter). Unusual species which now seem to be expected regularly were the Barrow's Goldeneye, Harlequin Duck, Gyrfalcon and Iceland Gull. Extralimital occurrences were put in by the Varied Thrush (almost regular?) and Gray-crowned Rosy Finch (second state record). Species seldom recorded here during the winter were Whistling Swan, Surf Scoter, Catbird, Brown Thrasher, Baltimore Oriole, Rufous-sided Towhee, Harris' Sparrow and Fox Sparrow. The Killdeer and Yellow-bellied Sapsucker probably also belong in the last category. Thus 19 species of extraordinary interest were reported . . . certainly one of the most remarkable winters I can recall!

Addenda to Fall Report 1967

White Pelican: 9-8 Schroeder, Cook Co., 1, Margaret Brooke *vide* MAF; may be only the second record for Cook County.

Vesper Sparrow: 11-20(1), 11-21(3) Tofte, Cook Co., MOP; good details; ex-

tremely late dates and unusual location.

Corrigenda to Fall Report 1967

Franklin's Gull: 275 seen on 11-4 at Winnibigoshish Lake by DS should have been Bonaparte's Gulls.

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Stomachs from 289 foxes (274 red foxes and 15 gray foxes) were obtained from fur-buyers in Watonwan and Martin counties during December 1964 and January-February 1965. These stomachs were stored in a freezer until later examination. Stomach contents were placed

in a metal sieve of 5.59mm mesh and washed with water. Immediately identifiable items were separated and their volume determined. The unidentified material was volumetrically measured and small samples were placed in manila envelopes for comparison with a reference

Table 1. Food remains in stomachs of 203 red fox collected in south central Minnesota during winter, 1964-65.

FOOD ITEM	OCCURRENCE		VOLUME	
	No.	Percent	Total cc.	Percent
BIRDS				
<u>Domestic fowl</u>	<u>45</u>	<u>22.2</u>	<u>1411</u>	<u>18.5</u>
Chicken	34	16.7	1067	14.0
Duck	11	5.4	344	4.5
<u>Pheasant</u>	<u>27</u>	<u>13.3</u>	<u>820</u>	<u>10.7</u>
<u>Song birds</u>	<u>3</u>	<u>1.5</u>	<u>1</u>	<u>tr</u>
MAMMALS				
<u>Domestic livestock</u>	<u>14</u>	<u>6.9</u>	<u>207</u>	<u>2.7</u>
Dog	1	0.5	18	0.2
Pig	7	3.4	119	1.6
Sheep	6	3.0	70	0.9
<u>Mice</u>	<u>118</u>	<u>58.1</u>	<u>973</u>	<u>12.8</u>
<u>Miscellaneous mammals</u>	<u>16</u>	<u>8.0</u>	<u>385</u>	<u>5.1</u>
Fox squirrel	2	1.0	7	0.1
Mink	1	0.5	3	tr
Muskrat	1	0.5	48	0.6
Opossum	2	1.0	12	0.2
Raccoon	2	1.0	255	3.4
Red fox	2	1.0	6	0.1
Shrews	2	1.0	14	0.2
Skunk	3	1.5	24	0.3
13-lined ground squirrel	1	0.5	16	0.2
<u>Rabbits</u>	<u>76</u>	<u>37.4</u>	<u>3543</u>	<u>46.6</u>
Cottontail	71	35.0	3364	44.1
Jackrabbit	5	2.5	179	2.4
<u>Unidentified mammals</u>	<u>16</u>	<u>7.9</u>	<u>56</u>	<u>0.7</u>
MISCELLANEOUS				
<u>Garbage - cotton batting</u>	<u>1</u>	<u>0.5</u>	<u>3</u>	<u>tr</u>
<u>Vegetation</u>	<u>54</u>	<u>26.6</u>	<u>197</u>	<u>2.6</u>
Corn	8	3.9	147	1.9
Grass, etc.	46	22.7	50	0.7

food items collection at the University of Minnesota Museum of Natural History.

Examination of the 203 red fox stomachs which contained food indicates that red fox eat a variety of foods (Table 1). By volume, the most important foods were cottontail rabbits, domestic poultry (mostly chickens), mice, and Ring-necked Pheasants. These items made up about 87 percent of the total volume of food.

The poultry were probably carrion since it is a common practice of farmers in this region to dump dead chickens and other animals, such as small pigs and sheep, in the fields during the winter months. Also, since most farmers keep poultry indoors during the winter, it would seem improbably that chickens were actually killed by the fox.

Much of the mammal remains was most likely also carrion. Species such as sheep, pig, dog, skunk, racoon, red fox, and mink were probably dead before being found by the fox. It is doubtful that foxes would kill any of the foregoing species during the winter months

even though it might be possible for them to do so. Some of the rabbit and pheasant also may have been carrion, having been killed by vehicles or dying from other causes.

Plant materials occurred frequently in the stomachs but were relatively unimportant by volume. Probably this vegetation was inadvertently ingested. For example, corn might be from the digestive tracts of birds.

The analysis of 15 gray fox stomachs is not an adequate sample for a food habits investigation. Nevertheless, it is interesting to note that of the 10 stomachs containing food, 3 contained remains of tree squirrels. Thus, by volume, squirrels were the main food item of gray fox (Table 2). This may be reasonable because of the gray fox's preference for woodland habitat. An earlier food habits investigation in Minnesota by Hatfield (1939) indicated that rabbits, mice, and miscellaneous vegetation were the most prevalent foods found in 53 gray fox stomachs.

Red fox food habits have been studied

Table 2. Food remains in stomachs of 10 gray fox collected in south central Minnesota during winter, 1964-65.

FOOD ITEM	OCCURENCE		VOLUME	
	No.	Percent	Total cc.	Percent
BIRDS				
Domestic fowl (chicken)	1	10.0	10	3.6
Unidentified bird	1	10.0	tr	tr
MAMMALS				
Mice	2	20.0	1	0.4
Rabbit - cottontail	1	10.0	tr	tr
Squirrel	3	30.0	229	83.0
Fox	(1)	(10.0)	(tr)	(tr)
Gray	(1)	(10.0)	(227)	(82.2)
Red	(1)	(10.0)	(2)	(0.7)
Unidentified mammal	1	10.0	1	0.4
MISCELLANEOUS				
Garbage - oleo wrapper	1	10.0	6	2.2
Vegetation - corn, grass, etc.	8	80.0	29	10.5

by numerous investigators in various states. Their results, showing the principle foods of red fox, are given in Table 3. It is evident that rabbits and mice are the primary foods of the red fox in other

states as well as in the area of our investigation.

The data for this report was adapted from the Minnesota Game Research Quarterly, Vol. 26, No. 3, pp. 19-24.

Table 3. Winter food habits of red fox as determined by examination of stomach contents in various states where pheasants are available as a food source.

YEAR	NUMBER STOMACHS EXAMINED	PRINCIPLE FOODS	STATE & INVESTIGATOR
1939	29	Mice, rabbits, poultry	Minnesota - Hatfield
1942	57	Rabbits, apples, mice	Massachusetts - MacGregor
1944	36	Mice, rabbits, chickens	Minnesota - Schrader
1946	211	Rabbits, mice, song birds, chickens	Indiana - Kase
1947	200	Mice, game birds (primarily pheasants), rabbits	North Dakota - McKean
1949	128	Rabbits, rodents, carrion	North Dakota - Anonymous
1950	202	Rabbits, mice, chickens	Iowa - Scott
1953	59	Rabbits, mice, chickens	Wisconsin - Richards & Hine
1956	26	Pheasants, mice, rabbits	South Dakota - Findley
This study	203	Rabbits, chickens, mice	Minnesota - Kopischke

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Notes of Interest

Long-billed Curlew Visits Wayzata — On the morning of April 10, 1968, I observed what seemed to be a hen pheasant on a field adjoining State Highway 101 at the north edge of Wayzata. Wife Ramborg, however, insisted it had a very long bill. A closer look confirmed a long, decurved bill and this sent us racing back home for binoculars and Peterson's Field Guide. Cautious, but relatively easy identification of the Long-billed Curlew followed. Decurved bill about 8 inches long, very faint suggestion of an eye stripe, buffy overall color and speckled back were the distinguishing features. A hasty phone call to Dr. W. J. Breckenridge soon brought help and corroboration from several Wayzata birders. Shortly afterwards Dr. Breckenridge arrived and further confirmed our find. During the day a steady procession of enthusiastic birders from all over the Twin City area observed the bird as it fed on earthworms. Occasionally it crouched down to rest. At dusk I saw it fly off to the north. Next morning, April 11, the now familiar Long Bill was back and again stayed all day doing an excellent job of patrolling the entire field for earthworms. Shortly before dusk I stationed myself near its line of flight of the previous evening. In a few minutes, apparently flushed by an amateur photographer, it flew within 25 yards of me and landed. After a disgusted shake of the head and uttering a low squawk it again flushed, now gaining great altitude flying off to the northwest and out of sight. This time the cinnamon wing-linings were very evident. Back at the old stand for Mr. (?) curlew on April 12. Human activity, however, began picking up. Three determined boys armed with a box camera crept within 10 yards of our rare visitor. One hour later two adults bounced across the field in a jeep and nearly succeeded in running over the bird. Back again on Saturday, April 13. Two cars, one containing a photographer with a huge telescopic lens and the other an amateur movie photographer, attempted to approach our distinguished guest. After turning and defiantly facing this menace, the bird flew about 200 yards over to the next field. Pursued by the cars, the bird returned to field No. 1 where a third car joined the chase. With three cars converging at the same time, the previously tolerant bird took northwesterly leave at 10:30 A.M. and has not returned. *Roger C. Johnson, 630 Harmony Circle, Wayzata, Minnesota.*

The Strange Case of the Stuck Duck — Our 3 acres of woods on the west bank of the Mississippi River in Brooklyn Park has been for years a favorite nesting area for Wood Ducks. We often notice pairs flying from tree to tree investigating likely nesting holes while we are getting up in the mornings and eating breakfast. On the morning of April 11, 1968 I noticed a female fly up to a hole in a tall straight basswood and appear to get about half way into the cavity but could get no farther. The male, as males usually do, flew to a limb 8 to 10 feet away to await the female's departure following her investigation. This was at 7:10 a.m. I watched almost continuously for nearly a half hour during which time the duck's tail flipped up and down now and then as though she were making vigorous efforts to squeeze on into the cavity but without success. I glanced out to check her plight periodically until a somewhat delayed departure for the office at 8:15 a.m. Mrs. Breckenridge continued periodic checks until she left for an appointment at 1:00 p.m. and to her increasing astonishment the situation remained the same with the male sitting unconcernedly on his perch. He probably could not actually see her at the cavity entrance but was patiently (?) awaiting her departure. Hearing of the unusual behavior of the pair and feeling sure that the female was inextricably stuck in the opening, I returned home at 4:00 p.m. to find the situation unchanged with the male still attentively waiting. I knew my neighbor, Carl Swanson, would be concerned about such a "lady in distress" and I also knew he had a long extension ladder. We soon had the ladder sections assembled and ready for the rescue operation. The male finally flew as we approached to within about 50 feet of his perch but the duck still had not extricated herself. As we leaned the ladder

against the tree the vibrations stimulated the bird to greater exertions and she finally succeeded in twisting about and flew away apparently unharmed — exactly 9 hours and 30 minutes after attempting the entrance. Of course the attentiveness of the male in remaining without even shifting its position for this long a period seemed almost unbelievable. And what made the case even more strange was the fact that on investigating the hole, which was 33 feet above the ground, I found that the entrance was adequate in size to have admitted the bird and the cavity, although small, had no irregularities which in my judgment could have caught the head of the bird or in any other way prevented the bird from backing out. And so this mystery story, unlike many, remains a mystery. But in case some other house-hunting Wood Duck appears on the scene, I did remove a quantity of rotted wood thus enlarging the cavity to accommodate a future clutch of Wood Duck eggs. *W. J. Breckenridge, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*

Late Record for the Eared Grebe — The freeze-up in the Duluth harbor was earlier than usual in 1967. On the night of November 27-28th ice formed over the whole harbor and in the morning Mr. W. Swanson, who lives on Minnesota Point, noticed a bird frozen in the ice about 100 yards off shore. On the 29th he decided the ice was thick enough to hold a boat so he pushed one out over the ice and retrieved the bird. It turned out to be an Eared Grebe in winter plumage — the first fall record for the Duluth area. It is also the latest fall record for the state. The previous late date, which was exceptional since this species is usually gone by early October, was November 7, 1964 in Lac Qui Parle County. The grebe is now in the collection of the University of Minnesota at Duluth. *Mrs. Janet C. Green, 9773 N. Shore Dr., Duluth, Minnesota.*

A Flock of Varied Thrushes on the North Shore — Although the Varied Thrush has almost become a regular winter visitant to the state, there are usually just one or two reports of single birds a year. However, in January I received the following letter from Jean Petersen, who lives in Tofte, Cook County, reporting a flock of Varied Thrushes that her family had seen on January 13, 1968. "I was sitting at the kitchen table when I noticed a bird that looked like a robin fly into a birch tree across our driveway. When I checked it out with the glasses, I saw the bird had two wings bars! When he turned and I saw an orange breast with a black band across it. I suspected a Varied Thrush but wanted to get closer for a better look but I was afraid it would fly away before I could get a coat and boots on." "Ward (my 14 year old) was just walking out of the yard to go play with a friend so I called him back, handed him a pair of glasses and told him to see if he could get close enough to see what that 'strange bird' was.

"Ozzie and Steve were watching Ward out the window while I went to put on my boots and coat. Then they yelled at me that there was a flock (of 5 or 6 birds) and they were flying. "When Ward came in he said there was a flock but he had only seen 4 birds alike before they flew. He said he didn't know what they were but they 'looked like Robins only they had two orange wing bars, an orange stripe over their eyes, an orange breast with a black band across it.

"Then I went down in the woods but it was so brushy where they were that the most I could see together at any one time was two. I got some good clear looks at them which left no doubt in my mind that they were Varied Thrushes.

"With all the Mountain Ash berries we have this year I told my family to keep their eyes open for unusual birds like the two Robins we had on the 5th or the Yellow-shafted Flicker we had on the 11th but I never expected anything quite like this!"

I also received the following three reports of single Varied Thrushes in the Duluth-Two Harbors area last winter. Late December (before Christmas) until December 29, 1967, on the North Shore near the Lakewood Pumping Station of Duluth at the feeder of Mrs. Ruth Gustafson. January 14, 1968, Woodland Ave.,

Duluth, seen by Mrs. Marie Elmgren, described and reported to Mrs. Ruth Kuchta. Late January through at least mid-February, North Shore at the Stewart River, Lake County, at the feeder of Mr. H. Koop. It was seen there by Robert Russell on January 28, 1968 and by Mr. and Mrs. Harvey Putnam on February 12, 1968. February 1 and 23, 1968, one seen in Grand Marais by Mrs. Harold Benson, reported to Jean Peterson. *Mrs. Janet C. Green, 9773 N. Shore Dr., Duluth, Minnesota.*

Fall Records of White-winged Scoters — On October 13, 1967, as Lincoln Gray and I were crossing Little Pine Lake near Perham, Ottertail County, we flushed three White-winged Scoters from the lake. The white wing patches, the overall dark coloration and the size (larger than any of the American Coots which we had just encountered) helped us identify these birds. Since dusk was approaching and since we saw the scoters only in flight as they flew low and fast over the water, Lincoln and I had no chance to determine the sex of these birds. On November 18, 1967, I saw a single male White-winged Scoter flying over Lower Red Lake near Ponemah, Beltrami County. Large size, black body color, white around the eye, and striking white wing patches were noted. Because of distance and the angle of observation, a close study of the bill was not possible. *John A. Hart, 309 East Second St., Morris, Minnesota.*

A Fall Record for the Peregrine Falcon in Western Minnesota — On September 16, 1967, I saw an immature Peregrine Falcon flying parallel to Artichoke Lake, Big Stone County. From my distance of 150 feet, I was able to distinguish all the important field characteristics (dark "sideburns"; streaked underparts; dark brown back). It is interesting to note that in the fields near Artichoke Lake were over 2000 migrating Franklin's Gulls. It is a possibility that the young migrating falcon was attracted by these birds. *John A. Hart, 309 East Second St., Morris, Minnesota.*

Exceptionally Late Yellow-throated Vireo Record — There are few records for vireos in Minnesota after October 15. It seems very noteworthy to me then, to record a Yellow-throated Vireo on October 26, 1967, at Morris, Stevens County. By October 26, most of the passerine migrants had come and gone. The weather had become cold, the temperature going below freezing even during the day. A Yellow-throated Vireo I observed on the 26th seemed in good health as it foraged about in the lower branches of a bare deciduous tree. I have seen many Yellow-throated Vireos before, but, because of the late date, I took notes on this bird's description. I noted a small bird, (larger than most warblers), with a very yellow-green back. The bird had two white wing bars, and its abdomen was whitish gray. The throat had a very definite yellow cast. The vireo also had yellow "spectacles." *John A. Hart, 309 East Second Street, Morris, Minnesota.*

A Late Dickcissel Record and an Early Snow Bunting Record — On September 29, 1967, while I was observing migrating sparrows in a bit of brush in central Traverse County, I observed a Dickcissel. While this is not the latest date on record, it is much later than the usual departure date for this species from the Red River valley area. This Dickcissel had the reddish in the bend of the wings, and the grayish underparts of a spring or summer bird, but the yellow on the throat and the black bib were not nearly as distinct.

On October 6, 1967, I flushed 15 Snow Buntings from a dried alkaline flat at Salt Lake, Lac Qui Parle County. The birds were in fall and winter plumage (brown on crown and white wing patches). The birds wheeled in air and then resettled on the salt flats. *John A. Hart, 309 East Second St., Morris, Minnesota.*

Field Sparrows in Pope County — Earlier this year I had discovered a colony of Field Sparrows at Glacial Lake State park near Starbuck, Pope County. Visits to the park during the fall revealed that the Field Sparrows were flocking not with Clay-colored Sparrows, their summer counterparts, but rather with migrating

juncos. It is interesting to note that even though Glacial Lake State Park is north and west of the usual range of this species in Minnesota, Field Sparrows remain there just as long in the fall as in their normal Minnesota range (Roberts, 1932, gives October 10, as the average fall departure date for southern Minnesota, and October 17, that for Fillmore County.). Of the two Field Sparrows, observed on October 18, one was an immature, with pink bill, white eye ring, but with a crown not quite as strikingly russet as in an adult, and with faint streaks on the upper breast. *John A. Hart, 309 East Second St., Morris, Minnesota.*

Possible Gyrfalcon at Duluth — On February 5, 1968, Chuck Easterberg and I were birding on Park Point in Duluth. Since both the harbor and lake were frozen, we could only find a few Snowy Owls which frequent the area in winter. Finding an owl sitting on a pile of ice on the lake side of the Point near shore, I got my camera and slowly approached the bird to get a few photographs. When I was about 30 feet away, the owl took off and flew out over the lake directly away from us. When the owl was about $\frac{1}{4}$ to $\frac{1}{3}$ mile away, it flew toward another bird that we had not spotted before sitting on the ice. As the owl approached, the second bird took off and flew farther out over the lake and finally landed about $\frac{2}{3}$ to $\frac{3}{4}$ mile away, where only its shadow could be seen against the white background of ice. We did not have a scope with us, and we could not walk out on the ice, so that it was impossible to get a close look at the bird. Our first impression had been that we had another Snowy Owl because the bird was about the same length and color as the owl. But we had immediately noticed that the bird had much slimmer wings and body, and that it flew with a more steady and powerful stroke. It was then that we realized that the bird was very possibly a light-phase Gyrfalcon. After calling Janet Green and describing the bird to her, she said it probably was a Gyrfalcon. After about 45 minutes, we returned to Park Point, but the bird was gone. We scanned the ice in the area for about an hour but could not find the bird. Even though we had good light on the bird (the sun was behind us and to the right), and the size, shape, color, and flight would suggest a Gyrfalcon, we could not identify the bird for 2 reasons: 1) the distance between us and the bird was considerable, and we only had a 'going away' look at it; and 2) the white background of ice and snow made it difficult to see a consistently clean-cut silhouette. Though the bird was most likely a Gyrfalcon, conditions were tricky enough to make positive identification impossible. *Kim R. Eckert, Box 465, St. John's University, Collegeville, Minnesota.*

EDITOR'S NOTE: On January 31, 1968 Raymond Naddy of the Duluth News-Tribune received a phone call from Mr. Irv Johnson of Superior, Wisconsin (the other side of the Duluth harbor) describing a bird he had seen that day which was probably the same Gyrfalcon. He saw the bird on a telephone pole near St. Mary's hospital in Superior and was able to drive right up to it and had a very good look at it. He said he was very familiar with Snowy Owls which he sees constantly along the same stretch of road and that this bird, although the same color as a Snowy Owl, was definitely not an owl but a hawk. When he got home and looked it up in a bird book, he realized that he must have seen a Gyrfalcon. Mr. Johnson reported seeing the bird again in the same area on February 19, 1968. It has not been seen since although several birders in the Duluth area tried to find it. *Janet C. Green.*

Woodpeckers at Windom — I had a most interesting fall bird watching. . . . I had all three kinds of local flickers in my yard overlooking the Des Moines River in Windom. They were the Red-bellied, Red-shafted and the Yellow-shafted. They were all in the yard eating ants within a matter of hours and they were all observed by my wife Irene and myself through glasses. The Red-shafted Flicker looked larger than the common Yellow-shafted and had red slashes on the cheeks. When it flew it had a distinct red coloring under the wings and tail. The Red-bellied

stuck mostly to a plum thicket I keep on the north end of the yard but it had the full cape on the back of the head. It was a much smoother looking bird than the other two. This was on October 10, 1967 on a clear day. *J. Morton Smith, 893 Des Moines Drive, Windom, Minnesota.*

Possible Loggerhead Shrike in December — Bird noticed from car, sitting on fence. Had shrike size and configuration including turned-down upper beak and black mask, gray color up front and darker wing and tail feathers. Bird flew to ground four feet down and moved about a little, then flew back to fence perch. Got him in binoculars to check distinctive markings and saw what I thought was lack of any marking on chest, dull gray. Then used Peterson's Field Guide, then checked bird for color on lower mandible. Could see no light color, but distance and overcast made seeing difficult. Couldn't tell whether mask went over bill or not. Bird flew down to ground again and I lost contact. Identified bird as Loggerhead Shrike by his apparent lack of barred breast and low to ground movements. I wish I had known Loggerheads were scarce in winter, I sure would have tried harder. *Edmund H. Winter, Adrian, Minnesota 56110.*

Where Are Our Kingbirds? — More and more in recent years we hear the comment "I'm sure we saw many more Bluebirds or Marsh Hawks or House Wrens 10 or 15 years ago than we do today. Such general impressions of abundance are often inaccurate and of little value since actual figures are necessary to support such statements. Within the last couple of months I have begun to realize that kingbirds are becoming scarce. On June 16 Mr. Richard Barthelemy and I made a U.S. Fish and Wildlife Service breeding bird survey on which we followed secondary roads for 25 miles in a zigzag line from east to west north of Lake Minnetonka. We stopped every half mile for three minutes of looking and listening. Only 2 Eastern Kingbirds were noted. A similar survey made by Dr. Louis Oring and me on June 27 southwest of Minneapolis in Sibley and Nicollet counties produced only 3 Eastern Kingbirds. On July 1 to 3 I drove out Highway 7 to Ortonville, crisscrossed numerous secondary roads in and about the Lac Qui Parle Wildlife Refuge and returned to Minneapolis and saw only 4 Eastern Kingbirds. These numbers fell far short of my recollections of the abundance of this species in past years. Fortunately in this case I do not have to rely on my impressions since I recalled that Dr. T. S. Roberts, Mr. William Kilgore and I had recorded numbers of Eastern and Western Kingbirds seen during the last two weeks of June 1926 in southwestern Minnesota. These counts were made in order to determine the proportions of the two species of kingbirds found in that area. Our written notes record the following observations:

	<i>East. Kingbird</i>	<i>West. Kingbird</i>
Minneapolis to Wilmar, June 17, A.M.....	6	0
Wilmar to Pipestone, June 17, P.M.....	32	13
Pipestone to Luverne, June 22.....	40	27
Pipestone to Madison, June 25, A.M.....	34	28
Madison to Ortonville, June 25, P.M.....	17	7
Ortonville to Clinton, June 26.....	20	13
Ortonville to Foster, June 27.....	18	10
Ortonville to Olivia, June 28, A.M.....	84	10
Olivia to Minneapolis, June 28, P.M.....	16	1

My recent surveys did not cover these exact roads but were made in similar agricultural areas in southern Minnesota. No Western Kingbirds were observed this year although I am sure a few pairs do exist in the region. It is my impression that the species of flycatchers living in forested areas have not been reduced as seriously as those inhabiting open agricultural lands, but I repeat this is only my impression of the situation.

It would be a very simple task to rerun in 1969 the exact routes covered in the 1926 surveys. Anyone living in or near these areas who wishes to volunteer, please get in touch with me and we can discuss the details of such surveys.

I can not at this time more than guess that pesticides may be concerned with this drastic reduction of kingbirds. If anyone finds any road-killed kingbirds of either species in this part of Minnesota, be sure to slip them into a plastic bag and freeze them. Get in touch with me and I will make every effort to get a pesticide residue test made of these carcasses. *W. J. Breckenridge, Director, Bell Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*

Kentucky Warbler Seen in Minneapolis — As Carol Pieper, Shirley, and I were leaving T. S. Robert's Sanctuary about 7:30 P.M. on May 14, 1968, I heard a strange song, one I had not heard before. The Mourning Warbler's song came to mind, but somehow this seemed different. A longer song with different phrasing and repeated about once a minute. As we approached the waters edge just inside and to the left of the east gate, a bird flew to the fence near some bikes parked there. When a dog came by, this bird flew up on the fence about two feet high and perched there from 10 to 15 seconds. We immediately saw a bird with all bright yellow underparts: chin, breast, belly, and under tail coverts. The black crown and black triangular shaped spot on the ear patch extending part way down the neck was immediately evident, as was the yellow spectacle over the eye. The back parts appeared olive green; legs were light colored.

Several groups of teen aged boys were entering and leaving the sanctuary at this time and our birding activities ceased as the park police arrived in response to a call that one group of three young men were shooting an air pistol inside the sanctuary.

Binoculars used: 10X40; 7X50; and 7X35 W.A. *Don Bolduc, 4211 Blaisdell Ave., Minneapolis, Minnesota.*

Western Tanager at Morris — On Sunday May 26, 1968 at 4 P.M. in answer to a call from Mrs. S. S. Flaherty I hurried over to view a Scarlet Tanager and found the well known birder John Hart there keeping tabs on the bird. Back home, at a few minutes past 6:00 P.M. just as we sat down to eat, a male Scarlet Tanager landed in a tree about 20 feet from where we sat. Within a couple of minutes it was joined by another and also by what I thought was a female. They stayed within sight in one of three sparsely leaved trees for 20 minutes or more. In the meantime although I had never seen a female tanager the memory I had of the pictures did not correspond with the bright yellow body, black back and wings and the very distinctive red head. I hurried to look it up and realized we had been viewing the Western Tanager.

The Western had left the immediate area during the time I was away from the window checking the book. However I relocated the two Scarlet Tanagers and kept track of them for two hours while trying to locate the Western. At 8:00 P.M. the Scarlets took off across the lake to the east and I finished my meal.

The Western was well marked as were the others, we had an excellent view of all three all of the time we were watching them. *Frank and Mary Breen, Morris, Minnesota.*

Yellow-headed Blackbirds in Cass County — Yellow-headed Blackbirds were unusually conspicuous in the Cass Lake area during the 1968 breeding season. Large numbers were observed in the Mississippi River marshes in Cass County where previously they had been recorded only occasionally. Numerous queries as to the identification of "the birds with the yellow heads and white in the wings" further indicates that the casual observer was also seeing a species not normally encountered. Could it be that Yellow-headed Blackbirds shift their breeding areas east to the wooded zone when the prairie marshes are dry? We think that this occurs with several species of waterfowl. The spring of 1968 found the prairies in western Minnesota and North Dakota quite short of water. An emigration of drouth-displaced Yellow-headed Blackbirds may account for their abundance in Cass County. *John and Ann Mathisen, 2317 Park, Bemidji, Minnesota.*

Western Grebe in Crow Wing County — On June 19, 1968, my wife, Liz, and I were working the shore line of Platte Lake, southern Crow Wing County, doing a casual bit of birding from a large aluminum row boat. Platte is a shallow lake of almost 1700 acres. Some of the shore is sandy or rocky, but much is of the floating bog type. There are several rice beds later in the year, and three fairly good sized stands of canes.

It was early in the evening and the sky was clear and sunny. As we pushed through a patch of rushes, I saw a bird swim into the open a couple of hundred yards away. I focussed my glasses on the bird and realized we had something different. It was a large bird, with a snow-white neck and dark body and long pointed bill. The bird sat motionless as I turned the boat so we could both observe it. As we moved in it's direction it dove and reappeared in the rushes from which it had emerged originally. We could plainly see we had a Western Grebe on our lake. We approached quite close before it dove again. It's reddish eyes were much in evidence. It re-appeared once more, eyed us with suspicion and then disappeared for good. We searched for signs of another bird or a nest but with no success. Eight days later a search of the same area failed to produce any sign of the bird or of a nest. *T. R. Campbell, 5267 W. Bald Eagle Blvd., White Bear Lake, Minnesota.*

Lark Bunting Seen in St. Paul — May 27, 1968 was a damp, overcast day in St. Paul, but the situation was actually "cloudy-bright." I was on my way to dinner at the Skychef Restaurant at Holman Airport when I passed a commemorative plaque mounted on a stone podium just beyond the new Lafayette bridge going east on Fillmore Avenue. There was a bird perched directly on top of the plaque, which at first glance appeared to be a Bobolink. A quick double take revealed not a Bobolink, but a perfectly colored male Lark Bunting. I circled back immediately and parked within ten feet of the bird. I observed it at this close range for a full fifteen minutes and even as I left the bird remained. I made four trips back to the area but found no further trace of the bird. *Ken Haag, 679 E. Jessamine Avenue, St. Paul, Minnesota.*



Common Crow, June 12, 1967, St. James, Watonwan County.

Photo by Earl D. Kopischke

Summer Tanager Seen in St. Paul — On May 11, 1968 I was birding in Como Park, St. Paul. About 9:20 A.M. I was walking along the edge of the woods, just south of the Conservatory when I saw a flash of red in a tree just ahead. My first reaction was that it was a Scarlet Tanager but several more glimpses as it flew from tree to tree revealed that it did not have black wings nor was it completely red. After about five minutes the bird flew to the ground about 25-30 yards away. I observed it both with the naked eye and with 6 x 30 binoculars. The bird was a bright orangey-red about the head and had patches of a similar color on the back and sides. The rest of the body was a dull yellow-green. There were no wing bars. I observed it for approximately five minutes till it was scared away by children on bicycles. Again I got a good look and observed it several minutes, noting the characteristics given above and also noting that it was yellowish under the tail. I remained in the park another hour but did not see it again nor did I see it on a return visit to the park on May 15th. *Manley E. Olson, 1285 N. Cleveland, St. Paul, Minnesota.*

Prairie Warbler Sight Observation — I want to report seeing a Prairie Warbler on Thursday morning, May 30, 1968 at about 9:00 A.M. at my home. The bird was high in oak trees in a heavily wooded area near our house. He was somewhat side-lighted, so the view I had was mostly of his yellow underparts, the heavy black stripings on his sides and the lack of any white on the wings or tail. I did not get too good a look at the face and did not see the cinnamon stripings on his back. Also,



I did not notice the "tail wagging" as Peterson mentions in his Field Guide. I very distinctly heard the song for about 20 minutes, this was how I first found the bird. I knew from previous experience with the bird in Maryland that the Parula Warbler's ze-ze-ze-zz buzzes "over the top" so to speak. The Prairie Warbler's song is similar but does not go "over the top". It goes up the scale and stops. I have observed and heard both the Parula and Prairie Warblers in Maryland. *Mrs. Andrew Fuller, 14505 McGinty Road, Wayzata, Minnesota.*

Pine Siskin Nest — First noticed the female on the nest in our yard on April 25, 1968. Two young hatched in the nest on April 29th. The male fed the female on the nest but apparently did not relieve her on the nest. I have attempted to photograph the nest but do not know the results. The female is tame enough to take food, scrambled egg, from my hand while she is on the nest. The male is more shy, but will come to the nest when I stand six feet away. *Mrs. E. M. Wachsberger, 5234 Fourth Avenue East, Grand Rapids, Minnesota.*

Extremely Late Date for the Upland Plover — (Editor's Note: The following information was received from Mrs. Anderson when Ronald Huber questioned her on the lateness of this observation. This date is highly unusual and would probably represent the latest date on record for North American Continent.) On October 19, 1967 a single Upland Plover was observed near Borup, Norman County, by myself and Mrs. Leslie Welter. It was observed for about three minutes at 100 feet under good light conditions with 7 x 35 binoculars. There was no question in our minds about the bird, we noted the small head and how it held its wings up before folding them down. We are both familiar with the bird, but we were not familiar with late departure dates for this bird or we would have taken more notes about it at the time. *Mrs. George A. Anderson, 1458 S. River Road, Fargo, North Dakota.*

Odd Plumaged Cowbirds — During the week of June 10, 1968, while driving to work I noticed a black-colored bird with white on its wing. I paid little attention to this since I was in a hurry at the time. Then on June 18, while working on a project, I noticed what looked like a cowbird except it had white wings. The location was in Section 29 of Antrim Township, Watonwan County. I stopped the car on the road and looked closely at the bird with my 8x 30 binoculars. It was a male Brown-headed Cowbird with white wing feathers. It was with a female cowbird. I then thought of the first bird I had seen and I believe it was also a cowbird with white outer wing feathers. This bird was seen in Section 23 of Feldon Township, Watonwan County. There is the possibility that these were color marked birds which were being studied. If anyone knows of such birds, please let me know. *Earl D. Kopischke, Game Research Center, Madelia, Minnesota.*



BOOK REVIEWS

COMMON BIRD SONGS. Donald J. Borror. Dover Publications, Incorporated, New York, 1967. \$2.50.

Dover Publications again has come up with a bargain for the enthusiast in ornithology. This time it is not a reprint of an ornithological masterpiece, but a brand new record of bird songs. The 33 $\frac{1}{3}$ r.p.m. 10" disc is a good quality reproduction, recorded by one of the master bird recorders, Dr. Donald J. Borror of Ohio State University. The selections are well chosen and there are several examples of most songs so that the listener can get a feel for individual variations. In addition to the record there is an accompanying 27 page manual giving a brief description of the song types of each species represented on the recordings (60 species). There is also a small black and white illustration of the bird. For a professional, the last six pages of the manual have some valuable information as it lists the location and the month in which the recording was made. It also has several sound spectrographs which can be a useful tool in teaching a class about the production of bird song.

There are two unique things about this recording. (1) It is arranged in groups of songs that are similar, beginning with the simpler songs and progressing to those of greater complexity, (This should be a help to the individual desiring to learn bird songs with the aid of a record) and (2) Its cost. Where else can you get a bird record for \$2.50 with so much to offer?

If I have any criticism it would be in the title, "Common Bird Songs". I suppose that if you are at the right place at the right time any bird might be common, but six of the 12 warbler songs produced would be decidedly uncommon in Duluth and 16 songs we really could not expect to hear except on the rarest occasion. At least in southern Minnesota most of the birds could be heard during a summer.

I feel that Dover again has done something for the bird lovers of America, and I wish to extend to them and Don Borror my personal approbation.

P. B. Hofslund, Biology Department, University of Minnesota, Duluth.

SONG AND GARDEN BIRDS OF NORTH AMERICA and WATER, PREY, AND GAME BIRDS OF NORTH AMERICA by Alexander Wetmore and other eminent ornithologists. National Geographic Society, Washington, D.C. 1965. The two volumes are priced at \$11.95 each, or if you would desire a deluxe cloth slip case, \$25.00 for the set.

I am surprised that these two volumes have not been reviewed in "The Loon" before. Maybe it is because no review copies have been received by the people who do most of the reviewing for our publication. In my opinion these are the two best volumes available for the amateur bird watcher. The species accounts are written in an easily read style, the special features are interesting, and the illustrations are superb. Add to that the unusual bird song record album tucked into the back cover of each volume and you have a set of bird books that would rival anything Wally Wimpel used to have on the old Fibber McGee and Molly show.

The illustrations are superb. Frederick Kent Truslow's "Yellow-headed Blackbird" on page 180 of Volume 1 and his cover portrait of the Eastern Meadowlark I especially enjoyed. Add to that such artists with the camera as Elliot Porter, Arthur Allen, Allan Cruickshank, Olin Sewall Pettingill, Jr. plus many others and the paintings of Walter Weber and Allan Brooks and you have a beautiful book. Two volumes make it doubly so.

I am not terribly impressed with the species accounts. They are relatively innocuous and are not designed to add anything to the knowledge of the bird world. Still the few that I have read are pleasant to take and they do bring out some little bits of information (such as the eye rings in the Mourning Warbler fall females and immatures) that often do not appear in books designed for the type of audience this book has been written for.

I once heard Dr. Wetmore being chided for lending his time and energy to the

production of a book of popular and not scientific nature. I couldn't disagree more. I think this is a very worthwhile effort and that more of the people with his great knowledge should endeavor to bring out their knowledge in such a palatable way as he has in these two volumes. It has my unqualified approval.

P. B. Hofslund, *Biology Department, University of Minnesota, Duluth.*

A LIFETIME WITH THE BIRDS. Earle R. Greene. Edwards Brothers, Inc. Ann Arbor, Michigan. 1966. \$6.00.

Earle Greene has compiled a logbook of his lifetime of loving birds. Anybody knowing Earle will find it a fascinating history, well illustrated, and full of homey remarks that may bring back memories of their own lives.

To other readers the book will be a disappointment. First of all, it reads like my diary which, though of greatest enjoyment to me because it brings on nostalgia, is not likely to thrill even my closest acquaintances. I find it difficult to see the interest in "Charlotte's son, Peter Wendt, was away at school", particularly when I can't remember hearing of Peter before or after this sentence. On the other hand I really would have liked to have learned a lot more about Greene's eight years with the Biological Survey in the early thirties, which I am sure were a good deal more exciting than he has indicated in his log.

Maybe I have been over critical, I just do not like the logbook style of writing. I'm sure that people will find things of interest, some of it worthwhile historical interest. I know that I shall thumb through the book again and again to see pictures of my birding friends including those of my good friend Earle Greene.

P. B. Hofslund, *Biology Department, University of Minnesota, Duluth.*

THE PSYCHOLOGY OF BIRDS. Harold E. Burt. Macmillan Company, New York, 1967. \$5.95.

THE PSYCHOLOGY OF BIRDS: AN INTERPRETATION OF BIRD BEHAVIOR presents a study of birds both under natural conditions and under controlled conditions in the laboratory and field. Studies by each method are presented in the chapters beginning with "Sensations and Perceptions of Birds" and ending with "Personality and Intelligence." The other chapters take up drives, instinct, learning, migration, social behavior, communication, and home and family life.

The book is adequately indexed, and each chapter contains reference notes for those who wish to find original articles in sources such as the *Auk*, *Wilson Bulletin* and *Bird Banding*.

In interpreting bird behavior, the author might have fallen into erroneous anthropomorphisms. I do not believe he has done so. Where he is anthropomorphic, it is obviously for style; he is writing for an interested layman, not for an ornithologist. For example, in discussing courtship posturing he explains that the male White-breasted Nuthatch and Evening Grosbeak thrust a sunflower seed toward the female. Then he writes: "Of course, birds have no monopoly on this approach. We take her out to dinner or merely to a drugstore for a malted milk and/or a hamburger and this is quite routine. But with birds the performance is definitely ceremonial rather than nutritional." Perhaps the style is awkward (I object to "and/or" in this instance), but the point is made.

Actually, when it comes to interpretation, the author is cautious. When discussing insight learning, he presents studies which both affirm and deny insight in birds, then concludes with reference to a study which tends to minimize insight learning in a particular performance.

The book is comprehensive. It includes a vast number of examples to support various statements. One who wants a handbook to bird behavior would find the book useful. On the other hand the comprehensiveness and number of examples sometimes make for rather brief statement of a subject and disjointed reading.

There are 242 pages between navy blue cloth covers. Eleven full page black and white sketches by Peter Parnall enhance the text.

—Fred Leshner

M.O.U. ENDOWMENT FUND

In a previous issue of *The Loon* you were asked to contribute to the Minnesota Ornithologists Union Endowment Fund. Our campaign was most successful with over \$600.00 being added to the fund. We, of course, can use further help from each and every one of you. At a recent board meeting of the M.O.U. Officers and Club representatives, many projects were discussed and steps were taken to implement several of them. The preservation of Salt Lake is still a very live project, education programs are needed concerning our Birds of Prey and scholarships are needed by worthy students. Many of these and other types of projects can be realized with your help.

SUGGESTIONS TO AUTHORS

As you all know the editor's job is a voluntary one and to make this job a little easier and less time-consuming I would like to make a few suggestions to authors when they submit articles and notes for publication in *The Loon*.

As editor I would like to encourage people to send articles, notes and observations to me. If possible all articles and notes should be typewritten and double spaced on one side of the paper. This is the only way they can be submitted to the printer. The more material received the better the magazine will be. When submitting observations of birds, either rare, accidental, or difficult to identify please try and follow the suggestions made by Janet C. Green in her article "What Constitutes an Acceptable Bird Record," (*The Loon*. Vol. 36, No. 1, pages 4-6). If photos are submitted with articles they should be clear, *black* and *white prints*. If the author of an article would like reprints please let me know when the article is submitted. Reprints will be furnished at the author's expense. Cost of reprints depends on length of article and number wanted.

CHECK-LIST OF MINNESOTA BIRDS

The newly revised check-list of Minnesota birds is still available. This list contains 292 regular species and 23 casual species found in Minnesota. It is designed for use in the field and can be easily contained in any of the latest "Field Guides." The cost is 5¢ each plus 5¢ postage, or 50 for \$1.25 plus 15¢ postage. All members of the M.O.U. and their bird-watching friends should be using this new list.

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The LOON

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CONTENTS

The Loon Cry	67
The Agassiz Refuge Cormorant Colony David R. Cline and Eric Dornfeld	68
The 1967 Christmas Count in Minnesota Robert B. Janssen	73
The Spring Season Ronald L. Huber	76
Minnesota's 1966-67 Snowy Owl Invasion Thomas H. Nicholls	90
A Study of Wintering Horned Larks in Southwestern Minnesota Bertin W. Anderson and Richard J. Oehlenschlaeger	93
Notes of Interest	97
Book Reviews	102



*COVER: Young
Cormorants at
Agassiz Refuge.
See pages 68-72.*

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PURPOSE OF THE M.O.U.

The Minnesota Ornithologists Union is an organization of both professionals and amateurs interested in birds. We foster the study of birds, we aim to create and increase public interest in birds and 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 M.O.U. officers wish to point out to those interested in bird conservation that any or all phases of the M.O.U. program could be expanded significantly with gifts, memorials or bequests willed to the organization.

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THE LOON CRY

An alert reader caught a printing error in the last "Loon Cry." The twelve secretaries to the pope were in charge of "beatifications," not "beautifications"! To beatify is to make blessed. To beautify is to make lovely. It's only a vowel, but the difference in meaning is significant. Though the two words are cognates, beautification is the practice of a religion, usually the Roman Catholic religion. In the United States, beautification is the responsibility of the President's wife.

After you ponder the preceding digression consider the challenge of identifying a bird described to you by a person who does not regularly watch birds. If this game has not suggested itself to you, perhaps it is because no one has phoned you to describe an exotic bird which is feeding on his lawn. Try these, then check your answers. You may have descriptions which surpass these.

1. These brownish birds at my feeder look like Cardinals but lack the prominent crest and red bill. There is some rose color on the breast, and several of them show yellow blotches on the breast as well. I looked in Robbins' guide and the bird looks most like a Pyrrhuloxia." (This is in, say, Minneapolis, during the winter.)
2. "These big birds running around my back yard look like white pigeons with long, yellow legs."
3. "While we were camping at Beaver Creek we saw several of these little mouse gray birds with a crest and beady black eyes."
4. "There is a whole flock of these fat blackbirds feeding in the grass. They have long, black bills and spots on the belly." (It is autumn.)
5. "While we were pheasant hunting we flushed a whole flock of Great Horned Owls from a grove of pine trees." (A report from a hunter. The birds look superficially like Great Horned Owls.)

Standard procedure in puzzling out descriptions is to ask if the bird is smaller than, as big as, or larger than a Robin or a House Sparrow. Once one gets some idea of size, specific questions about obvious features such as crest, cap, eye line, breast marks and wing bars should narrow the possibilities. Perch preference, feeding habits and habitat are also helpful information. Even with these clues, some identifications will remain impossible.

Puzzling out identifications can be frustrating, but it can also force the birder to "see" or think about details which he has ceased to look for or think about as his facility has become automatic.

Answers to descriptions of birds by non-birders:
1. Immature and female Cardinals
2. Leghorn pullets
3. Tufted Titmice
4. Starlings
5. Long-eared Owls

Fred Lester

THE AGASSIZ REFUGE CORMORANT COLONY

David R. Cline and Eric Dornfeld

Historically, the Double-crested Cormorant has existed in Minnesota as a common migrant and summer resident (Roberts, 1932). Unfortunately, recent evidence indicates that this interesting water-bird has all but been eliminated as a nesting species in the state. It is paradoxical that simultaneous with the widespread and growing concern being shown for the deteriorating status of more glamorous components of the bird world, e.g., the Greater Prairie Chicken, Trumpeter Swan and Whooping Crane, other less popular or less striking wildlife species are also losing out to man's ever intensifying technological advances on natural communities.

The recent work of Anderson and Hamerstrom (1966) has revealed a significant and widespread decline in Double-crested Cormorant numbers over portions of the upper Midwest. Their investigations in Wisconsin revealed an alarming decline in that state where it is believed no more than 30 nesting pairs now remain. Although colonies in North Dakota, Manitoba, and Saskatchewan that are undisturbed seem to be maintaining themselves, even these have been subjected to control practices and gunning pressure on occasion (Anderson, unpublished). Thus the future status of the species remains uncertain, even in more remote portions of its breeding range where protection from disturbing influences of man cannot be assured.

Cormorants were originally situated in several large colonies in Minnesota from the Iowa line to Lake-of-the-Woods (Roberts, 1932). The Heron Lake, Lake Shetek, Lake Minnetonka and Loon Lake colonies were especially well-known. By 1925, however, Uhler (1925) reported that only three active colonies remained in the state (Table 1).

The chief reason for the cormorant's incompatibility with man lies in its diet. The birds subsist almost entirely on fish which they capture by diving and actively pursuing beneath the water surface much as does the Common Loon. An early study on Lake Minnetonka revealed that crappies, sunfish, bass, and pike were taken along with certain rough fish (Uhler, 1925). Numerous other studies throughout the birds' range in North America have revealed, however, that fish species generally taken as food have little or no commercial or sport value (Mendall, 1936). But because of its predilection for fish the cormorant has gained the ill will of professional and sport fishermen alike. In the late 1940's there were even moves to obtain a state appropriation for a fund to pay bounties on the fish-eating cormorants in Minnesota. Although the bounty movement failed, permits were issued by the Minnesota Conservation Department to kill the birds, chiefly during spring migration but occasionally on their nesting grounds as well. As many as 1,200 cormorants were reportedly killed in the state during the spring of 1922 (Roberts, 1932).

Without question cormorants can be a nuisance especially when concentrated near the pound or gill nets of commercial fishermen. In such situations they frighten and injure fish caught in the nets. Such behavior has undoubtedly been the primary reason why these birds have been so severely persecuted in the vicinity of their nesting colony on Lake-of-the-Woods. Roberts (1932) reported that "fisherman grant them no quarter and destroy them whenever possible by shooting the adults and breaking up their nesting places on the islands in the lake."

Minnesota cormorants were given a degree of respite when the Mud Lake and

TABLE 1. CORMORANT COLONIES IN MINNESOTA, 1925-27

Colony	Date Observed	Observed By	Population
Lakes of the Woods	1927	Fryklund & Roberts	100
Lake Minnetonka	1925	Uhler	42
Kawishiwi Lake	1925	Surber	100

Rice Lake National Wildlife Refuges were established in the 1930's. On these public lands the birds were offered secluded breeding habitat which was, for the most part, well protected from human disturbance. The birds were quick to exploit the attractive situation and active colonies were soon present on both refuges. Unfortunately, the birds have since disappeared from the Rice Lake colony, while those at Agassiz Refuge have continued to survive.

Agassiz National Wildlife Refuge comprises over 61,000 acres of prime wildlife habitat in eastern Marshall County, and has been described in detail by Dill (1960). Formerly known as Mud Lake Refuge, it is situated on the bed of glacial Lake Agassiz, for which it was renamed in 1961. The Refuge is administered by the Bureau of Sports Fisheries and Wildlife in the Department of the Interior. Although managed primarily for the production of waterfowl, this unique wildlife area provides a diversity of habitats attractive to many of Minnesota's native birds and mammals. A recently updated bird list contains 242 species that have been identified there since establishment of the refuge in 1937. Among these is the controversial Double-crested Cormorant.

Station records show that cormorants have nested at Agassiz for the past 26 years. Undoubtedly the availability of a choice food supply (chiefly minnows available in ditches and below control structures) conveniently located in the vicinity of an undisturbed nesting site were the main attractants to the birds. These two requirements were listed by Palmer (1962) as being necessary for successful cormorant nesting.

Throughout the years the birds have shown a tenacity for maintaining their nesting colony on the southern end of a 33-acre island located near the center of the Refuge's 5,000 acre Agassiz pool. Here they have nested in dead trees, stumps and snags that remained following the flooding of what was once a spruce-

tamarack bog on the margin of original Mud Lake. Through ensuing seasons ice and wave action caused the gradual destruction of the elevated nesting sites until today only a single dead tree remains at the colony site.

Anderson and Ellis (1966) investigated this situation and discovered 25 active cormorant nests that year. It was not surprising that they found the birds living in company with Black-crowned Night Herons and Franklin's Gulls, among others, for the cormorant has been reported to nest in harmony with quite a variety of marsh-dwelling birds (Lewis, 1929, and Mendall, 1936). One cormorant nest was built in the lone dead tree while all others were situated on floating mats of vegetation amid the cattails surrounding the tree's base. Anderson and Ellis (1966) believed that the single tree at the colony's center was serving to attract other cormorants desiring to nest. Since these birds are known to return to the same general locality where hatched, their over-water nesting activities at Agassiz probably represents a compromise between a strong homing tendency and deteriorated nesting habitat, and illustrates the great adaptability of this species to a variety of nesting conditions.

During June, 1966, the authors conducted a thorough follow-up investigation of this unique colony. It appeared that about one-half (or 15 acres) of the 33-acre island was available for nesting. The lone-nesting tree still remained and was occupied by a pair of cormorants with two young. A thorough search of the surrounding emergent cover revealed 15 additional cormorant nests. These all contained either three to four chalky, dull bluish eggs, or newly hatched young. be precariously situated on floating mats. However, these others nests appeared to be of vegetation over water averaging 15 inches in depth. It was apparent that the adults were experiencing some difficulty in taking wing from amidst the dense growth of emergents surrounding their nests. Our nest search also revealed the

presence of eight other bird species nesting in company with the cormorants (Table 2).

TABLE 2. NUMBER OF NESTS OF VARIOUS BIRD SPECIES FOUND WITHIN THE AGASSIZ REFUGE CORMORANT COLONY, 1966

Species	Number of Nests Found
Franklin's Gull	180
Black-crowned Night Heron ...	64
American Coot	18
Double-crested Cormorant	16
Red-winged Blackbird	8
Long-billed Marsh Wren	4
Yellow-headed Blackbird	1
Pied-billed Grebe	1
Canvasback	1
Total	293

Franklin's Gulls by the hundreds circled over the island emitting their distress calls while wary American Coots sulked about in the emergent cover. It is quite possible that the gulls were serving as an anti-predator mechanism to the benefit of all the island nesters.

Nests of the cormorants consisted almost entirely of the leaves and stems of cattails woven to form a shallow nest bowl. They appeared to be situated on substrate provided either by old nests of other birds or by floating debris as suggested by Anderson and Ellis (1966). This was in contrast to the bulky nests of the Black-crowned Night Herons which were constructed primarily of tall reed grass stems crudely jammed together to form a nest base. One of these heron nests stood 36 inches above the water surface (Figure 1). Most of them contained three to four pale blue eggs which appeared somewhat like cormorant eggs but were shorter and rounder, and more bluish in coloration.

Prompted by the deteriorated status of the colony and aware of the cormorants' adaptability to various natural elevated nesting situations, action was taken prior to the arrival of breeding cormorants in the spring of 1967 to provide the birds a choice of more secure nest sites. Eight-foot long untreated tamarac posts were transported to the island and used to construct an artificial nesting platform eight feet square. This platform was located within 100 feet of the lone nesting tree and well within the established boundaries of the colony. Flax straw was spread over the rough log surfaces to pro-

vide a more comfortable substrate. A pole and platform was also constructed nearby by simply driving a 10-foot post into the soft pool bottom and nailing boards on its top.

Cormorants normally return to Agassiz on about April 12 in most years. After a settling down period, courting soon begins in earnest. Egg laying and nest construction usually occur between about May 10 and June 14, as reported by Mendall (1936).

A check of the colony was made on June 9 well after incubation had commenced. We were rewarded to discover five active cormorant nests on the artificial platform and one on the post platform. Four of the nests contained four eggs each and the remaining two, five eggs each. Arrangement of nests on the platform was very interesting. One nest was situated at each of the platform's corners, while the fifth was exactly at the platform's center (Figure 2). This spacing arrangement allowed about three feet between each nest. It appeared evident that the parent birds had purposely placed their nests at maximum distance apart on the nesting surface available to them.

Mendall (1936) described the territorial requirements of these birds and revealed that they are limited to the nest site and a very small area surrounding it. When nesting in ground situations, nests of a group may actually be in contact. Although a certain amount of intimidation display is seemingly necessary in maintaining these individual territories, physical encounters seldom occur between the nesting birds. Apparently all that the adults require is a place to stand when guarding the nest and a place to retreat to when feeding their young.

During a second visit to the colony in mid-July we were rewarded to find 15 fledgling cormorants hatched from the nests on the platform, and four healthy looking young in the single post nest (Figures 3 and front cover). This represented a hatching success of 70 percent. That many of these birds were later successful in reaching flight stage was evidenced by the numerous sightings of immature birds on the wing in late summer and throughout the fall. A peak number of 43 cor-

morants was sighted on Septmber 21, whereas in the previous fall only 27 birds were counted on any one day. On September 29, 19 immature birds were observed on the Refuge. These observations indicated that our efforts to encourage greater nesting success among the Refuge's cormorant population was a tremendous success in its' first year.

Similar attempts to encourage the successful nesting of cormorants have also proven successful on the Crescent Lake National Wildlife Refuge in Nebraska. There the birds have reportedly even



FIGURE I

FIGURE II



FIGURE III

taken to vacant artificial nesting structures placed out for Canada Geese.

Two additional platforms were placed in the Agassiz colony the past spring and will be watched closely for occupancy by cormorants. These efforts to provide for the needs of an all too often persecuted but aesthetically valuable wildlife species is an example of what can be done when concern for the conservation of our wild-

life heritage is put into resourceful action programs. It is significant, we believe, that the last remaining, secure breeding colony of Double-crested Cormorants in Minnesota is situated on a portion of the public domain. Thus all citizens of this state and country have an investment in the future of this bird as well as that of all other wildlife species which inhabit these lands.

Hopefully, cormorants will continue to add a savor of wildness to the outdoor scene as they wing over the Agassiz marshes each morning and evening moving between their island nesting colony and nearby fishing grounds, or as they cruise in to join a mid-day loafing party of White Pelicans on a sunny sand bar in Aggaiz pool. Such damaging factors as water pollution, pesticide poisoning, habitat destruction, and disturbance from too much human activity area too often combining to take a heavy toll of wildlife over extensive areas. It is, therefore, doubly important that these life-destroying influences of man are being minimized to the greatest extent possible at the Agassiz National Wildlife Refuge where the Double-crested Cormorant is making a strong bid to survive as a breeding bird in Minnesota.

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PHOTO CONTEST AN EDITORIAL

Most photographers these days are taking color pictures. This makes it very difficult for your editors to publish quality photos in *The Loon*. Most color photos when printed in black and white tend to be less clear and more "grainy". We have been receiving a number of high quality black and white photos and several of these are included with articles and on the front cover of this issue of *The Loon*. Your editors would like to give a chance to the color photographers to display their work in *The Loon*. This, of course, as a very costly process but by contacting several printers and talking cost with them we feel that for \$100.00 to \$150.00 we can publish a four color process cover on a future issue of *The Loon*. Is it worth it to do this? We would like to hear your comments and also at the same time we would like you to submit color photographs for consideration. The photographs should be of an interesting, but not necessarily unusual, bird subject. The photograph should be taken in the state of Minnesota. Good color and high clarity as well as the subject matter will be considered when choosing the winning entry. We feel that the photographs should be restricted to bird subjects only, for obvious reasons. *The Loon* is almost exclusively a publication of bird records and it is the feeling of the editor that the cover should be used to portray bird subjects not general subjects such as scenery. Why don't you send us your comments and your photos and from these we can make a decision on a color cover for a future issue of *The Loon*.

M.O.U. PAPER SESSION

The 1968 Annual Meeting of the M.O.U. will be held on Saturday, December 7, 1968 at the James Ford Bell Museum of Natural History, University of Minnesota, Minneapolis. Look for complete details on speakers, topics, films, panel discussions and the evening banquet and Thomas Sadler Roberts award winner in the next issue of the Newsletter coming soon.

The 1967 Christmas Count in Minnesota

Robert B. Janssen

When comparing the 1967 Christmas Counts with those of 1966, (*The Loon* 39: 141-143) it is noted at first glance that far fewer rarities showed up this year than during 1966. However, three new species were added to all time list, the Ferruginous Hawk on the St. Paul (North-east) Count, the Logehead Shrike on the Excelsior Count and the Turkey on the Fergus Falls Count. The Ferruginous Hawk was supported by written details by an observer not familiar with the species, so this highly unusual record is open to serious question. The shrike record is supported by good details but as the Editor of *Audubon Field Notes* states there is no mention of the face mask meeting over the bill. The Turkey record can be attributed to introduction of this species in the west central parts of the state and also in the Dakotas.

This years total of 92 species is the highest on record but this figure is somewhat inflated by the fact that 24 Counts were reported, which is also a record. The fact that the Fargo-Moorhead Count was used in its entirety also helped to increase the total species. Part of this count extends into North Dakota and separate figures were not kept by state this year. All Counts published in the *Audubon Field Notes* are included in this report. One additional Count, Wabasha, which was not published in the *Audubon Field Notes* is also included in this summary.

The more unusual species recorded on this Count were the Horned Grebe, Snow Goose, Gadwall and Myrtle Warbler. These four species have only been recorded once before in 23 years of Christmas Counts in Minnesota. The Black-backed Three-toed Woodpecker was recorded for the third time in 23 years and

the Brown Thrasher the fourth time in 23 years.

Excelsior again took honors for the most species on a single Count with 47. This is only three away from the magic figure of 50, the goal which will no doubt be a reality in the very near future.

Species that were reported in larger numbers than usual were the Rough-legged Hawk (39), Ruffed Grouse (83), Hairy Woodpecker (310), Downy Woodpecker (an amazing 524!), Black-capped Chickadee (2201), Cardinal (433), Common Grackle (317) and Evening Grosbeak (1483). The 100 American Goldfinches seen at Duluth is very unusual. Individual goldfinches seen in the north during the winter are the exception rather than the rule.

The Pine Grosbeak was exceptionally scarce all across northern Minnesota where it is usually seen in fair numbers each winter. It certainly was not a red-poll on Pine Siskin year as can be seen by the small number observed across the state.

Once again a Ruby-crowned Kinglet was recorded but this record like that of the Ferruginous Hawk is open to serious doubt. No details were submitted with the kinglet observation and to the best of my knowledge there are no substantiated records for this species in Minnesota during the winter. One final comment must be made and that concerns the absence of a Count from Rochester. It seems that the people in the area just forgot to take a Count this year! Thus the Canada Goose figure is very misleading when compared to other years. At least 6-7,000 Canada Geese were present in Rochester last winter. It is unfortunate that they were not included in this years totals. 1817 W. 59th Street, Minneapolis, Minnesota.

	AFTON	BLOOMINGTON	CEDAR CREEK	COLLEGEVILLE	COTTON WOOD	CROSBY	DULUTH	ELIZABETH	EXCELSIOR	FARGO-MOORHEAD	FERGUS FALLS	HIBBING	LITTLE FALLS	McGREGOR	MINNEAPOLIS	NORTHFIELD	RED WING	ST. PAUL NORTH	ST. PAUL NORTHEAST	SHERBURNE NAT. WILD-LIFE REFUGE	WABASHA	WALKER	WILLMAR	WINONA	TOTALS
Horned Grebe							1																		1
Canada Goose		1		8				19	35		97									7					167
Snow Goose				1																					3
Mallard	108	5700		22			1	4	152	1	380				43		314	74	1		24			10	6834
Black Duck	5	2													1		14	3			6			1	32
Gadwall									1																1
Wood Duck															1		1								2
Ring-necked Duck															1										1
Lesser Scaup											1														1
Common Goldeneye	13	56		75			49			2	38		18		167			158					2		578
Bufflehead							3																		3
Ruddy Duck											1														1
Common Merganser	26						2			1	1														30
Cooper's Hawk			2						1																3
Red-tailed Hawk	1	1					1		2							2	9	5	5					8	34
Red-shouldered Hawk																	1				1				2
Rough-legged Hawk		1	4	5		1	2		5	2	2		2		2				2	1	9		1		39
Ferruginous Hawk (?)																			1						1
Bald Eagle	2													8			4				6			1	21
Marsh Hawk				2										1						1	1				5
Sparrow Hawk	1	2							5		1				2		1	3	2						17
Ruffed Grouse	1		7	2		1	32					5	1	1			2		10	9		3	4	5	83
Sharp-tailed Grouse													1												1
Ring-necked Pheasant	3	49	1	1	13		10	12	52	30	70		5		5	7	1	164	31				35		489
Gray Partridge										33															33
American Coot								7			35														42
Killdeer									1										2					1	4
Common Snipe									5										1					3	9
Glaucous Gull							2																		2
Herring Gull		1					105										17								123
Mourning Dove			1						16								1	1			12				31
Screech Owl		1		1														1							3
Great-horned Owl					3				2	5	2				1	1	2	3		1	1		2	1	24
Snowy Owl							4																		4
Barred Owl				1							2						2							4	9
Short-eared Owl										1	3														4
Belted Kingfisher	1	2							2		1								1		1			1	9
Yellow-shafted Flicker	1						4			4				1										1	14
Pileated Woodpecker	1	5							8	3	1			1		4	3	2	6		1			1	34
Red-bellied Woodpecker	10	7	2	1					8								7	8	3	12		7		2	83
Red-headed Woodpecker										1															3
Hairy Woodpecker	26	22	7	14	6	1	9		36	31	12	9			11	10	17	16	40	1	3	18	11	10	310
Downy Woodpecker	24	42	18	19	7	1	63		68	45	24	7	3		9	12	29	28	46	2	10	11	26	30	524

March 1, to May 31, 1968 — It would be difficult to characterize the Spring Migration except to say that some species were inexplicably early, some late, and many were decidedly cleft into very early and very late arrival waves. The last week of March and first half of April were unseasonably warm (EGA reports that March was almost 10 degrees above normal at Fargo) and when the temperatures soared to 85 degrees near mid-April, several species of early spring butterflies eclosed almost a full month earlier than normal. During this exceptionally warm weather some astonishing early dates were obtained for early Spring migrants. Then extreme cold set in the last part of April, with several snow storms in various parts of the state, and the month ended with an average temperature that was below normal even in spite of the balmy weather earlier in the month. The precipitation for April was three times higher than normal at Fargo (EGA) and the cold temperatures continued throughout most of May. Many migrants were thus delayed and it was the rule rather than the exception to see Tennessee Warblers, White-throated Sparrows and other migrants lingering around the Minneapolis/St. Paul area until the last few days of May and first part of June. Except for the Fargo-Moorhead area, most observers reported a poor Spring for shorebirds and warblers. Other interesting phenological data were the appearance of the hardy Least Chipmunk in Cook County from 3-11 onward (MAF) and the Eastern Chipmunk and Thirteen-lined Spermophile emerged from hibernation in Houston County during the first week of April (FL).

Common Loon: earliest 3-31 Minneapolis, FN/MAS; 4-1 Stearns Co., KE; 4-4 Minneapolis, VL; 4-6 Minneapolis, DB and St. Paul, BL.

Red-necked Grebe; earliest 4-11 Minneapolis, GES; 4-14 Nicollet Co., EMB; 4-19 Marshall Co., AWR; 4-20 Pope

Co., MHM; in addition to these there were only five other reports; this species has been scarce for the past few years.

Horned Grebe: earliest 4-4 Minneapolis, DB, VL, FN/MAS; 4-9 Minneapolis, EHH; in north, 4-12 Crow Wing Co., MSB; 4-21 Lake Co., RK; 4-24 Duluth, JCG.

Eared Grebe: 4-29 Stevens Co., MSB; 5-3 Moorhead, *vide* EGA; "May", Marshall Co., AWR; only reports.

Western Grebe: 5-5 Fargo-Moorhead, *vide* EGA; 5-6 Grant Co., JAH; 5-21 Stevens Co., EHH; 5-26 Big Stone Co., EMB; "May", Marshall Co., AWR; only reports.

Pied-billed Grebe: earliest 3-16 Morrison Co., DF; 3-23 Dakota Co., VL, DB, EMB; 3-27 Wabasha Co., DGM and Aitkin Co., CEP; 3-28 Olmsted Co., HBW.

White Pelican: 4-14(1), 4-15(100+) Nobles Co., HSH; 4-15 Big Stone Co., BL; 4-27 Nicollet Co., 30+, DB; 4-29 Stevens Co., MSB; 4-30 Marshall Co., 125, AWR; 5-2 Carver Co., 8, RTH; 5-10 (30+), 5-28(17) Big Stone Co., JAH; 5-12 Fargo-Moorhead, *vide* EGA; 5-21 Lac Qui Parle Co., EHH; 5-26 Big Stone Co., EMB; 5-20 Nobles Co., HSH; 5-29 Marshall Co., KE.

Double-crested Cormorant: earliest 3-30 Lac Qui Parle Co., DB; 4-5 Big Stone Co., JAH; 4-6 Lac Qui Parle Co., KE; 4-7 Wright Co., EHD; it is encouraging that this species was reported from 10 counties by 14 observers.

Great Blue Heron: earliest 3-15 Rice Co., OAR; 3-18 Wright Co., EHD and Wabasha Co., DGM; 3-21 St. Paul, BL; 3-23 Stearns Co., KE.

Green Heron: earliest 4-6 (exceptional) Stearns Co., KE, good details; next date 4-26 Wright Co., EHD; 4-28 Washington Co., DS; 5-1 Washington Co., WWL; 5-2 Anoka Co., WHL and Ramsey Co., RLH; several northerly records: 5-8 Fargo-Moorhead, *vide* EGA; 5-9 Tofte,

Cook Co., 1, good details, MOP; 5-15 Stevens Co., JAH; 5-15 Marshall Co., AWR.

Common Egret: earliest 4-4 Wabasha Co., DGM; 4-13 Stearns Co., KE; 4-16 Hennepin Co., FN/MAS; 4-18 St. Paul, BL.

Black-crowned Night Heron: earliest 4-18 Minneapolis, VL; 4-19 Minneapolis, FN/MAS; 4-27 Nicollet Co., DB; 4-28 Carver Co., EMB and Nobles Co., HSH.

Yellow-crowned Night Heron: 5-12 (1, DB), 5-15 (1, FL) LaCrescent, Houston Co.

Least Bittern: 4-22 Nobles Co., 1, HSH; only report.

American Bittern: earliest 4-5 Big Stone Co., JAH; 4-21 Nobles Co., HSH; 4-23 Wright Co., EHD; 4-28 Carver Co., EMB.

Whistling Swan: earliest 3-24 Wabasha Co., GES, BT; 3-31 Hennepin Co., FN/MAS; 4-1 Wabasha Co., DGM and Aitkin Co., CEP; 4-3 Hennepin Co., VL, Pope Co., WH, Anoka Co., WHL; latest 4-21 Aitkin Co., MSB; 5-5 Aitkin Co., CEP; 5-10 Marshall Co., AWR; 5-29 (exceptional) Clearwater Co., 1, KE (late date suggests possible Trumpeter Swan?).

Canada Goose: early 3-7 Washington Co., WWL; 3-9 Dakota Co., DB and Nobles Co., HSH; 3-12 Wabasha Co., DGM; 3-14 Wright Co., EHD, Washington Co., DH and Pope Co., WH.

White-fronted Goose: 3-15 Wabasha Co., DGM; 3-16 Wright Co., EHD; 3-25 Wabasha Co., DGM; 3-26 Marshall Co., AWR; 3-30 Lac Qui Parle Co., DB, EHH; 4-6 Traverse Co., KE; 4-10 Lyon Co., 110, BL; 5-3 Marshall Co., AWR; 5-12, 5-28 Duluth, JPP; more reports than we've had in the past eight years or more.

Snow/Blue Goose: early 3-10 Fargo-Moorhead, *fide* EGA; 3-15 Wabasha Co., DGM; 3-16 Wright Co., EHD and Nobles Co., HSH; 3-19 Aitkin Co., CEP; late 5-10 Marshall Co., AWR and Lac Qui Parle Co., JAH; 5-19 Morrison Co., LSR; 5-28 Big Stone Co., JAH.

Black Duck: early 3-9 Dakota Co., DB; 3-10 Winona Co., BT; 3-16 Big Stone Co., JAH; 3-18 Wabasha Co., DGM.

Gadwall: early 3-10 Nobles Co., HSH; 3-16 Goodhue Co., RBJ; 3-17 Rice Co., OAR and Fargo-Moorhead, *fide* EGA; 3-19 Hennepin Co., GES, VL.

Pintail: early 3-2 Scott Co., MHM; 3-4 Nobles Co., HSH; 3-9 Rice Co., OAR; 3-13 Dakota Co., VL.

Green-winged Teal: early 3-9 Houston Co., FN/MAS; 3-17 Rice Co., OAR, Wabasha Co., DGM, Big Stone Co., JAH; 3-18 Blue Earth Co., EDK.

Blue-winged Teal: early 3-17 Fargo-Moorhead, *fide* EGA; 3-20 Rice Co., OAR and Wabasha Co., DGM; 3-23 Dakota Co., BL; 3-24 Dakota Co., EMB, Nobles Co., HSH and Wabasha Co., GES.

American Widgeon: early 3-10 Winona Co., BT and Nobles Co., HSH; 3-16 Dakota Co., EBJ; 3-17 Lac Qui Parle Co., JAH, Rice Co., OAR, Scott Co., EMB and Hennepin Co., VL.

EUROPEAN WIDGEON: 4-17 (1) Reno, Houston Co., BT.

Shoveler: early 3-17 Big Stone Co., JAH and Fargo-Moorhead, *fide* EGA; 3-18 Rice Co., OAR, Blue Earth Co., EDK; 3-19 Minneapolis, FN/MAS.

Wood Duck: early 3-10 Winona Co., BT and Wright Co., EHD; 3-14 Nobles Co., HSH; 3-16 Dakota Co., RBJ and Morrison Co., DF; 3-17 Wabasha Co., DGM and Washington Co., DH.

Redhead: early 3-13 Nobles Co., HSH; 3-16 Watonwan Co., EDK; 3-17 Dakota Co., DB, Big Stone Co., JAH, Rice Co., OAR; 3-19 Hennepin Co., FN/MAS.

Ring-necked Duck: early 3-11 Nobles Co., HSH; 3-15 Wright Co., RTH; 3-16 Watonwan Co., EDK, Dakota Co., DB, RBJ, Big Stone Co., JAH, Wabasha Co., DGM; 3-17 Rice Co., OAR.

Canvasback: early 3-16 Watonwan Co., EDK; 3-17 Lac Qui Parle Co., JAH, Rice Co., OAR; 3-20 Winona Co., BT; 3-21 Dakota Co., VL.

Greater Scaup: 3-17 Wright Co., EHD; 3-25 Olmsted Co., HBW; 4-6 Mille Lacs Co., MIV; 4-28 Washington Co., DS; 5-6 Grant Co., JAH; 5-12 Duluth, KE; only reports.

Lesser Scaup: early 3-7 Nobles Co., HSH; 3-14 Rice Co., OAR; 3-16 Watonwan Co., EDK and Dakota Co., RBJ;

3-17 Dakota Co., EMB, Wright Co., EHD, Morrison Co., DF and Wabasha Co., DGM.

Common Goldeneye: late in south, 4-2 Minneapolis, VL and Wabasha Co., DGM; 4-6 Stevens Co., JAH; 4-13 Ramsey Co., RJC; 4-15 Washington Co., WWL and Dakota Co., RJC.

Bufflehead: late 4-28 Washington Co., DS; 5-3 Carver Co., RTH; 5-8 Mille Lacs Co., MIV; 5-10 Marshall Co., AWR.

Oldsquaw: late 5-10 Duluth, JCG; 5-20 Duluth, JGH; 5-23 Cook Co., 32, JCG; 5-28 Lake Co., 6, EHH.

White-winged Scoter: 4-25 Shotley, Beltrami Co., MG; 4-30 Duluth, PBH; 5-28 Duluth, EHH.

Surf Scoter: 5-7 Duluth, 1, PBH; 5-26 Duluth, 1, AB, RLH; 5-31 Two Harbors, Lake Co., 1 male, JCG.

Ruddy Duck: early 3-17 Dakota Co., EMB; 3-22 Nobles Co., HSH; 4-1 Minneapolis, VL; 4-4 Houston Co., FL.

Hooded Merganser: early 3-16 Dakota Co., RBJ; 3-17 Lac Qui Parle Co., JAH; 3-18 Rice Co., OAR and Wabasha Co., DGM; 3-19 Hennepin Co., VL, Wabasha Co., FN/MAS and Aitkin Co., CEP.

Common Merganser: late in south, 4-14 Hennepin Co., MHM; 4-17 Minneapolis, RJC; 4-21 Becker Co., *fide* EGA; 4-26 Pope Co., WH.

Red-breasted Merganser: late in south, 4-16 Carver Co., RTH, Wright Co., EHD; 4-21 Becker Co., *fide* EGA; 4-23 Minneapolis, VL; 4-28 Minneapolis, JAJ.

Turkey Vulture: early 4-11 Duluth, 8, David Dewitt *fide* JCG; 4-19 Anoka Co., WHL; 4-20 Carver Co., RTH; 4-22 Stearns Co., KE.

Goshawk: 3-2 Ponemah, Beltrami Co., 1 ad, JAH; "April", Marshall Co., 1, AWR.

Sharp-shinned Hawk: early 3-19 Winona Co., FN/MAS; 3-31 Nobles Co., HSH; 4-2 Duluth, JCG.

Cooper's Hawk: early 3-18 Fargo-Moorhead, *fide* EGA; 3-19 Wabasha Co., FN/MAS; 3-22 Wabasha Co., DGM; 3-23 Beltrami Co., JAM.

Red-tailed Hawk: early in north, 3-24 Marshall Co., AWR; 3-28 Morrison Co., LSR; 3-29 Becker Co., LJK.

Harlan's Hawk: 3-31 Marshall, Lyon Co., RG, DB, AB, EHH, good details; 4-5 Rosen, Lac Qui Parle Co., good details, JAH.

Red-shouldered Hawk: reported from Washington, Stearns, Dakota, Chisago, Winona, Hennepin, Carver Co.'s plus several westerly and northerly records: 3-30 Morrison Co., DF; 3-20 Crookston, Polk Co., *fide* EGA (very northerly); 3-31 Marshall Co., AWR (very northerly); 4-11 Fargo-Moorhead, *fide* EGA; 4-23 Stevens Co., JAH; 5-18 Nobles Co., 3, HSH; a total of 12 records in all, more than we've had for a long time.

Broad-winged Hawk: early 4-2 Onamia, Mille Lacs Co., MIV; none again until 4-20 Stearns Co., KE; 4-24 Carver Co., MHM and Hennepin Co., DB; 4-29 Anoka Co., WHL and Duluth, JGH.

Swainson's Hawk: 4-9 Onamia, Mille Lacs Co., 1 dark phase, MIV; 4-11 Odessa, Big Stone Co., 2, BL; 4-25, 5-3, 5-8 Fargo-Moorhead, *fide* EGA; 5-10 Vasa, Goodhue Co., DB, KP.

Rough-legged Hawk: latest 4-21 Beltrami Co., 8, JAH; 4-23 Fargo-Moorhead, *fide* EGA; 4-25 Wright Co., EHD; two exceptional records, 5-29 Pine Bend, Dakota Co., 1, RJC; 5-30 Doran, Wilkin Co., 1, AB, RLH.

Golden Eagle: 3-4 Marshall Co., AWR; 3-17 Scott Co., EMB; 3-19 Winona Co., FN/MAS; 3-24 Wabasha Co., GES, BT; 3-26 Hennepin Co., FN/MAS and Washington Co., DH.

Bald Eagle: 3-6 (3), 3-15 (10), 4-13 (1) Wabasha Co., DGM; 3-9 Houston Co., 3, FL and Aitkin Co., CEP; 3-14 (1), 3-20 (6), 3-24 (8) Winona Co., BT; 3-17 Marshall Co., 1, AWR and Duluth, 1 imm, JCG; 3-19 Wabasha Co., 12, FN/MAS; 3-23 Duluth, 1 ad, JCG; 3-29 Marshall Co., 1, AWR; 3-30 Lac Qui Parle Co., 2, DB, EHH; 3-31 Crow Wing Co., 1, MSB; 4-5 Marshall Co., 1, AWR; 4-6 Traverse Co., 1 imm, KE; 4-7 Wright Co., 2, EHD; 4-10 Cook Co., 2, RLG.

Marsh Hawk: early 3-1 Wabasha Co., DGM; 3-8 Marshall Co., AWR and

Aitkin Co., CEP; 3-9 Nobles Co., HSH and Stevens Co., JAH; 3-10 Carver Co., RTH, Cottonwood Co., LAF and Fargo-Moorhead, *vide* EGA.

Osprey: 4-7 Olmsted Co., AFR; 4-18 Aitkin Co., CEP; 4-21 Chisago Co., FVS; 4-24 Martin Co., EDK; 4-28 Wright Co., EHD; 4-29 Carlton Co., JGH; 5-4 Houston Co., DB, EHH; Chisago Co., EMB and Crow Wing Co., TEM; 5-11 Crow Wing Co., MSB; 5-12 Beltrami Co., JAM; 5-20 Clearwater Co., WHL; 5-28 St. Louis Co., DGM; 5-30 Todd Co., KE; only a single bird in each case.

Peregrine Falcon: 3-17 Ft. Snelling, Hennepin Co., 1 photographed, EMB; 3-27 Stearns Co., KE; 4-9 Traverse Co., 1 imm, JAH; 5-18 St. Paul, 1, BL.

Pigeon Hawk: 3-21 Nobles Co., HSH; 4-9 Traverse Co., JAH; 4-10 Pope Co., JAH; 4-20 Beltrami Co., JAH and Stearns Co., KE; only reports.

Sparrow Hawk: early in north, 3-16 Marshall Co., AWR; 3-23 Itasca Co., JAM; 3-25 Beltrami Co., MG and Aitkin Co., CEP.

Spruce Grouse: 3-3 Faunce, Lake-of-the-Woods Co., 1, JAH; 3-8 Beltrami Co., 4, MG; 4-21 Norris Camp, Lake-of-the-Woods Co., 1, JAH.

Ruffed Grouse: reported by 14 observers from Washington, Cook, Anoka, Stearns, Becker, Marshall, St. Louis, Morrison, Beltrami, Lake-of-the-Woods Co.'s and Fargo-Moorhead.

Greater Prairie Chicken: 3-30 Rothsay, Wilkin Co., 25, DB, EHH; 4-18, 4-21 Clay Co., *vide* EGA; 5-29 Clay Co., 1, KE; 5-30 4 mi W. Waubun, Mahnomon Co., 1, AB, RLH.

Sharp-tailed Grouse: 3-3 Lake-of-the-Woods Co., 1, 3-4 Marshall Co., 1 and 4-20 Koochiching Co., 8, Lake-of-the-Woods Co., 19, JAH; 5-18 Carlton Co., 1, JGH.

Bobwhite: 5-21 Nobles Co., 1 calling, HSH; "resident", Rice Co., OAR.

Ring-necked Pheasant: reported by 26 observers from Pope, Hennepin, Carver, Washington, Cottonwood, Chisago, Watonwan, Wright, Ramsey, Anoka, Morrison, Sherburne, Stearns, Stevens, Big Stone, Traverse, Lac Qui Parle, Nobles,

Rice, Wabasha, Winona, Olmsted Co.'s.

Gray Partridge: more reports than usual, 3-3 Rice Co., 2, OAR; 3-31 Nobles Co., 2, HSH; 4-6 Traverse Co., 8, KE; 4-10 Lincoln Co., 2, BL; 4-13 Rice Co., 2, DB; 5-4 Stevens Co., 2, JAH; 5-10 Clay Co., 2, TEM; 5-15 Faribault Co., 2, EDK; 5-21 Nobles Co., 2, HSH; 5-25 Swift Co., 1, EHH.

Sandhill Crane: 3-30 Lac Qui Parle Co., DB, EHH; 3-31 Lyon Co., 15, DB, EHH, and Anoka Co., WHL; 4-1 Aitkin Co., 2, CEP; 4-6, 4-14 Becker Co., *vide* EGA; 4-22 Marshall Co., 12, AWR; 4-25 Fargo-Moorhead, *vide* EGA.

King Rail: 5-25 Marshall Co., 1, AWR (undoubtedly northernmost state record).

Virginia Rail: early 5-10 Fargo-Moorhead, *vide* EGA; 5-11 Sherburne Co., KE.; 5-18 St. Paul, BL; 5-19 Ramsey Co., RJC.

Sora: early 4-27 Anoka Co., WHL; 4-29 Carver Co., RTH; 4-30 St. Paul, BL.

Common Gallinule: 5-15 LaCrescent, Houston Co., 2, FL; 5-19 Frontenac, Goodhue Co., 3, EMB; only reports.

American Coot: early in north, 3-23 Morrison Co., LSR; 4-5 Stevens Co., JAH; 4-9 Aitkin Co., CEP; 4-10 Crow Wing Co., MSB.

Semipalmated Plover: early 4-21 Nobles Co., 15, HSH; 5-3 Stearns Co., 20, KE; 5-6 Minneapolis, FN/MAS; late 5-18 Carver Co., RTH; 5-24 Morrison Co., LSR; 5-25 Carver Co., RTH and Stevens Co., DB.

Piping Plover: 5-10 Moorhead, Clay Co., 1, TEM; 5-12 Frontenac, Goodhue Co., EMB and Duluth, 2, KE, JPP; 5-25 (10) Duluth, CLH; 6-3 (2), 6-4 (1) Duluth, KE.

Killdeer: early 3-9 Olmsted Co., AFR; 3-10 Pope Co., WH; 3-15 Stearns Co., KE, Wabasha Co., DGM, Blue Earth Co., EDK.

American Golden Plover: early 4-20 Fargo-Moorhead, *vide* EGA; 4-21 Nobles Co., HSH; 4-27 Nicollet Co., KP, DB; 4-29 Wilkin Co., MSB; late 5-20 Nobles Co., 100, HSH; 5-21 Lac Qui Parle Co., EHH; 5-23 Fargo-Moorhead, *vide* EGA.

Black-bellied Plover: early 4-19 Nobles Co., HSH; 5-9 Duluth, PBH; 5-12

Duluth, JPP; 5-14 Goodhue Co., EHH; late 5-25 Carver Co., RTH and Cottonwood Co., LAF; 5-26 Grant Co., EMB; 5-27 Fargo-Moorhead, *fide* EGA; 6-4 Duluth, 10, KE.

Ruddy Turnstone: early 5-4 Swift Co., HSH; 5-12 Duluth, JPP, KE; 5-18 Carver Co., RTH, RBJ and Hennepin Co., GES; 5-19 Beltrami Co., JAM; late 5-26 Grant Co., EMB; 5-27 Stearns Co., KE; 6-4 Duluth, KE.

American Woodcock: early 3-30 Morrison Co., DF; 3-31 Aitkin Co., CEP; 4-2 Cook Co., RLG.

Common Snipe: early in north, 3-26 Duluth, RN; 4-7 Chisago Co., FVS; 4-9 Marshall Co., AWR.

Whimbrel: 5-25 Duluth, CLH.

LONG-BILLED CURLEW: 4-11, 4-12 Wayzata, Hennepin Co., 1 individual seen and photographed by many observers.

Upland Plover: early 4-25 Fargo-Moorhead, *fide* EGA; 4-27 Nicollet Co., DB; 5-2 Watonwan Co., EDK; one northerly record 5-17 Duluth, 1, JNG.

Spotted Sandpiper: early 4-24 Stearns Co., KE; 4-28 St. Paul, BL; 5-4 Houston Co., EHH, Winona Co., DB, and Carver Co., RTH.

Solitary Sandpiper: early 4-7 Hennepin Co., FN/MAS; 4-8 Rice Co., OAR; 4-26 Stearns Co., KE; 4-27 Nicollet Co., KP, DB; late 5-19 Beltrami Co., JAM; 5-21 Watonwan Co., FN/MAS; 5-24 Fargo-Moorhead, *fide* EGA.

Willet: 4-13 Dayton Twp., Hennepin Co., 1, Evelyn Cruzen; 4-28 Windom, Cottonwood Co., 3, LAF; 4-29 Wilkin Co., 4, MSB; 5-4 Minneapolis, 1, SW; 5-6 Marshall Co., 1, AWR; 5-7 and 5-9 Duluth, 1, PBH; 5-12 Fargo-Moorhead, *fide* EGA; 5-14 Frontenac, Goodhue Co., 1, EHH; 5-20 Marshall Co., 2, AWR; 5-25 Salt Lake, Lac Qui Parle Co., 1, DB; and Morrison Co., 1, LSR; more reports than I can recall in past years.

Greater Yellowlegs: early 3-30 Wabasha Co., DGM; 3-31 Cottonwood Co., EHH, DB and Scott Co., GES; 4-6 Anoka Co., BL; late 4-29 Fargo-Moorhead, *fide* EGA; 5-10 Big Stone Co., JAH; 5-19 Wabasha Co., DGM.

Lesser Yellowlegs: early 3-24 Hennepin Co., RLH; 3-30 Nobles Co., HSH; 4-1 Pope Co., JAH; 4-11 Kandiyohi Co., BL; late 5-22 Washington Co., DS; 5-24 Fargo-Moorhead, *fide* EGA; 5-29 Carver Co., RTH.

Yellowlegs, species ?: 3-17 Blackdog, Dakota Co., 1, DB.

Pectoral Sandpiper: early 3-31 Watonwan Co., DB, EHH; 4-5 Washington Co., BL; 4-12 Traverse Co., JAH; late 5-25 Stearns Co., KE; Morrison Co., LSR and Carver Co., RTH; 5-28 Big Stone Co., JAH; 6-2 Moorhead, *fide* EGA.

White-rumped Sandpiper: early 4-14 Nicollet Co., EMB; next record 5-10 Stevens Co., JAH; 5-11 Washington Co., BL; 5-14 Goodhue Co., EHH and Minneapolis, FN/MAS; late 5-28 Big Stone Co., JAH; 5-29 Marshall Co., KE; 6-4 Duluth, 4, KE.

Baird's Sandpiper: early 3-20 Wabasha Co., DGM, good details; 4-11 Lac Qui Parle Co., 3, BL; 4-20 Wabasha Co., DGM; 4-25 Fargo-Moorhead, *fide* EGA; late 5-24 Moorhead, *fide* EGA; 5-27 Lac Qui Parle Co., KE; 5-30 Stevens Co., JAH.

Least Sandpiper: early 4-14 Nobles Co., HSH; next 4-29 Wilkin Co., MSB; 5-2 Hennepin Co., GES; 5-3 Stearns Co. KE; late 5-25 Stevens Co., DB, Morrison Co., LSR; 5-27 Lac Qui Parle Co., KE; 6-3 Cook Co., 4, RLG.

Dunlin: early 4-25 Fargo-Moorhead, *fide* EGA; 5-11 Carver Co., RTH; 5-12 Wabasha Co., DGM and Duluth, JPP; 5-15 Marshall Co., AWR; late 5-29 Carver Co., RTH; 5-30 Stevens Co., JAH; 6-4 Duluth, KE.

Long-billed Dowitcher: 5-18 Washington Co., 10, BL and Hennepin Co., GES; 5-28 Big Stone Co., 1, JAH; only reports with call-note data.

Short-billed Dowitcher: 5-3 Stearns Co., 4, KE; 5-14 Dakota Co, 14, EHH; 5-18 Carver Co., RTH, RBJ; only reports with call-note data.

Dowitcher, species ?: 4-11 Kandiyohi Co., BL; 4-25 Moorhead, *fide* EGA; 5-8 Carver Co., RTH, RDT; 5-9 Ottertail Co., FN/MAS and Wabasha Co., DGM; 5-10 to 5-24 Moorhead, *fide* EGA; 5-14

Hennepin Co., 22, EWJ, FN/MAS; 5-19 Jackson Co., HSH; 5-20 Marshall Co., AWR; 5-21 Watonwan Co., FN/MAS; 5-25 Morrison Co., LSR.

Stilt Sandpiper: 5-8 Carver Co., RTH; 5-18 Carver Co., RBJ; 5-25 Morrison Co., LSR; 5-28 Big Stone Co., JAH; only reports.

Semipalmated Sandpiper: early 4-20 Nobles Co., HSH; 4-28 Carver Co., EMB; 5-7 Wabasha Co., DGM; late 5-28 Big Stone Co., JAH; 5-29 Marshall Co., 100, KE; and Carver Co., RTH; 6-4 Duluth, 20, KE.

Buff-breasted Sandpiper: 5-12 Barnesville, Clay Co., *fide* EGA; good details; few spring records for this species.

Marbled Godwit: early 4-10 Lac Qui Parle Co., BL; 4-11 Fargo-Moorhead, *fide* EGA; 4-15 Big Stone Co., JAH and Stearns Co., KE.

Hudsonian Godwit: 4-10 Lac Qui Parle Co., BL; 4-25 Fargo-Moorhead, *fide* EGA; 5-4 Swift Co., HSH; 5-15 Carver Co., RTH; 5-18 Washington Co., EMB; 5-20 Carver Co., RDT; 5-25 Carver Co., RTH; only reports.

Sanderling: early 5-12 Duluth, KE, JPP; 5-18 Carver Co., RBJ, RTH; 5-19 Minneapolis, EMB; late 5-25 Lac Qui Parle Co., DB; 5-27 Lac Qui Parle Co., KE; 6-4 Duluth, KE.

American Avocet: 4-19 Moorhead, *fide* EGA; 5-2 Duluth, 1, *fide* JCG; 5-10 Marshall Co., 19, AWR; 5-26 Big Stone Co., EMB; only reports.

Wilson's Phalarope: early 4-27 Nicollet Co., DB, KP; 4-28 Carver Co., EMB and Nobles Co., HSH; 4-30 Big Stone Co., JAH.

Northern Phalarope: 5-19 Jackson Co., HSH; 5-23 Carver Co., RDT; 5-25 Stearns Co., KE. Morrison Co., LSR, Yellow Medicine Co., DB, EHH, Carver Co., RTH; 5-29 Carver Co., RTH; 5-30 Carver Co., GES; 6-2 Carver Co., RBJ.

ICELAND GULL: 4-24 Duluth, 1 imm, JCG; only report.

Glaucous Gull: 3-22 Two Harbors, Lake Co., 1 ad, 1 imm, JCG; 4-21 Stoney Pt., St. Louis Co., 1 2nd yr., RK; 4-24 Duluth, 1 imm, JCG; only reports.

Ring-billed Gull: early 3-8 Rice Co., OAR; 3-16 Dakota Co., RBJ; 3-17 Dakota Co., EMB, GES.

Franklin's Gull: early 3-22 Nobles Co., HSH; 3-31 Swift Co., JAH; 4-6 Kandiyohi Co., KE.

Bonaparte's Gull: early 4-7 Minneapolis, FN/MAS; 4-12 Traverse Co., JAH; 4-20 Hennepin Co., 50+, FN/MAS; late 5-21 Stevens Co., EHH; 5-25 Mille Lacs Co., 125, FN/MAS.

BLACK-LEGGED KITTIWAKE: 4-14 LaCrosse, Wisconsin, adjacent to Houston Co., Minnesota, 1 imm collected, FL; compares nicely with Iowa & South Dakota records also.

Forster's Tern: early 4-13 Minneapolis, TKS; 4-15 Lyon Co., BL; 4-16 Bloomington, Hennepin Co., FN/MAS, VL.

Common Tern: early 4-14 Hennepin Co., VL, and Murray Co., HSH; 4-16 Ramsey Co., RJC and Nobles Co., HSH; 4-18 Wright Co., EHD.

Caspian Tern: early 5-9 Duluth, PBH; 5-12 Duluth, KE; 5-14 Goodhue Co., EHH; late 5-24 Morrison Co., LSR; 5-25 Carver Co., RTH.

Black Tern: early 4-26 Anoka Co., RLH; 4-27 Anoka Co., WHL; 5-4 Hennepin Co., EWJ; 5-5 Wright Co., EHD.

Mourning Dove: early 3-8 Wabasha Co., DGM; 3-9 Wright Co., EHD, Nobles Co., HSH, Goodhue Co., DB and Olmsted Co., AFR; 3-10 Hennepin Co., CLH, KP, Carver Co., MHM and St. Paul WWL.

Yellow-billed Cuckoo: early 5-11 Rice Co., OAR; 5-16 Minneapolis, FN/MAS, EHH; 5-17 Minneapolis, DB.

Black-billed Cuckoo: early 5-11 Houston Co., KP, DB and Hennepin Co., CLH; 5-12 Houston Co., FL; 5-15 Carver Co., RTH and Minneapolis, FN/MAS.

Screech Owl: reported from Washington, Rice, Nobles, Hennepin, Sherburne Co.'s.

Great Horned Owl: reported from Hennepin, Cottonwood, Nobles, Rice, Washington, Goodhue, Carver, Anoka, Wright, Beltrami, Big Stone, Stevens, Traverse, Stearns, Wabasha, Crow Wing, Mille Lacs, Morrison, Olmsted Co.'s. and Fargo-Moorhead.

Snowy Owl: late 3-1 Aitkin Co., CEP; 3-7 Duluth, JKB; 3-29 Fargo-Moorhead, *fide* EGA; 3-31 Yellow Medicine Co., DB, EHH.

Burrowing Owl: 4-5 Rock Co., 1, RO, may be earliest date on record? 5-28 La-Crosse, Wisconsin, adjacent to Houston Co., Minnesota 1 at airport, FL.

Barred Owl: reported from Hennepin, Rice, Washington, Anoka, Stearns, Lake, Crow Wing, Chisago and Wabasha Co.'s.

Long-eared Owl: 5-5 Onamia, Mille Lacs Co., 1, MIV; only report.

Short-eared Owl: 3-2 Aitkin Co., CEP; 3-16 Marshall Co., AWR; 4-10 Nobles Co., HSH and Lac Qui Parle Co., JAH.

Saw-whet Owl: 3-2 Aitkin Co., CEP; 3-27 Blue Earth Co., 6 mi. W. Amboy, 1, EDK; 3-29 Lake Jane, Washington Co., 1, JO.

Whip-poor-will: early 5-1 Anoka Co., WHL; 5-9 Fargo-Moorhead, *fide* EGA; 5-10 Houston Co., FL and Sherburne Co., KE; 5-11 Houston Co., VL; 5-12 Beltrami Co., MG.

Common Nighthawk: early 5-9 Anoka Co., WHL, Carver Co., MHM, RTH and Wabasha Co., DGM; 5-10 Sherburne Co., KE, Washington Co., WWL, DS, Rice Co., OAR; 5-11 Houston Co., DB, KP, HSH.

Chimney Swift: early 4-11 Stearns Co., KE (exceptional); none again until 4-24 Minneapolis, DB; 4-29 Rice Co., OAR, and Minneapolis, VL; 4-30 Goodhue Co., BL, Big Stone Co., JAH, Minneapolis, RBJ, FN/MAS; and Nobles Co., HSH.

Ruby-throated Hummingbird: early 5-9 Anoka Co., WHL; 5-10 Houston Co., FL, Cottonwood Co., LAF, and Crow Wing Co., MSB; 5-12 Aitkin Co., CEP and Lake Co., RK.

RED-SHAFTER FLICKER: 4-28 Fargo-Moorhead, 1, *fide* EGA.

Yellow-shafted Flicker: early 3-9 Nobles Co., HSH; 3-5 Lake Co., RK; 3-8 Rice Co., OAR; 3-16 Wabasha Co., DGM; 3-17 Fargo-Moorhead, *fide* EGA.

Pileated Woodpecker: reported from Anoka, Hennepin, Goodhue, Rice, Marshall, Washington, Winona, Stearns, Morrison, Cook, Aitkin, Chisago, St. Louis,

Wabasha and Carver Co.'s and Fargo-Moorhead.

Red-bellied Woodpecker: reported from Anoka, Winona, Goodhue, Rice, Stearns, Washington, Wabasha and Carver Co.'s.

Red-headed Woodpecker: early 3-29 Mille Lacs Co., MIV; 4-7 Chisago Co., FVS; 4-17 Fargo-Moorhead, *fide* EGA; 4-26 Wright Co., EHD; northerly records, 5-22 and 5-31 Tofte, Cook Co., MOP.

Yellow-bellied Sapsucker: early 3-25 Stevens Co., JAH; 3-27 Lac Qui Parle Co., JAH; 3-31 Minneapolis, EMB; 4-8 Minneapolis, GES.

Black-backed Three-toed Woodpecker: 3-12 Duluth, *fide* JCG; only report.

Eastern Kingbird: early 5-2 Hennepin Co., GES; 5-8 Wabasha Co., DGM; 5-9 Houston Co., HSH; 5-10 Carver Co., RTH and Sherburne Co., KE.

Western Kingbird: early 4-26 Stearns Co., 1, KE (exceptional); 5-15 Fargo-Moorhead, *fide* EGA; 5-16 Ramsey Co., FVS; 5-25 Big Stone Co., DB, EHH.

Great Crested Flycatcher: early 5-5 Jackson Co., HSH; 5-10 Houston Co., FL, Sherburne Co., KE; 5-11 Washington Co., DS; 5-12 Houston Co., DB, Washington Co., WWL.

Eastern Phoebe: early 3-30 Fillmore Co., AFR and Goodhue Co., BL; 3-31 Hennepin Co., EMB, Becker Co., LJK and Fargo-Moorhead, *fide* EGA; 4-1 Rice Co., OAR and Minneapolis, FN/MAS; 4-2 Hennepin Co., GES.

Yellow-bellied Flycatcher: early 5-10 Washington Co., WWL; 5-15 Anoka Co., WHL; 5-16 Minneapolis, EMB, DB; 5-18 Nobles Co., HSH.

Trail's Flycatcher: early 5-5 Hennepin Co., JAJ; 5-12 Carver Co., RTH; 5-16 Minneapolis, FN/MAS; 5-19 Goodhue Co., EMB.

Least Flycatcher: 4-26 Wright Co., EHD; 5-2 Washington Co., WWL; 5-5 Minneapolis, VL, DB.

Eastern Wood Pewee: early 4-25 Clay Co., singing, *fide* EGA; 4-27 Faribault, Rice Co., OAR (both exceptional); 5-9 Anoka Co., WHL; 5-10 Houston Co., HSH.

Olive-sided Flycatcher: early 5-6 (EHH), 5-7 (DB), 5-8 (KP) Hennepin Co.; 5-11 Goodhue Co., BL, AFR; late in south, 5-28 Anoka Co., WHL; 5-30 Ramsey Co., TKS; 5-31 Nobles Co., HSH; 6-1 Ramsey Co., TKS and Hennepin Co., VL.

Tree Swallow: early 3-30 Goodhue Co., AFR; 3-31 Ramsey Co., RJC; 4-2 Rice Co., OAR; 4-4 Houston Co., FL.

Bank Swallow: early 4-20 Wabasha Co., DGM; 4-24 Stearns Co., KE, Carver Co., MHM; 4-30 Big Stone Co., JAH, Goodhue Co., DS, BL and Ramsey Co., RJC.

Rough-winged Swallow: early 4-20 Dakota Co., DB; 4-21 Houston Co., FL; 4-25 Stearns Co., KE; 4-28 Carver Co., EMB.

Barn Swallow: early 4-19 Anoka Co., WHL; 4-20 Stearns Co., KE, Wabasha Co., DGM; 4-21 Houston Co., FL; 4-25 Washington Co., DS.

Cliff Swallow: early 4-28 Marshall Co., AWR and Hennepin Co., GES; 4-30 Big Stone Co., JAH, Carver Co., RTH; 5-2 Cook Co., MOP; 5-4 Stearns Co., KE.

Purple Martin: early 3-24 Hennepin Co., RLH; 3-25 Ramsey Co., WWL (both exceptional); 4-7 Olmsted Co., AFR; 4-9 Rice Co., OAR, Wabasha Co., DGM and Anoka Co., WHL; 4-13 Cottonwood Co., LAF, Wright Co., EHD.

Gray Jay: reported from Clearwater, Beltrami, Lake-of-the-Woods, St. Louis & Cass Co's.

Black-billed Magpie: 3-3 Roseau Co., 1, Beltrami Co., 15, JAH; 3-4 Marshall Co., 1, Clearwater Co., 10, JAH; 3-13 Aitkin Co., 2, CEP.

Common Raven: reported from Beltrami, Koochiching, Lake-of-the-Woods, Cook, Lake, St. Louis, Aitkin and Mille Lacs Co's.

Boreal Chickadee: 4-21 Norris Camp, Lake-of-the-Woods Co., 4, JAH, only report.

Tufted Titmouse: 13 reports from Washington, Winona, Rice, Hennepin, Olmsted, Ramsey, Wabasha, Houston Co's. are encouraging, plus 3 northerly records: 3-1 Duluth Heights, *vide* JCG; 3-3 Congdon Park, Duluth, *vide* JCG; 3-31 Clifton (Duluth), JCG.

Red-breasted Nuthatch: 3-2 Koochiching Co., JAH; 3-25 St. Louis Co., MJH; 5-30 Clearwater Co., KE; "present all winter and spring", Duluth, JCG.

Brown Creeper: early 3-4 Wright Co., EHD; 3-9 Cottonwood Co., LAF; 3-10 Carver Co., MHM; 3-11 Chisago Co., FVS.

House Wren: early 3-30 Aitkin Co., CEP (exceptional); 4-21 Wabasha Co., DGM; 4-24 Nobles Co., HSH; 4-30 Goodhue Co., BL.

Winter Wren: early 3-30 Fillmore Co., AFR; 4-7 Cook Co., RLG; 4-16 Minneapolis, VL; 4-28 Washington Co., JO; late in south 5-14 Goodhue Co., FN/MAS; 5-20 Minneapolis, EMB.

Long-billed Marsh Wren: early 5-11 Goodhue Co., BL; 5-14 Rice Co., OAR; 5-16 Fargo-Moorhead, *vide* EGA; 5-18 Carver Co., RTH.

Short-billed Marsh Wren: early 5-5 Aitkin Co., CEP; 5-10 Washington Co., BL; Carver Co., MHM; 5-12 Winona Co., DB; 5-14 Rice Co., OAR.

Mockingbird: 3-30 Mille Lacs Co., 1, KE (exceptional); 5-7 Pope Co., WH; 5-17 Minnetonka, Hennepin Co., Mrs. Rudolph Dvergsten.

Catbird: early 5-4 Wabasha Co., DGM; 5-7 Hennepin Co., VL, Wright Co., EHD; 5-9 Washington Co., DS, WWL, Hubbard Co., RBP.

Brown Thrasher: early 4-3 Rice Co., OAR (exceptional); next 4-17 Minneapolis, EMB and Washington Co., JO; 4-19 Minneapolis, VL; 4-21 Carver Co., RTH.

Robin: early 3-3 Beltrami Co., ME; 3-5 Stevens Co., JAH; 3-8 Washington Co., WWL; 3-9 Olmsted Co., AFR.

Wood Thrush: early 5-5 Lac Qui Parle Co., MHM; 5-7 Minneapolis, FN/MAS; 5-9 Minneapolis, VL; 5-10 Houston Co., FL; one northwesterly record, 5-21 Buffalo River State Park, Clay Co., 1 seen and heard, *vide* EGA.

Hermit Thrush: early 3-31 Minneapolis, FN/MAS; 4-2 Minneapolis, VL; 4-4 Minneapolis, DB; 4-6 Minneapolis, KP and Mille Lacs Co., MIV.

Swainson's Thrush: early 4-18 Nobles Co., HSH; 4-22 Traverse Co., *vide* EGA;

4-23 Pope Co., JAH; 4-24 Duluth, JGH.

Gray-cheeked Thrush: early 4-19 Nobles Co., HSH; 4-24 Stearns Co., KE; 4-27 Pope Co., WH; 5-1 Fargo-Moorhead, *fide* EGA; late 5-25 Stevens Co., JAH, Minneapolis, EMB; 5-29 Washington Co., DS and Cass Co., JAM; 5-30 Chisago Co., FVS and Ramsey Co., RJC.

Veery: 4-24 Duluth, JGH (exceptional); next 5-6 Chisago Co., FVS and Fargo-Moorhead, *fide* EGA; 5-7 Minneapolis, FN/MAS, Duluth, PBH.

Eastern Bluebird: early 3-8 Rice Co., OAR; 3-11 Wabasha Co., DGM; 3-15 Olmstead Co., HBW; 3-16 Goodhue Co., EMB, DB, Carver Co., RTH, Winona Co., BT.

Blue-gray Gnatcatcher: Houston Co., 5-4, EHH, DB, 5-10, FL, 5-11, HSH, VL, 5-12, RLH, GNR, ELC; Goodhue Co., 5-4, AFR, 5-11, BL, 5-12, MHM, 5-19, EMB, 5-21, EWJ, FN/MAS; Hennepin Co., Minneapolis, 5-11, TKS.

Golden-crowned Kinglet: early 3-17 Rice Co., OAR; 3-20 Washington Co., JO; 3-24 Stevens Co., JAH.

Ruby-crowned Kinglet: early 3-30 Minneapolis, EMB; 4-2 Minneapolis, VL; 4-5 Fargo-Moorhead, *fide* EGA; 4-6 Minneapolis, KP, DB.

Water Pipit: early 3-30 Lac Qui Parle Co., EHH, DB; 4-19 to 5-3 Moorhead, *fide* EGA; 5-2 Hennepin Co., GES; 5-3 Stearns Co., KE; late 5-22 Carver Co., RTH; very few records this spring.

Sprague's Pipit: 5-30 Felton, Clay Co., 1 singing male at usual spot, AB, RLH.

Bohemian Waxwing: 3-19 Marshall Co., AWR; 4-18 Fargo-Moorhead, *fide* EGA; 5-21 Bemidji, Beltrami Co., 26, JAM, undoubtedly latest date on record.

Northern Shrike: late 3-24 Cottonwood Co., LAF; 3-25 Watonwan Co., EDK; 4-7 Lake Co., RK.

Loggerhead Shrike: early 3-9 Marshall Co., AWR; 3-11 Anoka Co., FN/MAS (both exceptional); 3-17 Rice Co., OAR; 3-24 Goodhue Co., EMB and Chisago Co., FVS.

Bell's Vireo: 5-25 Frog Lake, Stevens Co., 1 singing and seen, DB, RG, EHH, HFH (see Notes of Interest in previous

issue); an astounding record, only report.

Yellow-throated Vireo: early 5-4 Stearns Co., KE; 5-9 Pope Co., JAH; 5-11 Washington Co., DS, Goodhue Co., BL, Hennepin Co., TKS, Houston Co., FL.

Solitary Vireo: early 4-25 Stevens Co., JAH; 5-2 Anoka Co., WHL; 5-3 Minneapolis, GES; 5-5 Hennepin Co., DB, JAJ.

Red-eyed Vireo: early 5-11 Houston Co., DB, Goodhue Co., BL; 5-12 Houston Co., RLH, Minneapolis, EHH.

Philadelphia Vireo: early 5-12 Minneapolis, EHH; 5-14 Lake Co., RK; 5-15 Houston Co., FL; 5-18 Goodhue Co., BL.

Warbling Vireo: early 5-2 Minneapolis, DB, Carver Co., MHM; 5-4 Winona Co., EHH, Anoka Co., WHL; 5-10 Carver Co., RTH, Wabasha Co., DGM.

Black-and-white Warbler: early 4-29 Fargo-Moorhead, *fide* EGA; 5-2 Hennepin Co., KP, Stearns Co., KE; 5-3 Anoka Co., WHL, Pope Co., WH; 5-5 Minneapolis, DB, VL, JAJ; 5-6 Traverse Co., JAH, Nobles Co., HSH, Minneapolis, EHH; one very early record in northeast, 5-8 Tofte, Cook Co., MOP.

Prothonotary Warbler: 5-10 Washington Co., WWL; 5-11 Hennepin Co., TKS and Goodhue Co., AFR; 5-14 Houston Co., FL; 5-14 Goodhue Co., EHH; 5-30 Wabasha Co., DGM.

Golden-winged Warbler: early 5-11 Hennepin Co., JAJ, EHH; 5-12 Goodhue Co., EMB; 5-14 Minneapolis, FN/MAS, DB; westerly record, 5-21 Mt. Lake, Cottonwood Co., LAF; two northerly records, 5-30 Clearwater Co., KE; 6-2 Red Lake Reservation, Beltrami Co., JAM.

Blue-winged Warbler: early 5-3 Houston Co., FL; 5-11 Houston Co., KP, DB, VL, Goodhue Co., BL and Hennepin Co., *fide* RDT; 5-12 Houston Co., ELC, RLH, Goodhue Co., EMB; 5-14 Goodhue Co., EHH.

Blue-winged x Golden-winged Warbler: two reports of the "Brewster's" phenotype: 5-15 Minneapolis, FN/MAS; 5-22 Alma, Wisconsin adjacent to Wabasha Co., Minnesota, DGM.

Tennessee Warbler: early 4-25 Clay Co., *fide* EGA; 5-1 Minneapolis, GES; 5-4

Wabasha Co., DGM; 5-5 Minneapolis, EHH, St. Paul, RJC.

Orange-crowned Warbler: early 4-19 St. Paul, RJC; 4-23 Fargo-Moorhead, *vide* EGA; 4-27 Bemidji, Beltrami Co., JAM; 4-28 Hennepin Co., CKS, EMB, Stearns Co., KE; 4-29 Minneapolis, DB, EHH; late 5-23 Duluth, PBH; 5-25 Pope Co., JAH; Carver Co., RTH and St. Paul, RJC; 5-27 Morrison Co., LSR.

Nashville Warbler: early 5-2 Washington Co., WWL, Minneapolis, DB, EHH; 5-4 Stearns Co., KE; 5-5 Minneapolis, VL, Pope Co., JAH, Cook Co., MOP (early up there); 5-7 Minneapolis, FN/MAS, and Morrison Co., LSR.

Parula Warbler: early 4-12 Minneapolis, Daryl Weekly *vide* DB; 4-16 Minneapolis, DB, EHH, VL, FN/MAS; none again until 5-2 Washington Co., RLH; 5-7 Minneapolis, FN/MAS; 5-12 Houston Co., FL, Hennepin Co., JAJ; two westerly records, 5-14 Nobles Co., HSH; 5-22 to 6-3 Fargo-Moorhead, *vide* EGA.

Yellow Warbler: early 4-29 Fargo-Moorhead, *vide* EGA; 5-3 Carver Co., MHM; 5-4 Houston Co., DB, EHH; 5-7 Minneapolis, FN/MAS, Wabasha Co., DGM and Crow Wing Co., MSB.

Magnolia Warbler: early 5-2 Washington Co., DS; 5-6 Washington Co., WWL and Fargo-Moorhead, 50, *vide* EGA; 5-7 Minneapolis, DB; 5-11 Rice Co., OAR.

Cape May Warbler: a fantastic year, reported by at least 21 observers; early 5-8 Lutsen, Cook Co., RLG (early up there); 5-11 Goodhue Co., BL and Minneapolis, CLH; 5-12 Minneapolis, EHH, Anoka Co., WHL; 5-13 Minneapolis, DB, EMB; 5-14 Stearns Co., KE, Morrison Co., LSR, Chisago Co., FVS and Lake Co., RK.

Myrtle Warbler: early 4-2 Minneapolis, FN/MAS; 4-4 Minneapolis, EMB; 4-6 Minneapolis, DB; 4-7 Hennepin Co., KP; 4-12 Minneapolis, VL.

Black-throated Green Warbler: early 5-7 Minneapolis, DB; 5-8 Fargo-Moorhead, *vide* EGA; 5-11 Sherburne Co., KE; 5-12 Lake Co., JCG; one southwesterly record, 5-18 Mt. Lake, Cottonwood Co., LAF.

Cerulean Warbler: early 5-11 Houston Co., DB, KP, FL; 5-12 Houston Co., VL,

ELC, RLH, GNR, Minneapolis, RBJ; 5-14 Stearns Co., KE, Goodhue Co., FN/MAS, EHH, Becker Co., LJK; one southwesterly record, 5-28 Mt. Lake, Cottonwood Co., LAF.

Blackburnian Warbler: early 5-8 Morrison Co., LSR; 5-9 Fargo-Moorhead, *vide* EGA; 5-12 Stearns Co., KE; 5-13 Anoka Co., WHL, Minneapolis, FN/MAS, DB; 5-14 Hennepin Co., KP and Duluth, JCG.

Chestnut-sided Warbler: early 5-2 Fargo-Moorhead, *vide* EGA; 5-7 Minneapolis, VL, FN/MAS; 5-9 Minneapolis, DB; 5-11 Washington Co., DS.

Bay-breasted Warbler: early 5-10 Fargo-Moorhead, *vide* EGA; 5-12 Goodhue Co., EMB; 5-13 Minneapolis, DB; 5-14 Minneapolis, FN/MAS.

PRAIRIE WARBLER: 5-30 Wayzata, Hennepin Co., 1 singing, seen by Mrs. Andrew Fuller (see Notes of Interest in previous issue); second report for state.

Blackpoll Warbler: early 5-7 Tofte, Cook Co., MOP (very early up there); 5-8 Fargo-Moorhead, *vide* EGA; 5-11 Mille Lacs Co., MIV; 5-12 Carver Co., RTH; late 5-28 Minneapolis, VL, FN/MAS; 5-29 Duluth, JCG; 5-30 Clarwater Co., KE; 5-31 Anoka Co., WHL; 6-1 Ramsey Co., TKS; 6-2, 6-7 Fargo-Moorhead, *vide* EGA.

Pine Warbler: early 5-4 Crow Wing Co., TEM; next 5-15 Pine Co., RLH and Minneapolis, GES; 5-19 Washington Co., DS; 5-24 Washington Co., WWL.

Palm Warbler: early 4-27 Wabasha Co., DGM; 4-28 Minneapolis, EMB, DB, Washington Co., DS, Jackson Co., HSH; 4-29 Washington Co., JO, WWL, Minneapolis, EHH; 4-30 Minneapolis, FN/MAS; one very early record in the northeast, 5-6 Tofte, Cook Co., MOP.

Ovenbird: early 5-4 Rice Co., OAR; 5-6 Minneapolis, EHH and Fargo-Moorhead, *vide* EGA; 5-7 Minneapolis, VL, DB, FN/MAS; 5-8 Minneapolis, KP.

Northern Waterthrush: early 4-28 Minneapolis, DB, JAJ; 5-1 Minneapolis, VL; 5-2 Minneapolis, EHH; 5-6 Fargo-Moorhead, *vide* EGA.

Louisiana Waterthrush: 5-4 Houston Co., DB, EHH; 5-12 Houston Co., FL, ELC, RLH; 5-14 Minneapolis, FN/MAS; 5-15

Minneapolis, VL; 5-22 Carver Co., MHM; only reports.

Connecticut Warbler: 5-12, 5-21 to 6-2 Fargo-Moorhead, *vide* EGA; 5-21 Clearwater Co., WHL; 5-22 Morrison Co., LSR; 5-27 Duluth, JCG; 5-30 Clearwater Co., KE; only reports.

KENTUCKY WARBLER: 5-14 Lake Harriet, Hennepin Co., 1 ad male seen by GES, seen and heard singing by DB, KP (see Notes of Interest in previous issue).

Mourning Warbler: early 5-11 Hennepin Co., JAJ; 5-13 Fargo-Moorhead, *vide* EGA; 5-14 Minneapolis, FN/MAS; 5-19 Minneapolis, DB.

Yellowthroat: early 5-2 Anoka Co., WHL; 5-7 Morrison Co., LSR, Minneapolis, FN/MAS and Fargo-Moorhead, *vide* EGA; 5-8 Minneapolis, DB, KP; 5-9 Cottonwood Co., LAF and Minneapolis, EHH.

Wilson's Warbler: early 5-8 Mille Lacs Co., MIV; 5-9 Minneapolis, VL, Morrison Co., LSR, Pope Co., WH; 5-10 Minneapolis, EHH, GES, Stearns Co., KE and Fargo-Moorhead, *vide* EGA; 5-11 Houston Co., KP and Hennepin Co., TKS; late 5-27 Morrison Co., LSR; 5-28 Minneapolis, FN/MAS; 5-29 Minneapolis, VL; 5-30 Cottonwood Co., LAF and Ramsey Co., TKS; one exceptional record, 6-15 Welch, Goodhue Co., RG.

Canada Warbler: early 5-14 Stearns Co., KE; 5-15 Stevens Co., JAH; 5-19 Goodhue Co., EMB; 5-20 Washington Co., WWL, Morrison Co., LSR.

American Redstart: early 4-30 Goodhue Co., DS; 5-3 Anoka Co., WHL; 5-6 Fargo-Moorhead, *vide* EGA; 5-7 Minneapolis, FN/MAS and Crow Wing Co., MSB.

Bobolink: early 4-28 Washington Co., DS, WWL; 5-2 Anoka Co., WHL; 5-4 Rice Co., OAR and Houston Co., EHH, DB; 5-9 Aitkin Co., CEP.

Eastern Meadowlark: early 3-9 Aitkin Co., CEP; 3-10 Hennepin Co., CLH; 3-14 Washington Co., DH; 3-16 Dakota Co., RBJ and Chisago Co., FVS.

Western Meadowlark: early 3-2 Fargo-Moorhead, *vide* EGA; 3-5 Dakota Co., DB; 3-8 Rice Co., OAR; 3-9 Olmsted Co., AFR, Nobles Co., HSH and Minneapolis, FN/MAS.

Yellow-headed Blackbird: early 4-7 Rice Co., OAR; 4-10 Lincoln Co., BL; 4-12 McLeod Co., FN/MAS and Swift Co., HSH; 4-14 Nicollet Co., EMB.

Orchard Oriole: 5-18, 5-31 Nobles Co., HSH; 5-27 Stevens Co., JAH; only reports.

Baltimore Oriole: early 5-3 Wabasha Co., DGM, Winona Co., EHH and Minneapolis, VL; 5-4 Houston Co., DB; 5-6 Chisago Co., WHL; 5-7 Rice Co., OAR, Minneapolis, RBJ, FN/MAS and Morrison Co., LSR.

Rusty Blackbird: late 4-24 Lake Co., 50, RK; 4-25 Duluth, 60, JCG; 5-3 Stevens Co., 200, JAH; 5-5 Cook Co., 4, MOP; exceptional 5-30 Clearwater Co., 1, KE.

Brewer's Blackbird: early 3-15 Carver Co., MHM; 3-20 Rice Co., OAR; 3-23 Washington Co., DS; 3-24 Anoka Co., WWL, Wabasha Co., GES, BT and Fargo-Moorhead, *vide* EGA.

Common Grackle: early 3-1 Wabasha Co., DGM; 3-2 Anoka Co., WHL; 3-9 Olmsted Co., HBW; 3-10 Cottonwood Co., LAF, Pope Co., WH, Big Stone Co., JAH and Nobles Co., HSH.

Brown-headed Cowbird: early 3-18 Rice Co., OAR; 3-23 Dakota Co., DB; 3-29 Hennepin Co., GES; 3-30 Fillmore Co., AFR and Aitkin Co., CEP.

Scarlet Tanager: early 5-1 Aitkin Co., CEP; 5-7 Minneapolis, FN/MAS, VL; 5-11 Houston Co., FL; 5-12 Houston Co., DB, Goodhue Co., EMB and Carver Co., RTH.

SUMMER TANAGER: 5-11 St. Paul, Ramsey Co., 1 moulting male seen by Manley Olson (see Notes of Interest in previous issue).

WESTERN TANAGER: 5-26 Morris, Stevens Co., Frank and Mary Breen (see Notes of Interest in previous issue).

Cardinal: reported from Carver, Wright, Hennepin, Winona, Olmsted, Chisago, Rice, Stearns, Ramsey, Houston, Stevens, Cottonwood, Anoka, Wabasha, Washington Co's and Fargo-Moorhead; several northerly reports, also: 5-20 Crow Wing Co., 2, MSB; 5-25 Shotley, Beltrami Co., pair, MG; "May," near Onamia, Mille Lacs Co., MIV.

Rose-breasted Grosbeak: early 4-12 (ex-

ceptional) Hamel, Hennepin Co., 1, FN/MAS; 4-28 Ramsey Co., RJC; 5-2 Rice Co., OAR; 5-3 Houston Co., FL and Washington Co., WWL; 5-4 Houston Co., DB, EHH.

Indigo Bunting: early 5-7 Minneapolis, FN/MAS; 5-10 Rice Co., OAR; 5-12 Houston Co., VL, Anoka Co., WHL, Goodhue Co., EMB and Hennepin Co., JAJ.

Dickcissel: early 4-20 (exceptional) Fargo-Moorhead, *fide* EGA; 5-3 Stearns Co., KE; 5-10 Wright Co., EHD; 5-19 Goodhue Co., EMB and Lake Co., Two Harbors, 1 at feeder, RK (may be only record for Lake Co.?); 5-21 Nobles Co., HSH; 5-25 Lac Qui Parle Co., DB.

Evening Grosbeak: all winter until 4-11 Crow Wing Co., MSB; present on into May in Cook, Lake, St. Louis, Beltrami, Hubbard, Clearwater Co's.; two westerly records, 3-14 Becker Co., 2 mi. E. Detroit Lakes, 50, LJK; 4-17, 5-1 Fargo-Moorhead, *fide* EGA.

Pine Grosbeak: late 3-2 Beltrami Co., 1, JAH; 3-3 Cook Co., 3, MOP; 3-7 Morrison Co., 3, DF; exceptional 3-30 (30) and 4-1 (12) Lake Vadnais, Ramsey Co., FN/MAS.

Hoary Redpoll: 3-2 Ponemah, Beltrami Co., 1 with 3 Common Redpolls, JAH; only report.

Common Redpoll: late 3-20 to 3-25 Minneapolis, seen and heard, VL; 3-25 Cook Co., MOP; 3-26 Beltrami Co., MG; exceptional 4-24 Cook Co., 100's, MOP and 4-29 Fargo-Moorhead, 1 *fide* EGA.

Pine Siskin: reported in March from Carver, Stearns, Morrison, Aitkin, Beltrami, Cook and Lake-of-the-Woods Co's.; in April from Lake-of-the-Woods, Beltrami and Cook Co's.; in May only from Cook Co. and Fargo-Moorhead.

Red Crossbill: reported in March from Beltrami, St. Louis, Crow Wing, Stearns and Hennepin Co's.; in April from Cook, St. Louis, Beltrami and Stearns Co's.; last report was 5-9 Collegeville, Stearns Co., 2, KE.

Rufous-sided Towhee: early 4-28 Hennepin Co., JAJ and Fargo-Moorhead, *fide* EGA; 4-30 Goodhue Co., BL; 5-2 Carver Co., RTH; 5-3 Houston Co., FL.

LARK BUNTING: 5-27 St. Paul, Ramsey Co., 1 ad male, KH (see Notes of Interest in previous issue).

Savannah Sparrow: early 3-30 Rothsay, Wilkin Co., DB, EHH; 4-12 Sibley Co., FN/MAS; 4-13 Carver Co., MHM; 4-15 Big Stone Co., JAH.

Grasshopper Sparrow: early 4-14 Jordan, Scott Co., 1, EMB (exceptional); next 4-25 Fargo-Moorhead, *fide* EGA; 5-9 Washington Co., WWL; 5-15 Carver Co., RTH; 5-25 Stearns Co., KE.

BAIRD'S SPARROW: 5-30 Clay Co., 3 mi. SE Felton, 1 singing male seen by AB, RLH; all field marks noted, but the very distinctive song is still the most reliable character; this "itinerant feather-merchant" seems to be nomadic along our western border, but perhaps, optimistically, it may still breed in small isolated colonies of untouched prairie?

Leconte's Sparrow: 4-27 St. Bonifacius, Carver Co., RTH; 5-2 Pope Co., WH; 5-10 Washington Co., BL; 5-22 Tofte, Cook Co., 1, MOP; 5-23 Fargo-Moorhead, *fide* EGA; 5-29 Clay and Marshall Co's.; 5-28 Minneapolis, GES.

Sharp-tailed Sparrow: 5-30 Mahnomen Co., 4 mi. S. Waubun, 1 singing male at usual spot, AB, RLH.

Vesper Sparrow: early 3-30 Nobles Co., HSH; 4-4 Tofte, Cook Co., MOP (very early that far north, also unusual for NE corner); 4-6 Lac Qui Parle Co., KE; 4-9 Wabasha Co., DGM; one other NE record, 5-6 Two Harbors, Lake Co., 4, RK.

Lark Sparrow: early 4-28 Carver Co., EMB and Fargo-Moorhead, *fide* EGA; 5-10 Sherburne Co., 40, KE; 5-18 Nobles Co., HSH; 5-27 Lac Qui Parle Co., KE; one northwesterly record, 5-30 Wahpeton, North Dakota (just across river from Breckenridge, Minn.), 2, RLH.

Slate-colored Junco: latest in south, 5-5 Carver Co., RTH and Hennepin Co., JAJ; 5-6 Duluth, JCG; 5-7 Hennepin Co., CKS; one exceptional date, 5-27 Anoka Co., WHL.

Oregon Junco: late 3-17 Minneapolis, EHH; 3-23 Carver Co., RTH; 3-29 Stearns Co., KE; 3-30 Minneapolis, EBM; 4-14 Shotley, Beltrami Co., MG.

Tree Sparrow: late 4-22 Wabasha Co.,

DGM; 4-24 Lake Co., RK; 4-27 Cook Co., MOP; 4-30 Duluth, PBH, JCG.

Chipping Sparrow: early 3-18 Marshall Co., AWR (exceptional); 3-28 Fargo-Moorhead, *vide* EGA; 4-1 Aitkin Co., CEP and Beltrami Co., MG (all 3 records early for their respective latitudes); 4-6 Ramsey Co., RJC; 4-10 Stearns Co., KE, and Washington Co., WWL; 4-12 Wabasha Co., DGM and Rice Co., OAR.

Clay-colored Sparrow: early 4-29 Pope Co., JAH; 5-2 Hennepin Co., VL and Fargo-Moorhead, *vide* EGA; 5-3 Pope Co., WH; 5-4 Stearns Co., KE.

Field Sparrow: early 3-9 Wacouta, Goodhue Co., DB (singing (?) undoubtedly earliest date on record); next 4-10 Rice Co., OAR and Lyon Co., BL; 4-12 Wabasha Co., DGM and Washington Co., DS; 4-15 Minneapolis, EMB.

Harris' Sparrow: early 5-1 Nobles Co., HSH and Pope Co., JAH; 5-2 Pope Co., WH; 5-3 Morrison Co., LSR and Washington Co., WWL; 5-4 Stearns Co., KE; late 5-23 Pope Co., WH; 5-24 Lake Co., RK; 5-26 Morrison Co., LSR; 6-2 Beltrami Co., Shotley, 1, MG and Fargo-Moorhead, 1 at feeder all winter and spring, *vide* EGA.

White-crowned Sparrow: early 4-20 Ramsey Co., RJC; 4-24 Cook Co., MOP; 4-29 Fargo-Moorhead, *vide* EGA; 4-30 Hubbard Co., RBP; late 5-21 Carver Co., MHM, Lake Co., RK and Duluth, JCG; 5-27 Beltrami Co., MG; 5-29 Cook Co., MOP.

White-throated Sparrow: early 3-18 Fargo-Moorhead, *vide* EGA; 3-24 St. Louis Co., Meadowlands, MJH; 4-1 Fargo-Moorhead, *vide* EGA; 4-11 Cook Co., RLG; noteworthy that all the early records were from the north.

Fox Sparrow: early 3-14 Meadowlands, St. Louis Co., MJH and Winona Co., BT; 3-19 Washington Co., WWL; 3-20 Washington Co., JO; 3-30 Rice Co., OAR, Hennepin Co., EMB, Fillmore Co., AFR and Crow Wing Co., MSB; late 4-27 Cook Co., MOP; 5-3 Stearns Co., KE; 5-6 Hennepin Co., CKS; 5-18 Beltrami Co., MG.

Lincoln's Sparrow: early 4-20 Hennepin Co., FN/MAS; 4-25 Hennepin Co., DB;

4-26 Stearns Co., KE; 4-28 Hennepin Co., EMB.

Swamp Sparrow: early 3-25 Washington Co., WWL; 4-6 Washington Co., DS; 4-16 Hennepin Co., VL, FN/MAS; 4-18 St. Paul, BL and Duluth, PBH.

Song Sparrow: early 3-10 Big Stone Co., JAH; 3-11 Wabasha Co., DGM; 3-16 Goodhue Co., DB, EMB; 3-18 Olmsted Co., HBW and Aitkin Co., CEP.

Lapland Longspur: latest 3-30 Ottertail Co., EHH; 4-15 Lac Qui Parle Co., BL; 5-3 Stearns Co., KE.

Chestnut-collared Longspur: 5-29 (3,KE), 5-30 (50,AB,RLH) Clay Co., usual spot near Felton.

Snow Bunting: late 4-23 Washington Co., DS; 4-24 Cook Co., MOP; 4-25 Lake Co., RK; 4-24 (JCG), 4-26 (JPP) and 5-9 (PBH) Duluth.

SUMMARY: 81 observers recorded approximately 284 species. Most noteworthy this Spring were the cleft appearances of many species, usually indicated by some astonishingly early dates, then a noticeable gap, and finally another surge of migrants. Beyond that, the extremes in weather probably influenced the birders more than the birds, so that any other generalizations are all but impossible. Rarely does a season go by with no reports of unusual species and this Spring was no exception. The European Widgeon, Long-billed Curlew, Iceland Gull, Black-legged Kittiwake, Prairie Warbler, Kentucky Warbler, Summer Tanager, Western Tanager, Lark Bunting and Baird's Sparrow were the highlights that added a special flavor to the Spring season.

ADDENDA TO THE WINTER SEASON, 1967-68:

White-winged Scoter: 2-3 Two Harbors, Lake Co., EMB.

Golden Eagle: 1-14 Goodhue Co., 4 mi. E. Vasa, EMB, RG, HFH.

Peregrine Falcon: 1-28 Eden Prairie, Hennepin Co., 1 photographed, EMB.

Snowy Owl: 2-3 Meadowlands (St. Louis Co.), EMB.

Black-backed Three-toed Woodpecker: 2-3 Tofte, Cook Co., EMB.

Red Crossbill: 2-3 Meadowlands, St. Louis Co., 1,000's, EMB.

White-winged Crossbill: 2-3 Meadowlands, St. Louis Co., 1,000's, EMB.

CORRIGENDA TO THE WINTER SEASON, 1967-68:

Loggerhead Shrike: 12-30 Barden, Scott Co., observers should be Goodman Larson and Les Dundas.

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SPECIAL REQUEST / NOTICE

The Seasonal Report has just finished its seventh complete year (28 seasons) under my compilation. The pressures of other duties and interests has been mounting constantly so that I am at last forced to unburden myself. Further precipitating this matter is the consistently increasing number of observers submitting reports, thereby creating a heavier workload. I would like to suggest that the chores be divided between four compilers, one for each season. Thus would a compiler be burdened only once yearly, and he or she could actually become a "winter specialist," etc. I will attempt to finish the 1968 seasons, Spring through Winter, before "retirement." Anyone interested in spending 40-100 hours on any one of the four seasons should contact me (or our editor, Bob Janssen) immediately. The wages are fantastic (free *Loon* subscription, occasional book review privileges, all the latest scoop on who is seeing what, and at least one kind of compliment annually about what a good job you're doing). CAUTION, once you've committed yourself, you're obligated to your readers and the editor to meet the publication deadline. If you back down under the workload, you let down 700 readers. However meticulous you may try to be, errors will be made, both by you and by the people reporting to you. There will be many unusual records requiring verification (and, on occasion, causing hard feelings about your skepticism). On the other hand, *there is no better way to learn about Minnesota birds*, both confirming and/or disputing certain preconceived ideas germinated by your own personal observations. I will gladly offer free consultation to any compiler who "runs into any snags." Now that I've delineated the advantages and disadvantages of the job, I'll relax and await the avalanche of mail from eager volunteers. *Ronald L. Huber, 480 State Office Bldg., St. Paul, Minnesota 55101.*

A Snowy Owl survey was made during the winter of 1966-67 in Minnesota, Michigan, North Dakota, South Dakota, Illinois, Iowa, and Wisconsin. This paper reports the results of this survey in Minnesota. Snowy Owl reports were obtained through an appeal to members of the Minnesota Ornithologists Union and various state Audubon societies.

The objective of the survey was to determine the numbers, distribution and activities of Snowy Owls, the duration of the invasion, and the habitats used by the birds during their stay in the state.

Of the 345 Snowy Owls reported in the North Central States by 175 observers, 92 were reported in Minnesota (Figure 1). Snowy Owls were first sighted in Minnesota in November and were seen most often during that month. Numbers decreased each succeeding month until the last owls were seen in May (Figure 2). Three May observations were noteworthy from the standpoint of being late records as normally the last owls are seen in April. One owl was seen on May 5 in the coal dock area of Rice's Point in the Duluth harbor. The other two observations were made in Beltrami County on May 16.

Habitats used by owls were recorded by observers (Table 1). Thirty-three owls were seen in open fields making it the most common habitat used. The Duluth harbor area was classified as a separate habitat because of its important role in the southern migration of the Snowy Owl. Lake Superior seems to be a barrier to owls as they move south and they "funnel" down the North Shore of the lake much as hawks do in September. Some owls stayed in the Duluth-Superior harbor area and set up winter territories where food was plentiful. Other owls dispersed into other parts of the state and many probably moved into Wisconsin.

Wisconsin had only nine Snowy Owl reports in November while Minnesota had 28. In contrast, Wisconsin reported 31 owls in December to Minnesota's 19. During a Snowy Owl invasion many owls

come into Minnesota first, funnel down the North Shore of Lake Superior in November, and reach Wisconsin in large numbers during December. This may explain Minnesota's reduced number of owls in December and the increase in Wisconsin during that month. More data is needed to make any definite conclusions and it is hoped that careful records will be made of Snowy Owls when they appear in the state in future years.

In a personal communication with Janet Green (Jan. 2, 1967), she noted that in Duluth a flurry of observations is typical in early November and indicates the peak of the winter influx. These owls are seen in a location for a day or so and then move on. She is not sure whether the birds seen in November are some of the same ones that later establish hunting territories in the harbor area and remain throughout the winter. Owls remaining in the harbor for most of a winter have ranged from one to seven. Snowy Owls are seen almost every winter in the harbor and if one wishes to see this owl (Figure 3) there is an excellent chance of seeing one or more by carefully scanning the lake ice and pressure ridges.

Lake and river ice, urban areas, and marshes were other important habitats used by Snowy Owls. Habitat selection seemed to be based upon their resemblance to habitats in their native Arctic tundra. Owls often settled in urban areas undoubtedly because of the abundance of prey such as rats and pigeons.

Reports from observers also indicated perches used by Snowy Owls in the various habitats (Table 2). Utility poles, lake or river ice, the ground, and trees were preferred perches. This was true in other North Central States where utility poles and the ground were most often selected as perches. A skylight bubble on top of Brother Theodore Voelker's residence in St. Louis Park was used as a perch by a Snowy Owl for about 2½ hours on November 22. On December 15, the author observed an owl perched for 4½ hours on top of Northrup Auditorium on the University of Minnesota campus in Min-

from his back door on February 2. The owl started to eat it on the ground, was frightened, and flew over to an open field where Mrs. William Lender observed it at 11:30 a.m. feeding on the pheasant. She saw the owl rub its head in the snow a few times, then it moved about five feet further and appeared to be eating snow. The owl made swallowing motions with its head, preened a foot, and just sat there. Mrs. Lender left at noon, but returned at 2:30 to find the owl eating the pheasant again. During the winter, several other persons reported seeing the owl attack pheasants of which there were many in the area. Mr. Frantzich observed the owl catching mice on open land at the airport and Thomas E. Murphy saw it chasing a Jack Rabbit on March 18. The rabbit was running back and forth close to the airport fence and the owl was alternately flying and perching on the fence near the rabbit.

Janet Green reported that after the middle of December it is very unusual to see a Snowy Owl away from areas that provide a good food supply like the Duluth harbor where rats and pigeons are utilized as prey. Mice and shrews appear to be important in the diet of the Snowy Owl as several people saw owls catching these small animals.

Information is lacking on the activities of the Snowy Owl during darkness. The study reported here was done to obtain basic information about the Snowy Owl for possible radio-tracking studies in future years. It is hoped that the use of radio transmitters will reveal information about the Snowy Owl which cannot be obtained with ordinary observational methods. Such information is intended to provide a necessary and increased understanding, appreciation, and protection for this magnificent bird of prey from the far north.

SUMMARY

Ninety-two Snowy Owls were reported in Minnesota during the winter of 1966-67. Owls were seen from November through May with most sightings occurring in November. Open fields and the Duluth-Superior harbor area were important habitats. Forested areas were seldom used. Important perches used by

owls included utility poles, lake ice, and the ground. Daytime activity mainly consisted of perching and some preening with occasional attacks on prey. Important prey species included Meadow Voles, rats, pigeons, ducks, and Ring-necked Pheasants.

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TABLE 1. Habitats used by 88* Snowy Owls in Minnesota at time of observation, Winter 1966-67.

Number	Percent	Habitat
33	37	Open Field
26	30	Duluth harbor area
10	11	Lake ice
7	8	Urban area
6	7	Marsh
5	6	River ice
1	1	Woods
88	100	TOTALS

*Of 92 reports, four did not indicate habitat.

TABLE 2. Perches used by 80* Snowy Owls in Minnesota at time of observation, Winter 1966-67.

Number	Percent	Perch
18	22	Utility Pole
14	18	Lake or River ice
13	16	Ground
12	15	Tree
9	11	Miscellaneous
5	6	Muskrat house
4	5	Fence post
3	4	Haystack
2	3	Building Roof
80	100	TOTALS

*Of 92 reports, 12 did not indicate perch.

TABLE 3. Activities of 83* Snowy Owls at time of observation, Winter, 1966-67.

Number	Percent	Activity
42	50	Perching
24	29	Flying and perching
6	7	Attacking prey
5	6	Flying
3	4	Eating prey
3	4	Dead Owl
83	100	TOTALS

*Of 92 reports, nine did not indicate activity.

A STUDY OF WINTERING HORNED LARKS IN SOUTHWESTERN MINNESOTA

Bertin W. Anderson and Richard J. Oehlenschlager

INTRODUCTION

During the Winter of 1965, 1966, and 1967 138 Horned Larks were collected in Rock County in southwestern Minnesota to determine the subspecific composition of wintering populations in that area. Windy, blustery days when there is a snow cover provide the best opportunities for collecting and observing Horned Larks. Collections were made on February 15-16, 1965 and January 8-9, February 5-6, 1966, and February 17, 1967. A few birds from December 14, 1965, and some March 27, 1960, specimens are also included for purposes of comparing wintering birds with the local breeding population. All collecting was

done randomly with no more effort made to collect one kind than another.

Collecting on a given date might reveal the presence of one or more subspecies. Collecting on several different dates was planned for the following reasons:

1. If one subspecies was present on a given date, a different subspecies might be present on an earlier or later date.
2. If two or more subspecies were present on different dates, the ratios of each might vary from time to time.

Cursory examination of the collections revealed at least three forms which were separable using the following criteria:

	Form I	Form II	Form III
1. Color of the nape of neck	Brown	Reddish Brown	Reddish Brown
2. Rump color	Brown	Reddish Brown	Reddish Brown
3. Streaks on breast	Absent	Dark Brown	Dark Brown
4. Throat color	Yellow	Very Pale Yellow	Rich Yellow
5. Color of dorsal plumage	Pale chocolate	Dark Brown	Dark Brown

Following separation of different color categories, measurements were made in order to compare the mensural characters of each category. Measurements were taken in the following manner:

1. Total length—with the bird stretched tautly on a meter stick to the nearest millimeter.
2. Extended length—with wings spread tautly on a meter stick to the nearest millimeter.
3. Flat wing—from the proximal tip of the carpo-metacarpus to the tip of the longest primary with the wing pressed flat on a meter stick to the nearest millimeter.
4. Wing cord—with a dial caliper from the proximal end of the carpo-metacarpus to the tip of the longest primary as the wing assumes its normal curve to the nearest millimeter.
5. Tarsus—with a dial caliper from the joint between the tarso - metatarsus

and tibio-tarsus to the joint between the former and the middle toe to the nearest one-tenth millimeter.

6. Tail—with a dial caliper from the base of the central rectrices to the tip of the longest feather to the nearest one-tenth millimeter.
7. Culmen from the anterior edge of the nostril — with a dial caliper from the anterior edge of the nostril to the tip of the maxilla to the nearest one-tenth millimeter.
8. Weight—on a balance to the nearest one-tenth gram.
9. Gonads—with a dial caliper length times width at the widest place to obtain a relative figure.

RESULTS

Samples from all dates were combined. The following table shows the analysis of mensural characters for the birds of form I (light colored birds) and form II (dark colored birds).

Females							
Form	Character	N	X	Range	1SD	2SE	Coef. Var.
Dark	<u>Weight</u>	20	43.0	39.4- 47.2	2.5	1.1	1.3%
Light		16	34.3	30.8- 39.9	2.5	1.2	1.9
Dark	<u>Extent</u>	13	322	305 -342	9.9	5.4	1.0
Light		12	317	305 -331	6.1	3.5	1.0
Dark	<u>Total</u>	15	175	168 -185	5.7	3.0	1.0
Light	<u>Length</u>	14	171	165 -176	3.6	1.9	1.0
Dark	<u>Wing (F)</u>	15	106	100 -110	3.3	1.7	1.7
Light		12	100	95 -106	3.8	2.2	1.1
Dark	<u>Wing (C)</u>	20	103	99 -114	3.4	1.5	1.5
Light		16	98	93 -108	4.0	2.0	1.1
Dark	<u>Tail</u>	19	63.3	55.7- 69.9	3.2	1.5	1.2
Light		16	64.0	61.4- 72.3	2.6	1.3	1.1
Dark	<u>Tarsus</u>	19	21.9	20.9- 23.2	0.6	0.24	1.3
Light		16	20.5	18.6- 21.8	0.8	0.41	1.1
Dark	<u>C. A. N.</u>	17	8.5	8.0- 9.4	0.4	0.21	1.2
Light		16	8.3	7.5- 9.0	0.3	0.20	1.1
Dark	<u>Gonads</u>	16	15.0	8.0- 25.0	6.2	2.1	10.4
Light		13	21.7	10.0- 36.0	8.0	4.4	10.3

Table I. Analysis of mensural characters for the light form and the dark form of females. N = sample size, X = mean, SD = one standard deviation, SE = standard error and Coef. var. = coefficient of variability expressed as a percent. The dark birds have highly significantly larger wing measurements and are highly significantly heavier. The light form has significantly larger gonads.

Males							
Form	Character	N	X	Range	1SD	2SE	Coef. Var.
Dark	<u>Weight</u>	38	46.0	40.0- 50.7	3.0	1.0	1.1%
Light		50	37.4	33.0- 41.8	2.3	0.7	1.8
Dark	<u>Extent</u>	28	343	322 -360	8.3	2.1	1.0
Light		36	332	300 -344	7.9	2.6	1.0
Dark	<u>Total</u>	35	190	179 -209	7.2	2.4	1.0
Light	<u>Length</u>	41	182	170 -190	4.2	1.3	1.0
Dark	<u>Wing (F)</u>	32	111	101 -121	4.0	1.4	1.0
Light		42	107	100 -113	3.3	1.0	1.0
Dark	<u>Wing (C)</u>	38	109	102 -115	3.1	1.1	1.0
Light		49	104	97 -110	2.5	0.7	0.7
Dark	<u>Tail</u>	37	70.1	63.2- 77.0	3.5	1.2	1.7
Light		47	70.4	66.1- 75.5	2.4	0.7	1.4
Dark	<u>C. A. N.</u>	36	9.0	8.0- 9.8	0.4	0.1	1.4
Light		49	9.1	8.3- 9.9	0.4	0.1	1.2
Dark	<u>Tarsus</u>	34	22.3	21.1- 23.8	0.6	0.2	1.0
Light		48	21.3	20.2- 22.6	0.5	0.2	1.0
Dark	<u>Gonads</u>	24	1.8	1.0- 5.0	1.2	0.5	14.0
Light		42	11.8	1.0- 39.0	19.1	5.9	25.0

Table II. Analysis of mensural characters for the light form and dark form of males. Legend same as for Table I. The dark colored males have highly significantly longer extent, total length, wing measurements and tarsus and are highly significantly heavier. The light colored birds have highly significantly larger gonads.

We find that 38 (43%) of the winter males are dark colored birds and 50 (37%) are light colored. Percentages by dates are as follows.

Date	N	% Dark	% Light
14 Dec.	3	67	33
8 Jan.	14	64	36
5 Feb.	12	50	50
14 Feb.	35	37	63
17 Feb.	14	36	64
27 Mar.	5	0	100

It can be seen that there is a progressive increase in light colored birds as the winter wears on. These trends no doubt fluctuate with changing weather conditions. Analysis in spring is made difficult because progressive plumage wear may render specimens incomparable by then.

Among females light colored birds constitute 44 percent (16) while dark colored specimens account for 56 percent (20) of the wintering samples. The higher percentage of dark females than dark males indicates that light females perhaps winter farther south on the average than do light colored males. Further study is necessary to verify these points. Percentages of light and dark females by date are as follows.

Mean Values

Date	N	Wt.	N Ext.	N TL.	N W.F.	N Tail	N Tar.	N CAN	N Gonads				
Dark Males													
14 Dec.	2	45.8	2	349	2	196	0	-	2 75.1	2 22.2	2 8.8	0	-
8 Jan.	9	47.9	5	336	8	188	9	111	9 70.2	9 22.6	9 8.9	8	2.3
5 Feb.	6	47.4	5	345	5	193	12	114	5 72.0	4 22.0	4 9.3	3	1.7
14 Feb.	13	44.2	19	345	13	188	13	111	13 71.0	11 22.2	11 8.8	7	1.3
17 Feb.	5	47.5	4	343	4	189	4	113	5 69.2	5 22.3	5 9.2	2	2.0
Light Males													
14 Dec.	1	34.7	0	-	0	-	0	-	1 21.3	1 8.3	1 12.0		
8 Jan.	5	39.5	5	329	5	184	5	110	5 71.2	5 21.5	5 9.2	4	1.3
5 Feb.	6	38.9	3	335	4	185	5	110	5 71.0	6 21.3	6 9.2	2	9.9
14 Feb.	22	37.4	19	334	22	181	21	105	8 70.8	20 21.2	21 9.1	21	14.2
17 Feb.	9	37.5	8	331	8	182	9	109	21 69.1	9 21.4	9 9.0	8	7.9
27 Mar.	5	34.0	0	-	0	-	0	-	5 69.2	5 21.3	5 9.5	5	20.8

Table III. An analysis of light and dark colored birds on each collecting date. Since the sample sizes are very small only the means are shown. N = sample size.

This brings us to the question of the nomenclature status of the light and dark colored birds. The first stage in such a determination is to review the subspecies of Horned Larks which are known to occur in western Minnesota. Roberts (1932) recognized two wintering races, *E. a. hoyti* (Hoyt's Horned Lark) and *E. a. alpestris* (Northern Horned Lark), and

Date	N	% Dark	% Light
14 Dec.	1	100	100
8 Jan.	10	90	108
5 Feb.	1	100	0
14 Feb.	9	44	56
17 Feb.	13	62	38
27 Mar.	2	0	100

It is obvious that there is a trend for lighter birds in early (December) and late (February) winter and for darker birds in mid-winter (January). It is also apparent that on any given date in the winter light and dark birds of both sexes are likely to be found in southwestern Minnesota—at least on blustery days when there is a snow cover.

DISCUSSION

An analysis of dark males (Table III) reveals rather consistent measurements on each date with the exception of weight and extent on January 8 and February 14 and 17. Further statistical analysis of the birds on these dates reveals that the January 8 birds are significantly heavier than those of February 14 at the 95 percent confidence level. The rest of the measurements fall well within expected variation. The differences can probably be attributed to small sample sizes.

two breeding races, *E. a. praticola* (Prairie Horned Lark) and *E. a. leucolaema* (Desert Horned Lark). Oberholser (1902) described *E. a. enthymia* (Saskatchewan Horned Lark) and Coues (1874) described the Desert Horned Lark. Dickerman (1964) states that these two races need careful consideration and perhaps should be united into a single

race *enthymia*. As the situation now stands *enthymia* reportedly breeds in eastern prairie regions west to Montana, Wyoming and Colorado, while *leucolaema* is found in Montana, Wyoming and Colorado (A.O.U. 1957). Dickerman goes on to state that western Minnesota *leucolaema* (or *enthymia*) are "easily separable" from eastern Minnesota *praticola*. We have examined (although cursorily) the same specimens (in the James Ford Bell Museum of Natural History) and do not share Dickerman's confidence in this separation. In spite of the ease in separating the various races, Dickerman suggests that a revision of the whole group is "badly needed" and states that Marshall and Phillips think that only two races of North American *Eremophila alpestris* should be recognized. Sutton (1932) introduced a further interesting speculation when he suggested that *hoyti* might be an arbitrary unit and that this series of northern populations probably represents a cline linking *alpestris* in the east with *arcticola* in the west. At any rate it can be stated with certainty that Horned Larks display remarkable geographic variation. Now follows an attempt to get a general idea of what races are included in this sample.

E. a. hoyti is described by Bent (1942) as "being similar to *alpestris* but with the upper parts generally paler and more gray, the posterior auriculars gray rather than brown and the yellow of the head and neck replaced by white . . . the throat is yellow." *E. a. leucolaema* is a smaller bird, paler dorsally and lacks the reddish brown rump and nape which characterize *alpestris* and *hoyti* (Bent 1942). There may be some overlap in one or more color characters with any given specimen. If overlap was noted in only one or two color characters, the bird in question was relegated to that form to which it was most similar. Some birds, however, were strictly intermediate. The intermediate category included 14 (10.2%), which are not included in this report but several could have been categorized had measurements been considered.

We would tentatively conclude that the larger birds, dark dorsally, with reddish nape and rump and pale yellow throats

(Form II) represent birds from populations of *E. a. hoyti* (or a clinical population from the *alpestris*, *hoyti*, *arcticola* complex). A single specimen seemed to match the description of *alpestris* very closely (Form III). The smaller, paler birds lacking the reddish brown on the nape and rump are probably allied to the *enthymia* - *praticola* - *leucolaema* group (Form I). This thesis is supported by the fact that the 27 March birds fit nicely (at least to us) into this group, and they were breeding birds.

The birds of the *leucolaema*-*praticola*-*enthymia* group average smaller in all measurements with two exceptions. The bill length of the light colored males averages slightly larger and the gonads of the light colored birds are considerably larger than those of the dark colored birds. Since the dark birds breed in the subarctic (Bent, 1942) and winter farther north, their larger body size (Bergman's Rule) and proportionately smaller tarsus and bill (Allen's Rule) appear to be physiological adaptations for preventing heat loss. The light colored prairie birds have larger gonads because they breed earlier than the dark colored arctic birds.

The males of both light birds and dark birds average rather strikingly larger than the females. (See Table I.) Amadon (1950) explains that sexual dimorphism is often the result of competition among males in selection of a mate. In such struggles the larger and stronger than average have a reproductive advantage.

SUMMARY

1. Samples of Horned Larks were taken on six dates during the winter in order to determine the subspecific composition of flocks wintering in southwestern Minnesota.
2. Separation of a light colored form of males and females from a dark colored form of males and females was followed by a statistical analysis of mensural characters in each sex of each group.
3. These measurements revealed that the light colored birds averaged significantly smaller than the dark colored birds in several measurements.
4. After a brief review of the taxonomy of this group, it was concluded that the dark birds are probably closely

allied with *Eremophila alpestris hoyti* and that the smaller, light colored birds are more closely allied to the *E. a. enthyimia - leucolaema* group. Both forms can be expected to be found on blustery winter days in southwestern Minnesota in December, January, and February, and with experience and careful observation they can be distinguished in the field.

5. Some biological explanations were offered as possibilities explaining size differences between the two forms.

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NOTE TO EDITOR

We do believe that the subspecific names should be included with the common names for the more scientifically oriented readers. This is all the more important when one considers the fact that common names for subspecies often vary with locality.

Notes of Interest

Bald Eagle-Osprey Status Report, 1968 — Bald Eagle and Osprey nesting populations of the Chippewa National Forest have been evaluated for the sixth consecutive year. Since we were able to use an airplane for both Bald Eagle and Osprey observations, our data are more complete than for any previous year. The Osprey flights were made possible through the excellent cooperation of the Bureau of Sport Fisheries and Wildlife.

The nests were observed twice from the air. The first check, during the incubation period, indicated if the nest was occupied. The second check of previously occupied nests showed if young were present. In no case were incubating birds unduly alarmed by the aircraft, and only one or two flushed from the nest.

BALD EAGLE

New Nests and Nest Losses — Twelve eagle nests were added to the records since the 1967 report. Five had blown down or were considered permanently abandoned, which brings the total known nests on the Forest to 142. About 20 nests are known to have blown down on the Chippewa since 1963. In no case has a nest replacement been noted in proximity to the destroyed nests.

Nesting Success — The eagle flights were made on April 18 and June 24, requiring about 14 hours flying time in a Cessna 180. One hundred and five nests were observed from the air. Fifty two, or 49%, were considered to be active (occupied by at least one adult). This is the lowest rate of occupancy recorded on the Chippewa, the average for the previous five years being 69%. It was obvious that many eagle pairs did not attempt to nest this year. Many nests that were consistently active in previous years were vacant in 1968. Of the 52 occupied nests, 33 or 63% were successful in rearing young. This is the highest nesting success ever recorded on the Chippewa. An estimated 64 eaglets were produced compared to 76 last year. Two nests containing unhatched eggs were observed. Table 1 shows nesting data for each Ranger District. Table 2 compares nesting data for the past 6 years.

TABLE 1
BALD EAGLE NESTING DATA, 1968

District	Known Nests	Observed Nests	Active Nests	Successful Nests	Number of Young
Bena	37	26	14	7	11
Blackduck	11	9	6	5	11
Walker	14	12	4	4	7
Remer	8	4	3	2	3
Marcell	10	7	4	3	3
Cass Lake	36	25	12	7	9
Cut Foot Sioux.....	26	22	9	5	6
FOREST TOTAL	142	105	52	33	50
Percent		74%	49%	63%	1.5/nest
PROJECTED FOREST TOTAL.....			69	43	64

TABLE 2
COMPARISON OF BALD EAGLE NESTING DATA, 1963-1968

Year	Known	Observed	Active Nests*		Successful Nests		Young Per
	Nests	Nests	No.	%	No.	%	Nest
1963	48	31	20	64	6	30	1.7
1964	55	46	30	65	12	40	1.2
1965	76	58	39	67	22	56	1.3
1966	107	70	52	74	19	61	1.5
1967	135	67	49	73	21	55	1.4
1968	142	105	52	49	33	63	1.5

*Only active nests with known outcome were used for calculating nesting success.

Estimating productivity on the basis of individual nests is not entirely accurate because many eagle pairs have two or more nest sites. A more accurate appraisal of reproduction would be possible if the territory of each pair was used instead of individual nests. In some cases alternate nest sites are fairly obvious, but in other cases the "territory" is difficult to define. Since we still do not know the location of all nests on the Chippewa, the territory method also has inherent error. In any case, the trend from year to year is the important point, and so long as methods are consistent, it matters little.

Analysis of our data indicates about 93 known eagle territories (or eagle pairs) on the Chippewa. Seventy-one of these were checked in 1968. Fifty-one, or 72% were active, and thirty-six or 70% were successful in raising young.

Other Observations — For the first time we have fairly reliable evidence of the wintering area of Chippewa eagles. Mr. Frank Ligas of the National Audubon Society trapped and color-marked wintering eagles in Union County, Illinois. Four reports of color-marked eagles on the Chippewa were received during the first part of April. Five nestlings were banded by Dr. Al Grewe and a student assistant.

OSPREY

New Nests and Nest Losses — Twenty-one new Osprey nests were found since the 1967 survey. Eight had blown down since last observed, bringing the total number of known Osprey nests on the Chippewa to 73. There are undoubtedly many more Osprey nests to be located. They are difficult to find compared to Bald Eagle nests and their preference for dead trees makes an up-to-date inventory exceedingly difficult because they are prone to wind destruction.

Nesting Success — The Osprey survey was flown on May 28th and June 3rd for the occupancy check, and July 18 and 19 for the reproduction check. The survey required 12 hours of flying time in a Cessna 206, furnished by the Bureau of Sports Fisheries and Wildlife, Refuge Division.

This was the first time an intensive effort was made to evaluate Osprey nesting

success on the Chippewa. We encountered great difficulty in locating nests from the air. Some we never did find from the air which were subsequently checked from the ground.

Young were about half-grown at the time of the second check and additional losses may have occurred from wind storm after the survey was completed. One adult was still incubating an egg on July 19, which was probably infertile. Unattended and presumably infertile eggs were observed in another nest.

Table 3 shows the results of the Osprey survey.

TABLE 3
RESULTS OF OSPREY SURVEY, 1968

Known Nests	Observed Nests	Active Nests		Successful Nests		No. of Young	Young Per Nest
		No.	%	No.	%		
73	56	40	71	13	32	19	1.5

Although a large proportion of the Osprey nests were occupied (71%), the success rate was quite low (32%). Seven of the unsuccessful nesting attempts were a result of blowdown, but the other twenty were from unknown causes. Projection of these data to include all of the 73 nests indicate only 25 young Ospreys were produced in 1968. *John E. Mathisen, Chippewa National Forest, Cass Lake, Minnesota.*

Second Record for a Rosy Finch in Minnesota — The following information is extracted from several letters received from Mr. Richard C. Davids of Philadelphia, Pennsylvania, a former resident of Bagley, Minnesota, and Mr. Glenn Dexter of Bagley, Minnesota.

The first Rosy Finch appeared at the feeder of Mr. Dexter sometime in late December 1967, the exact date is unknown. A second bird appeared several weeks later. Mr. Dexter described the first bird as having a "definite gray crown, rather a dull, brownish color (over the body) with very little indication of any pink on the wings." The second bird was described as having more definite markings, "the crown exceptionally well outlined, the dark brown breast and some tendency toward pink on the wings." When Mr. Davids visited the Bagley area during February 1968, he observed one of the birds at a feeder at his family home. The following is his account. "The bird appeared at my feeder about February 2, 1968, and was seen periodically during February. It appeared with Evening Grosbeaks, among the flock of grosbeaks the Rosy Finch was noticeably smaller, and much more erect. The scale like feathers of the breast were quite distinctive, the gray crown and black patch above the bill were unmistakable. The wing bars were quite noticeable. I could see no hint of rosiness but must admit that I am color blind to red-green. Notice that Glenn Dexter noticed the rosiness." Another point of identification Mr. Davids noticed while using Robbins, Bruun and Zim, *Birds of North America* was that his specimen "had a definite black spot below the bill, just as the illustration of the gray-headed race in that book, but the gray (head) patch was exactly like the male gray-crowned. The over all body color was duller than either individual." Mr. Dexter further reported that the birds remained in Bagley till about March 21, 1968. Mr. Davids submitted a very poor dark photograph of the bird taken at his feeder. Dr. Breckenridge and I examined the photo and concurred that the bird was a Rosy Finch but we could not distinguish, from the photo alone, whether the bird was a Black Rosy Finch or a Gray-Crowned Rosy Finch.

The head pattern is similar in both species and this was the only plumage character that we were able to see on the photo. The Black Rosy Finch being a very dark bird in all plumages and from Mr. Davids and Mr. Dexter's written description, in conjunction with the photo, would lead one to believe the birds were Gray-crowned Rosy Finches. The only other record for this species in the state is that of a male bird shot from a flock of Snow Buntings near Minneapolis on January 3, 1889! *Robert B. Janssen, 1817 W. 59th Street, Minneapolis, Minnesota.*

Minnesota Nesting of White Pelicans — It seems strange that so much rumor and uncertainty surrounds our Minnesota nesting "records" of such a huge conspicuous ground-nesting bird as the White Pelican. Evidently the last authentic record of actual nests of this species reported in the state was in Grant County on the western edge of Minnesota in 1878. Later in 1904 two quarter grown birds identified as White Pelicans by Mr. Albert Lano in Aitkin County were shot by a hunter (Roberts: *Birds of Minnesota*). Numerous other possible records exist but nearly all are based on summer observations of feeding flocks. Since these birds travel long distances to feed and flocks of non-breeding birds occur these records are very dubious. I recall talking with a game warden 15 or 20 years ago who described what could have been pelican nests in Lac Qui Parle Co.

In a letter dated June 17, 1968, State Game Biologist Robert Benson stationed at Glenwood, Minnesota, reported White Pelicans nesting on the Lac Qui Parle game refuge which includes wide expanses of the waters of the Minnesota River backed up by dams between Montevideo and Ortonville. On July 2 I visited the refuge and with the help of Mr. Arlin Anderson, Refuge Manager, I located the colony situated on an island of perhaps 2 or 3 acres. According to Mr. Anderson Great Blue Herons and Double-crested Cormorants had nested on the island for many



years but this was the first time he knew of White Pelicans nesting there. Formerly tree covered, the island this year had only a dozen dead or nearly dead trees occupied by numerous Double-crested Cormorant and Great Blue Herons nests. Tall weeds covered about half the ground and a large area was apparently kept bare by the nesting activities of about 25 pairs of White Pelicans and a few cormorants. Benson had estimated 65 to 75 White Pelican nests early in June. Some apparently deserted pelican eggs were scattered about and an accurate count of active nests was nearly impossible. In addition to the White Pelicans I estimated the colony included 30 to 40 pairs of Great Blue Herons, 50 pairs of Double-crested Cormorants and 6 pairs of Black-crowned Night Herons. Benson had found 6 Mallard nests on the island during the spring. On the date of our visit several pelicans were incubating eggs while some had young the size of an adult Mallard. Most of the cormorant eggs were hatched while some nests contained nearly adult-sized young. Most of the young Great Blue Herons were nearly grown. *W. J. Breckenridge, James Ford Bell Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*

An Incomplete Albino Brown-Headed Cowbird — While observing birds in a flooded pasture, 2½ miles south of Saint James, Watonwan County, I observed an abnormally colored Brown-headed Cowbird, feeding with a flock of about 75 other cowbirds. With a 20X scope, I was able to observe the bird, in good light, from a distance of 25 yards for three minutes before it flew away. Color comparisons with other cowbirds feeding nearby were also made. The bird proved to be an incomplete albino according to the terminology of Pettingill (1961, *A laboratory and field manual of ornithology*, p. 143). The bill, feet and iris were black while the head, back, underparts and remiges were a uniform "dirty" cream color. The

rectrices were also cream with a band of gray in the medial ones. According to Pettingill (*loc. cit.*), incomplete albinism is one of the less common types of albinism. *Dennis M. Forsythe, Minnesota Division of Game and Fish, Game Research Center, Madelia, Minnesota.*

Mockingbird in Onamia, Mille Lacs County — On October 4, 1968 at 5 p.m. close to my house in Onamia I spotted a bird that at first looked like a shrike, but without a black mask and somewhat more slender. At first the bird was sitting on a small post, then moved to the ground and later into a tree. Through my binoculars, Hensold 6x30, I could see well all the details of the bird from all sides and identify it as a Mockingbird.

The bird was grey above, white below. Two white wingbars and some more white along the edge of the wings. Black tail with white edges. Bill slender, about like that of a Brown Thrasher, but shorter and a little straighter. In flight it showed much white in the wings and tail. *Michael Ivanovs, P.O. Box 105, Onamia, Minn.*

Black Rail seen in Anoka County — My brother Mark and I were canoeing along the north-northeast shore of Martin Lake (Northeastern Anoka County, T34N, R22W, Section 33) the evening of August 14, 1968 at approximately 7:45 p.m. Suddenly Mark asked me, "What kind of a rail is that?" There stood a Black Rail in adult plumage on a dead branch which reached into the water. The rail was no more than 10 feet from Mark and 13 feet from me. We canoed closer and the rail quickly darted into the background of sedge and dogwood. I attempted to pursue it, but it would not flush.

We were certain that this was a Black Rail in adult plumage, as we were able to see the white spots on its back, since we were so close and the rail stood sufficiently long. Moreover, we are quite familiar with rails, since I am studying their behavior for my thesis, and my brother has been by field assistant. My experience includes nearly 1000 hours of observation of breeding Soras and Virginia Rails, both wild and captive. *Jerry Kaufman, Route 1, Bethel, Minnesota.*

Burrowing Owl in Watonwan County — On August 26, 1968, Edward Hessler and James Schultz were checking marked Ring-necked Pheasants in Section 30 of Fieldon Township, Watonwan County. They observed a small owl standing on the township road. Lacking binoculars, they drove closer to get a better view of the owl but it flew away into the adjoining field. They noted, however, that the owl lacked ears, seemed to stand above the ground a bit, and was about the size of a Screech Owl. They both were sure they had seen a Burrowing Owl. *Earl D. Kopischke, Game Research Center, Madelia, Minnesota.*

Instinctive Response to Danger by Pheasants — Most birds have distinct responses to predators. Many of these responses are instinctive or natural impulses. Roger N. Johnson and I witnessed such a response by pen-reared juvenile Ring-necked Pheasants. The pheasants had been kept in pens since they had hatched. We released the 11-week-old cock pheasants in Fieldon Township, Watonwan County, to study mortality of marked juvenile pheasants. At each release site, ten birds had only aluminum leg bands while ten others were equipped with "fake" radio transmitters.

On September 11, 1968, we had just released the marked pheasants in a sedge-meadow pasture. As Roger sat on the truck watching a radio-marked pheasant walking about 100 feet away along a weedy fenceline, I was watching 8 or 9 banded pheasants looking over their new environment. Suddenly a Red-tailed Hawk swooped down at the radio-marked bird being watched. Since the pheasant was under some fallen woven-wire fence at the time, the hawk failed to catch it. The pheasants I was watching promptly squatted and remained motionless in the grass. They remained motionless for several minutes even after the hawk left the immediate area. This instinctive behavior kept the pheasants from being killed by a flying predator which they had never before encountered. *Earl D. Kopischke, Madelia, Minnesota.*

BOOK REVIEWS

THE PICTORIAL ENCYCLOPEDIA OF BIRDS by J. Hanzak, edited by Bruce Campbell. Crown Publishers, Inc. 582 pages, 45 color plates + 1075 black-and-white plates = 1120 total. 1967. \$10.00.

The foreword by Bruce Campbell is a well-written discussion of classification and nomenclature. An eight-page introduction skims lightly over fossil birds, evolution, anatomy, physiology, feather-structure, embryology, behavior and distribution. The remainder of the book is virtually all photographs, save for scattered paragraphs of text accompanying the photos. All 27 orders, from *Apterygiformes* through *Passeriformes*, are treated, dealing with slightly less than 130 families from all over the world.

The author has done an outstanding job of literally scouring the world's photographic resources for pictures of species in their natural habitats — a memory-staggering total of nearly 1,000 species. Some of the photographs were obviously taken under poor light conditions, but on the whole they are fairly good. Some which I thought stood out above the others were the Black-throated Loon, Great Frigate-bird (color), Northern Gannet, Common Goldeneye duckling leaving nest-hole, Crowned Crane (color), Stone Curlew, Cuban Parrot (color), Barn Owl (color), Green Woodpecker (color), Brazilian Cardinal (color) and Gouldian Finch (color).

Unfortunately, the North American Wood Warblers, favorites with most birders, received minimal coverage, as did my favorites, the North American seed-eaters. Considering what this book offers, I feel that it is a pictorial survey or review, rather than a pictorial encyclopedia. The birder who already has most of the available popular literature may not object to the price-tag on this book, but for my own personal library, there are a number of other fine volumes that would certainly take precedence over this one for the same price or less. The author has perhaps undertaken too large and broad a task with this volume, sacrificing quality for quantity in selecting the photographs. *Ronald L. Huber, 480 State Office Bldg., St. Paul, Minnesota 55101.*

COMBINATION LIST FOR BIRDS OF NORTH AMERICA and TRAVELERS LIST AND CHECK LIST FOR BIRDS OF NORTH AMERICA by James A. Tucker, The Academy Press, Box 157, Maitland, Florida. 1966.

Here are two items which the traveling and record keeping bird watcher will find most useful. It is the hope of any editor, of a magazine such as "The Loon", that his readers will keep records of the birds they see. These two publications will make record keeping much easier. The COMBINATION LIST is specially bound and contains a species list for all North American birds north of the Mexican border. Spaces are provided for Life List data, including date and location, year lists (enough spaces for 22 years!) Migration Data including early and late spring and fall dates and most interesting 50 columns for State Lists. Space is also provided for additional species and other information. This makes for a convenient location for all your lists and at a retail price of only \$2.00, it is a real bargain. The TRAVELER'S LIST is a small pamphlet, again containing all North American species in check list order. Each species name is followed by eleven columns which can be used for different trips or different areas visited on the same trip. Also included are an index space for a chronological trip list and rates, at 35¢ each or three for \$1.00, this is also a real bargain.

—Editor

M.O.U. ENDOWMENT FUND CAMPAIGN

With this issue of *The Loon*, you will receive a letter asking for a contribution to the Minnesota Ornithologist's Union Endowment Fund. The principal of this fund will be held in trust; while the income will be available to aid Minnesota birds and birding on a continuing basis.

This is the second step towards creating a fund which will enable the M.O.U. to undertake and support larger and longer range birds projects. The many requests for program aid and project support that the Endowment Fund has already received, indicate that the need is great. Please send in your 1968 contribution to the Minnesota Endowment Fund now. It is one of the best ways you can help future birding in Minnesota.

L. S. Ryan, Chairman

SUGGESTIONS TO AUTHORS

As you all know the editor's job is a voluntary one and to make this job a little easier and less time-consuming I would like to make a few suggestions to authors when they submit articles and notes for publication in *The Loon*.

As editor I would like to encourage people to send articles, notes and observations to me. If possible all articles and notes should be typewritten and double spaced on one side of the paper. This is the only way they can be submitted to the printer. The more material received the better the magazine will be. When submitting observations of birds, either rare, accidental, or difficult to identify please try and follow the suggestions made by Janet C. Green in her article "What Constitutes an Acceptable Bird Record," (*The Loon*. Vol. 36, No. 1, pages 4-6). If photos are submitted with articles they should be clear, *black and white prints*. If the author of an article would like reprints please let me know when the article is submitted. Reprints will be furnished at the author's expense. Cost of reprints depends on length of article and number wanted.

CHECK-LIST OF MINNESOTA BIRDS

The newly revised check-list of Minnesota birds is still available. This list contains 292 regular species and 23 casual species found in Minnesota. It is designed for use in the field and can be easily contained in any of the latest "Field Guides." The cost is 5¢ each plus 5¢ postage, or 50 for \$1.25 plus 15¢ postage. All members of the M.O.U. and their bird-watching friends should be using this new list.

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The
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CONTENTS

The Loon Cry	107
Obituary	108
Roberts Award	108
Breeding Success of Osprey in Minnesota from 1963 to 1968	
Thomas C. Dunstan	109
Book Review	112
Identification of Bald Eagle and Osprey Nests in Minnesota	
John E. Mathisen	113
A Camera Research Apparatus for In- vestigating Nests of Cavity or Canopy Nesting Birds	
Thomas C. Dunstan	115
The Summer Season	
Ronald L. Huber	118
Notes of Interest	131
Book Review	135
Index to Volume 40	136



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COVER:

*Osprey, photo
by Fred Leshner.*

PURPOSE OF THE M.O.U.

The Minnesota Ornithologists Union is an organization of both professionals and amateurs interested in birds. We foster the study of birds, we aim to create and increase public interest in birds and 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 M.O.U. officers wish to point out to those interested in bird conservation that any or all phases of the M.O.U. program could be expanded significantly with gifts, memorials or bequests willed to the organization.

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THE LOON CRY

Mountains out of mole hills concluded: Two issues ago in a discussion of how the Prothonotary Warbler got its name, the word "beautifications" was used. In the last "Loon Cry," it was clarified that the twelve papal secretaries were in charge of "beatifications," not "beautifications." But in the clarifying examples, "beautification" again erroneously became the practice of a religion. The clause should read, ". . . beatification is the practice of a religion, . . .".

This is the last "Loon Cry" I will write, and I have enjoyed writing each one. In addition to my editorial responsibilities, I have had good luck in selecting committee chairmen. Heather Huber has provided in the "Newsletter" general ornithological news as well as important announcements to members. Nominations have been tactfully and in large part successfully sought by Jack Hofslund. Bob Janssen's imaginative efforts as publication chairman and editor of "The Loon" have produced articles of technical as well as general interest, along with stimulating changes in format. By next summer, Jo Blanich, membership chairman, will have in circulation throughout the state a membership brochure, advertising the MOU. Mrs. Swedenborg has supervised the selection of outstanding persons to receive the Roberts Award in 1966 and 1968. And those of you who send in seasonal reports know how Jan Green, research and records chairman, has kept you supplied with the proper report form at the correct time.

I speak like a politician now, but "during my administration", two vital committees have been created. Wally Jiracek has coordinated with local clubs our winter, spring, and fall field trips. In an organization spread throughout the state, selection of sites for field trips, organization of the trip, and announcement of the trip in advance are difficult jobs. The field trip chairman has helped do these jobs, but the committee is a new one, and there is need for improvement. Also, we have yet to hold a June camp out, which the board supports and some members have suggested.

The endowment fund committee, in one campaign and half of a second, has collected about \$1250.00. Pete Ryan has managed this job like a professional. Consequently we are endowed, and Bill Bryson, education chairman, has the happy task of selecting a young person to receive a \$50.00 MOU scholarship to the Long Lake Conservation Camp in 1969. We also are now in a position to begin to think about land acquisition with the interest from the endowment fund. This may seem too ambitious, but tax delinquent lands are available in vital bird habitat, and there is also the possibility that we can add our contribution to those of other groups.

Bob Turner provided two stimulating December meetings. We all appreciate his efforts, and look forward to his leadership as president.

To my fellow officers—Ben Thoma, Jan Green, Liz Campbell, Bob Janssen, and Ron Huber, I say a warm thank you. It has been gratifying to know and work with each of you.

The membership of the MOU includes young and old, amateur and professional, sentimentalist and scientist, bird watching fanatic and general conservationist. It's a marvel that persons of such divergent interests ever get anything done. We have accomplished much, but we can do more. Discussion of the resolutions at the December meeting indicates the need for a resolutions committee to formulate intelligent resolutions. Income from book sales would substantially add to our treasury, and enable us to print a four color cover on "The Loon" occasionally, but there is no book sales committee. Whether these jobs will be done depends on whether someone can assume the jobs as a means of furthering the study of birds, which is what the MOU is all about.

Best Wishes for the New Year

Fred Lester

OBITUARY



DR. NELSON W. BARKER - 1899-1968

Dr. Nelson W. Barker, 69, retired Mayo Clinic Physician, who despite being blind for the past 10 years, gained recognition as an authority in horticulture and ornithology, died on August 21, 1968 in St. Mary's Hospital, Rochester, of head injuries suffered in a fall at home.

Dr. Barker had retired as head of a Mayo Clinic section of medicine in 1964, but had remained active in his hobbies of recording bird calls and raising prize dahlias.

Dr. Barker was well known to M.O.U. members thru the publication of "Bird Songs of Southeastern Minnesota" which he and his wife Florence co-authored. The book and its related records contained the voices of over 100 species of birds found in southeastern Minnesota. He and Mrs. Barker traveled thousands of miles in the area to record these bird songs. He was scheduled to be a speaker at the recent M.O.U. paper session held on December 7, 1968. Dr. Barker had informed our program chairman, Mr. Bob Turner, that he was going to bring recordings of birds unusual to Minnesota bird-watchers such as Puffins, Murres and northern thrushes. All those who attended the meeting would certainly have enjoyed hearing these recordings.

Dr. Barker will be greatly missed by all of those interested in Minnesota birds and especially those whose lives he enriched with his bird recordings.

Roberts Award to Brother Theodore

The 1968 Thomas Sadler Roberts award, for outstanding contributions to Minnesota ornithology, was given to Brother Theodore Voelker of Winona. The award was presented at the annual meeting of the Minnesota Ornithologists' Union held on the campus of the University of Minnesota on December 7, 1968. The award was part of the evening banquet held at Coffman Memorial Union, after an all day paper session and meeting at the James Ford Bell Museum of Natural History.

Many Minnesota bird-watchers are acquainted with Brother Theodore and his enthusiasm for and dedication to the study of Minnesota birds. His discovery of the first Yellow-crowned Night Heron breeding area in the state and observations of Bell's Vireos and Henslow Sparrows are well known accomplishments.



His most recent unusual record for the state, of a European Widgeon, is recorded in this issue of *The Loon*. In the past ten years he has recorded well over 250 species of birds in the state annually. He contributes articles and columns on birds to the Winona area newspapers. He is presently at St. Mary's College in Winona working in the Biology Department classifying bird skins.

The M.O.U. congratulates Brother Theodore on this award and wishes him many more years of bird-watching experiences.

BREEDING SUCCESS OF OSPREY IN MINNESOTA FROM 1963 TO 1968

Thomas C. Dunstan

Introduction

In 1963 this author began a study of Osprey in Minnesota placing emphasis on breeding behavior, population dynamics, and breeding ecology. This study is presently being continued. A thesis titled *A Study of Osprey in Itasca County, Minnesota* was submitted in partial fulfillment of the requirements for the M.A. Degree at the University of South Dakota (Dunstan, 1967). In 1963 relatively few nest locations were known with the exception of those located along telephone or power lines, or near farms and resorts. The tedious task of locating nesting sites was begun using aerial and ground surveys and by talking with resort owners, trappers, guides, and private pilots.

Also in 1963 the U.S. Forest Service recorded Osprey nest locations while surveying Minnesota's Bald Eagle population in the national forests (Mathisen, 1967). In 1968 they began an intensive survey of the breeding status of Osprey within the Chippewa National Forest.

In 1966 and 1967 a three-state survey of Osprey populations was undertaken by various cooperating organizations in Minnesota, Michigan, and Wisconsin. This study was centralized through the North Central Audubon Council and is presently being continued in Wisconsin and Michigan.

This paper summarizes and brings known information concerning the nesting of Osprey in Minnesota up-to-date by incorporating data produced by this author, the U.S. Forest Service, North Central Audubon Council, Minnesota Ornithologists' Union, and private individual studies and observations undertaken or reported since 1963 and judged as accurate by this author.

Nests

The Osprey nests in Minnesota are constructed of dead sticks, grasses and sedges, and lichens all of which are picked from the ground, or broken or picked while in flight from standing trees. (Dunstan, 1967). Nests have been found built in the following places: (1) on the apex of entirely dead trees (Fig. 1), (2) on the apex of living trees with dead upper portions (Fig. 2), (3) on double crossbars of telephone or power line poles (Fig. 3), and (4) less frequently in entirely living trees which in these cases closely resemble the nesting sites of the Bald Eagle. Several cases of Osprey moving into unoccupied Bald Eagle nests have been recorded in Minnesota.

Locating Nest Sites

Nests were located by the following methods: (1) by the use of airplanes flying grid patterns, (2) by ground surveys conducted from watercraft, (3) by surveys of lakes and streams conducted from watercraft, (4) by road surveys conducted from an automobile. Inquiries were also made of local residents with emphasis placed on resort owners, trappers, guides, and private pilots. Each method had its advantages and all were necessary for an efficient survey. Aerial surveys are rapid, enable the investigator to cover a large area in a short period of time, and enable the investigator to identify and count nestlings as young as two or three weeks of age. Disadvantages of aerial surveys are that egg counts are difficult and the investigator cannot comfortably remain in the area of the nest for long periods of time in order to check for dead or fledged young, or for adult birds that may at that moment be fishing nearby. Ground surveys by foot and automobile are time consuming and some nests are difficult to

locate after the foliage appears in spring. During ground surveys examination of the nest contents is difficult due to the unclimable condition of most of the supporting structures. In 1968 a camera apparatus was developed and incorporated by this investigator (Dunstan, 1968) and did provide accurate egg and nestling counts when used. In the past accurate egg counts have been the most difficult problem of the surveys in Minnesota and are quite essential for a full understanding of breeding success. Travel by watercraft is confined to waterways and a trend has been noted indicating that in recent years nest sites are being built further away from lake and river shorelines as compared to the locations of nests five or ten years ago (Dunstan, 1967). Inquiries of the general public gave varied results and were in general helpful. Nesting sites have been recorded in the following 16 counties in Minnesota: Aitkin, Becker, Beltrami, Big Stone, Cass, Clearwater, Cook, Crow Wing, Hubbard, Itasca, Koochiching, Lake, Lake of the Woods, Mahnommen, Pine, and St. Louis.

Survey Time

Surveys for nest locations in Minnesota are best made in early April and May before the foliage appears. Surveys of eggs present is a critical factor and must be done with the utmost care so as to avoid chilling or overheating the eggs, destroying the nest or causing abandonment of the nest by the adult birds. May 15th has been the most favorable date for egg counts. Most eggs are laid several weeks prior to this date and by 15 May the adult birds are possessive and defensive of the eggs. Nestling counts are made around 15 July and

at this time the young birds are approximately six weeks old, relatively hardy and the female is not sitting as tightly to the nest as she is just after hatching.

Trend of the Minnesota Population

Each year newly built nests, or old nests are discovered. Along with the increase in the number of known nests is the destruction of previously recorded nests by wind. At present the destruction of active nests by strong winds is one of two significant factors causing a decrease in Minnesota's Osprey productivity. An average of 3.5 nests per year are blown down between the first of each year (Table 1). Records for the past six years indicate that man is also a significant factor in reduced productivity and has caused chilling or overheating of eggs and death of adult birds by shooting (Dunstan, 1967). During the period from 1963-1968, two adult birds were killed (one by shooting and one by electrocution), one nestling was electrocuted, four eggs were chilled due to molesting by man, and nine eggs were destroyed because of high winds blowing down active nests. The significance of pesticides as a mortality factor is yet unknown in the Minnesota population. Studies by Ames (1966) and Ames and Mersereau (1964) on pesticide content in eggs, nestlings, and prey items of Osprey, and the 1965 Wisconsin Conservation Department study (from Ingram, 1966) done on pesticide residues in fish from Wisconsin lakes which are actively fished by Osprey indicate the possible detrimental role of these substances in relation to Osprey success.

Table 1 summarizes the data to date concerning Osprey nesting success in Minnesota.

TABLE 1. Osprey Nesting Success in Minnesota from 1963-1968

Year	Known Nests	Observed Nests	Active No.	Nests %	Successful No.	Nests %	No. of Young	Brood Size	Blowdowns
1963	16	16	14	87.50	14	100.00	21	1.50	1
1964	21	15	13	86.66	13	100.00	22	1.69	0
1965	29	15	15	100.00	14	93.33	23*	1.64	1**
1966	58	23	22	95.65	19	86.36	25	1.35	3
1967	119	98	60	61.22	36	60.00	59	1.64	8***
1968	132	107	79	73.83	50	63.29	81	1.62	8****

* not including one electrocuted nestling

** active

*** five active

**** seven active

The average brood size for the six-year period was 1.58 young produced per successful nest. This average is lower than that reported by Postupalsky (1968) for the Wisconsin and Michigan studies which showed that the average brood size for Wisconsin during 1966 and 1967 was 1.78, and for Michigan from 1965-1967 was 1.73 young per successful nest. Ingram (1967) reported a brood success of 1.61 for Minnesota during 1967 based on 31 successful nests out of 55 active nests. Mathisen (1968) reported a brood success of 1.5 young for 13 successful nests out of 40 active nests in the Chippewa National Forest for 1968. The previously mentioned data for the state of Minnesota has been incorporated into Table 1.

When interpreting Table 1, one should keep in mind the small sample sizes for 1963 and 1964. Many of these nests were located because of their close proximity to inhabited areas and were of particular interest to the many tourists visiting the area. Their annual activity and success was the reason for the locations of these nests being known and, therefore, can be considered as a source of bias when evaluating nesting success over the six-year period. Table 1 does indicate a steady decrease in the number of successful nests in Minnesota.

Further study on Minnesota's Osprey

population is needed with special emphasis on the number of eggs laid and the number of successful nests. The study of the Osprey population in Minnesota is rapidly becoming scientific. Local, state, and federal agencies are becoming increasingly interested about and aware of the biological significance of this important bird of prey. With increased study of migration patterns, food analysis, effects of pesticides, and breeding and wintering biology, this bird may very well prove to be an indicator of its future in, and of the state of Minnesota.



Fig. 2. Osprey nest on apex of dead portion of a 70 foot White Pine in Itasca County, Minnesota.



Fig. 1. Osprey nest on apex of a dead, 55 foot Red Pine in Itasca County, Minnesota.

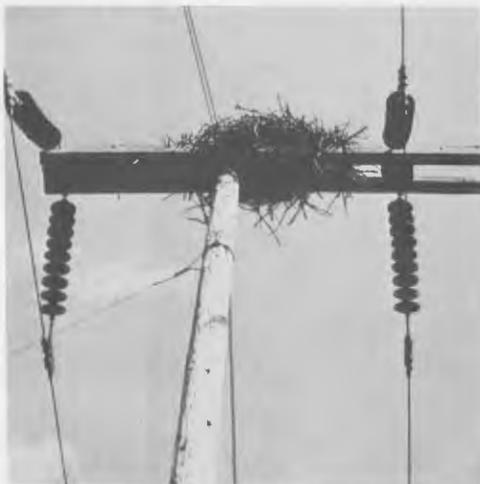


Fig. 3. Osprey nest on double crossbar of a power line support in Aitkin County, Minnesota. Nest is 38 feet above the ground.

The author wishes to acknowledge the helpful cooperation of the following individuals and organization: Dr. Byron E. Harrell, Mr. John E. Mathisen, Mr. Raymond St. Ores and Mr. John Winship-U.S. Bureau of Fish and Wildlife, Rex and Louis Kastner, Mr. Jerome J. Janeck, Dr. William H. Marshall, Mr. Bruce Adams, Mr. Terrence N. Ingram, the Minnesota Ornithologists' Union, and the North Central Audubon Council.

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Department of Zoology, University of South Dakota, Vermillion, South Dakota.

WATERFOWL: Their Biology and Natural History by Paul A. Johnsgard. University of Nebraska Press, Lincoln, Nebraska. 138 pages, 148 photographs, 59 in color. 1968. \$8.95.

The author states that this book is an attempt to bring together a series of photographs of all, or practically all, the species of living waterfowl. The photographs in the book illustrate adults of one or both sexes during typical activities or in breeding plumage. This work is a companion volume to Kortwright's *The Ducks, Geese and Swans of North America* and Delacour's *The Waterfowl of the World* but is arranged by topic rather than species as are the above two volumes. **WATERFOWL** stresses waterfowl biology and behavior rather than details of plumage, distribution and anatomical measurements. The photographs, whether done in black and white or color are very good. The reproduction is excellent. The pictures were taken by the author mostly of captive birds at the Wildfowl Trust in England. Sections treated in the book include distribution, migration, ecology, behavior, vocalization, breeding, molts, evolution and hybridization as well as a very interesting essay on the future of waterfowl. Also included are an identification key and an annotated list of the waterfowl of the world.

IDENTIFICATION OF BALD EAGLE AND OSPREY NESTS IN MINNESOTA

John E. Mathisen

In the course of Bald Eagle and Osprey studies on the Chippewa National Forest we are often confronted with the problem of properly identifying the nests of these species when adults are absent. I have found that most people in this area of Minnesota are unable to distinguish an eagle nest from an Osprey nest. Indeed, there have been several cases where trained biologists, including myself, made only tentative identification until the adults could be observed at the nest.

I have observed over 150 eagle nests and about 100 Osprey nests on the Chippewa Forest in the past six years. I have found five basic differences between the nests of these two raptors. Although each of the differences may not apply for every

nest, if they are considered as a group a nest will almost always be identified properly. The factors are tree species, condition of tree, timber type, location of nest in tree, and size and shape of the nest.

Tree Species. Bald Eagles and Ospreys differ in their preference for nest trees, although there is some over-lap (Table 1). Almost 80 percent of Chippewa eagles have selected either red or white pine for nest trees. The remainder are in aspen and a few other hardwood species. Ospreys, on the other hand, prefer spruce or tamarack, and nest in pine or hardwoods much less frequently. I know of no eagle nests in lowland conifer species, but Ospreys are commonly found there.

Table 1. Comparison of tree species selected as nest sites by Bald Eagles and Ospreys.

	Pine *		Aspen		Lowland Conifer **		Other	
	No.	%	No.	%	No.	%		%
Bald Eagle	122	78	26	17	--	--	8	5
Osprey	13	18	6	8	49	68	4	6

* Red and white pine.

** Mostly black spruce and tamarack.

Timber Type. Most Bald Eagle nests are in the upland timber types, while Osprey are most frequently found in lowland types, such as black spruce and tamarack stands. Eagles are usually associated with large water areas, but Ospreys commonly nest near small potholes or beaver ponds and tend to nest farther from open water than Bald Eagles.

Condition of Tree. Tree condition seems to be a good diagnostic feature. Eagles almost always nest in live trees, although

the top or crown may be dead. Of 156 eagle nests observed, only three were in completely dead trees. Osprey, however, definitely prefer a dead tree or snag. Fully 80 percent of Osprey nests I have seen were in dead trees.

Location in Tree. The placement of the nest in the tree is also a good identification feature. An eagle nest is almost always located below the crown at a main branch. Usually some cover is afforded the nest from above. A typical Osprey nest, by contrast, is located at the extreme tip of the

Table 2. Some comparative features of Bald Eagle and Osprey nests on the Chippewa National Forest.

Characteristic	Bald Eagle	Osprey
Tree Species	Red or white pine	Spruce, Tamarack
Condition of Tree	Alive (sometimes top dead)	Dead
Timber Type	Upland	Lowland conifer
Location in Tree	Below crown	At top (perched)
Size and Shape of Nest	Large, cone-shaped	Smaller, rounder

Figure 1. Typical Bald Eagle nest on the Chippewa National Forest



tree with little or no cover over the nest. One often wonders how the Osprey nest survives at all.

Size and Shape of Nest. The final criteria, and the most difficult to describe, is the nest itself. Although there is considerable over-lap, eagle nests tend to be larger than Osprey nests and they tend to be flat-topped and somewhat cone-shaped. The Osprey nest is more rounded and often

Figure 2. Typical Osprey nest on the Chippewa National Forest



appears to be in poor repair. The sticks are not as neatly placed as in the eagle nest.

A Summary of these nest features is presented in Table 2. Typical nests of the Bald Eagle and Osprey on the Chippewa National Forest are shown in Figures 1 and 2. While these criteria may not apply throughout the breeding range of the species, they should assist in identifying unoccupied nests in Minnesota and other states in the Great Lakes region.

Chippewa National Forest, Cass Lake, Minn.

A CAMERA RESEARCH APPARATUS FOR INVESTIGATING NESTS OF CAVITY OR CANOPY NESTING BIRDS

Thomas C. Dunstan

Introduction

A camera research apparatus was developed as a research tool to aid in determining the number of eggs and the number and size of nestlings in nests of four birds of prey (Bald Eagle, Osprey, Great Horned Owl, and Red-tailed Hawk) that commonly nest in cavities of trees or in inaccessible portions of trees and, therefore, cannot be examined from the ground or near vicinity.

Description

A Polaroid Swinger camera was mounted on a 5 foot section of aluminum tubing by means of a sheet iron carriage that surrounds the camera from the back, top, and bottom (Fig. 1). The carriage is attached to the tubing by means of a 3 inch steel strap hinge and four bolts. Two plumber's straps are used to hold the camera in the carriage and a metal trigger mechanism (Fig. 2), which extends from the top of the carriage to the shutter release button, is triggered manually from the ground.

Materials

The carriage is cut from 28 gauge galvanized sheet iron into the shape shown in Figure 2. Eight 1/8 inch holes are drilled in the carriage at positions shown (Fig. 2) through which seven bolts are placed. An eight inch piece of 40 pound test Steelon leader material is passed from the trigger arm through the indicated trip cord hole and attached to a nylon cord which extends to the investigator when the apparatus is in the upright position enabling the camera to be tripped manually from the ground. Two folds are made to shape the carriage around the camera and a third fold on the top section provides an upright structure for support of the trigger arm. Trigger arm is shaped from 24 gauge sheet iron. At the proximal end of the arm a piece of 26

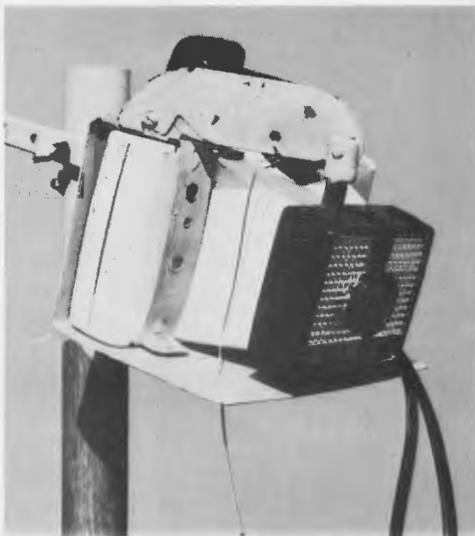


Figure 1. Polaroid Swinger camera mounted in carriage and attached to tubing section.

gauge sheet iron is brazed to the arm allowing space between the piece and the arm for the upright support on the carriage. A 1/2 inch bolt is passed through the hole indicated and secures the arm to the carriage allowing the arm to move in a vertical direction. At the distal end of the trigger arm a round iron rod 1/2 inch in diameter, hollowed out to fit over the shutter release button, is attached to the arm by means of a 1/8 inch groove and a metal pin. The hollow is 5/16 inch in diameter and fits securely over the shutter release button. The trip cord is attached to the hole as indicated in Figure 2.

A seven inch pipe strap is secured to the upper surface of the bottom of the carriage by a 1/2 inch bolt which passes through the hole closest the trip cord hole. The strap is shaped to fit the contour of the camera and

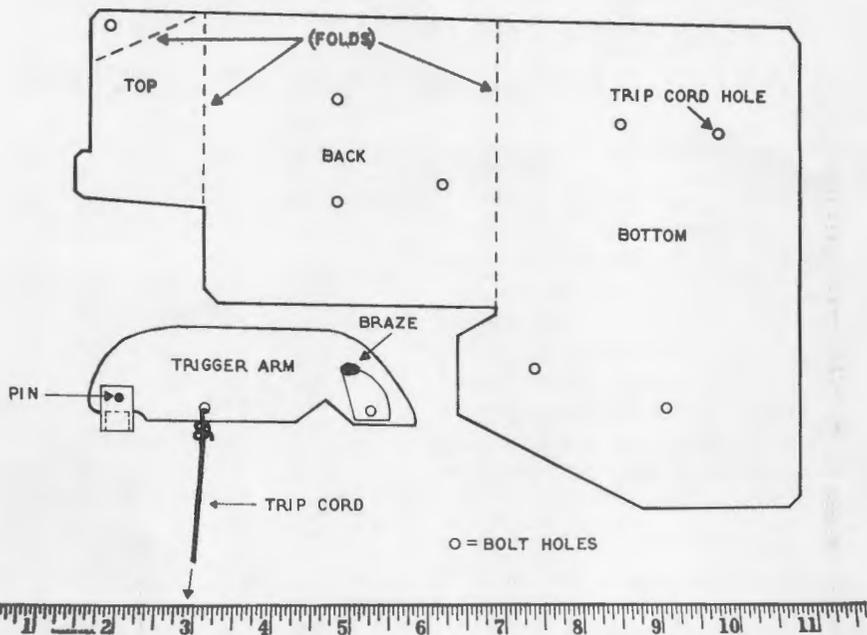


Figure 2. Carriage diagram (upper) and trigger arm (lower left). Scale in inches.

the unattached end is secured to the outside of the back by a 1/2 inch bolt which passes through the hole closest the word "folds" in Figure 2. Superimposed over this bolt is a 1-1/2 inch piece of 26 gauge sheet iron bent at right angles which provides an attachment point for the inclination adjustment supporting bar. The supporting bar is of light steel, six inches long, with six holes drilled 1 inch apart beginning 1/4 inch from the end attached to the carriage. The bar is attached to the bolt which is secured to the tube section by a nut. A wing nut holds the bar in contact with the nut. A 1/2 inch bolt secures the bar to the piece at carriage. A 12 inch piece of pipe strap is shaped to pass over the top of the camera at the end where the film is pulled out and both ends are attached to the remaining holes in the bottom of the carriage by 1/2 inch bolts. The end of the strap extending from the front to the back is attached below the bottom of the carriage and the opposite end is attached on top of the bottom.

A three inch strap hinge is attached to the two remaining holes in the back of the

carriage by 1/2 inch bolts and the other half of the hinge is attached to the tube section by two 1-1/2 inch bolts. The camera and carriage can be tilted to the desired angle. Any number of sections of tubing can be slipped together depending on the height desired. The tube sections commonly used to support bird mist nets will allow one to reach a height of 35 feet without excessive swaying and larger sections of heavier metal have allowed this investigator to photograph nest contents 60 feet high.

Discussion and Conclusions

The Polaroid Swinger camera was selected because (1) it gives one an immediate picture which can be examined and properly labeled, (2) it needs only simple light adjustment and no critical focusing, (3) it is relatively light in weight for a Polaroid, (4) it has a built-in flash unit which can be inserted into cavities and also increases the work day to 24 hours, (5) it is relatively inexpensive (list price \$19.95) not creating a great financial loss if dropped into the water or broken, and (6) the pictures are

Figure 3. A photocopy of a Polaroid print (enlarged) showing contents of a Bald Eagle nest in Itasca County, Minnesota. Nest was 58 feet high in a living red pine tree. Two nestlings present.

Figure 4. A photocopy of a Polaroid print (enlarged) taken using flash unit at sundown showing the inner bowl and nest contents of $\frac{1}{2}$ of an Osprey nest located 40 feet high on the apex of a dead, green ash tree Itasca County, Minnesota. Nest inactive in 1968.



Figure 5. A photocopy of a Polaroid print (enlarged) taken down into a hollow tree using the flash unit showing two Great Horned Owl nestlings and one rabbit leg. Nest site was 32 feet high in a dead, cottonwood tree Clay County, South Dakota.



Figure 6. A photocopy of a Polaroid print (enlarged) showing contents of a Red-tailed Hawk nest located 49 feet high in a cottonwood tree Clay County, South Dakota. Feathers, fur, and an egg shell can be seen.



large enough and of good enough quality to enable the investigator to count eggs or nestlings.

The apparatus was used on Bald Eagle (Fig. 3), Osprey (Fig. 4), Great Horned Owl (Fig. 5), and Red-tailed Hawk (Fig. 6) nests. Use of the apparatus (1) allowed the investigator to reach and view indirectly the contents of nests located at the apex of dead trees, in or on small unclimbable branches, and in cavities, (2) minimized disturbance of incubating birds, (3) lessened the chance of fatally chilling or overheating the eggs or nestlings, (4) eliminated chance of destroying the nest and contents, (5) minimized the chance of attack from the defending bird, and (6) eliminated the chance of the investigator falling from the tree. The tube sections can be assembled quickly. Adequate pictures can be taken from the ground, and windy days or tripping the camera does not cause unusable pictures due to excessive motion. This apparatus was born of necessity and has solved a previously annual problem in population studies.

Acknowledgements

The author wishes to acknowledge the assistance of Mr. Wendell Shouse in working with the metal, the suggestions of Dr. Byron Harrell, and the financial support of the Department of Zoology, University of South Dakota.

Department of Zoology, University of South Dakota, Vermillion, South Dakota

Editors Note: The "Polaroid Big Swinger", a new model, gives a larger picture and can be used satisfactorily with the carriage by adjusting the plumbers straps.

June 1 to Aug. 31, 1968. Although June was a rather damp month, July and August were drier than normal. Except for a few mid-summer heat spells, the summer was milder than usual. The very cool spring, followed by cooler-than-usual June temperatures, produced an almost mosquito-free situation during early summer, which was a true blessing for those of us who spent numerous weekends up in the northern acid-bog country. Although early August brought on some scorching days near the 100 degree mark, mid-August recorded some new all-time low temperatures down to within a few degrees of freezing. Perhaps due to these unusual climatic happenings, there were some early fall waterfowl movements and it almost seemed that a few of the passerine birds couldn't remember if they were late spring migrants heading north or early fall migrants heading north or early fall migrants heading south. Requests for details on these unusual observations have been sent to various contributors. Unquestionably, the highlight of the season was the nesting colony of White Pelicans discovered out in Lac Qui Parle County.

Common Loon: nested in Crow Wing, Hubbard, Beltrami, Wright and Itasca Co's; also reported from Morrison, Lyon, Hennepin, Becker, Lake, Clearwater, St. Louis, Isanti, Cass, Sherburne, Cook, Washington, Anoka and Mille Lacs Co's.

Red-necked Grebe: nested in Wright, Clearwater, Todd and Hubbard Co's; also reported from Cass Co.

Horned Grebe: 7-18(2), 7-29(11) Hovland, 7-29(5) Grand Marais, Cook Co., JCG.

Eared Grebe: 8-5 Rice Lake, Clearwater Co., RBP; 8-29 Mille Lacs Lake, Mille Lacs Co., RBJ.

Western Grebe: 6-18 Pelican Lk., Grant Co., 1, NMH; 6-19 Platte Lk, Crow Wing Co., ELC (see Notes of Interest in previous issue).

Pied-billed Grebe: nested in Hubbard & Clearwater Co.; Also reported from Carver, McLeod, Lyon, Morrison, Washington, Blue Earth, Carlton, Nobles, Swift, Sherburne, Crow Wing, Anoka, Wright, Beltrami, Rice, Hennepin, Roseau, Winona Co's.

White Pelican: 6-10(8), 7-24(90), 7-28(225) Agassiz Refuge, Marshall Co., AWR; 8-15 Lake Ocheda, Nobles Co., 35, HSH; biggest news of the season is the nesting colony found in June at Lac Qui Parle Game Refuge by refuge personnel. At least 50 nests were found, containing eggs or young or both. Colony also included Double-crested Cormorants and Great Blue Herons.

Double-crested Cormorant: nested in Lac Qui Parle, Marshall Co's; also reported from Becker, Hubbard, Grant Co's.

Great Blue Heron: nested in Lac Qui Parle, Mille Lacs, LeSeur, Grant, Hubbard, Rice, Itasca, Morrison and Clearwater Co's; also reported from Swift, Jackson, Nobles, Beltrami, Meeker, Sibley, McLeod, Becker, Morrison, Pope, Lake, Washington, Blue Earth, Carlton, St. Louis, Crow Wing, Anoka, Sherburne, Wright, Cook, Hennepin, Winona Co's.

Green Heron: nested in Lyon (PE), Stearns Co's; also reported from Jackson, Sibley, Goodhue, Hubbard (FN/MAS), Morrison (LSR), Pope (WH, JAH), Wright, Pine (BL), Winona, Washington, Wabasha, Crow Wing (MSB), Anoka, Mille Lacs, Hennepin, Clay (EGA) Co's; number of northerly reports is noteworthy.

Common Egret: nested in Grant (NMH) and Leseur Co's (RBJ) also reported from Wabasha, Swift, Marshall, Douglas, Pope, Washington, Houston, Winona Co's.

Black-crowned Night Heron: nested in Grant Co (NMH); reported from Pine (MIG), Lyon, Meeker, Jackson, Wilkin, Washington, Anoka, Cottonwood, Hennepin Co's.

Yellow-crowned Night Heron: 8-16 La-Crescent, Houston Co, 1, VL; only report.

Least Bittern: nested in Wright, Hubbard (TCD) Co's; also reported from Houston Co.

American Bittern: nested in Hubbard Co; also reported from Wilkin, Swift, Mille Lacs, Clearwater, Cass, Morrison, Lake, Washington, Carlton, Crow Wing, Anoka, Cook, Hennepin, Mille Lacs, Roseau Co's.

Canada Goose: nested in Marshall Co; also reported from Sherburne, McLeod, Roseau, Yellow Medicine Co's.

Mallard: nested in Marshall, St. Louis, Carver, Cook, Sherburne, Mille Lacs, Anoka, Clearwater Co's; also reported from Crow Wing, Carlton, Pine, Hennepin, Nobles, Wabasha, Swift, Jackson, Beltrami, McLeod, Lyon, Morrison, Pope, Washington, Blue Earth, Lake, Cottonwood, Wright, Winona, Rice, Clay Co's.

Black Duck: nested in Cook Co; also reported from Lake, Marshall Co's; early fall migrants, 8-25 Hennepin Co, 4, VL and 8-29 Anoka Co, WHL.

Gadwall: reported only from Marshall (TCD) and Roseau (GES) Co's.

Pintail: reported from Marshall, Nobles, Jackson, Sibley, Lyon, Blue Earth Co's.

Green-winged Teal: reported from Clearwater, Roseau Co's; unusual southerly record, 6-16 to 6-26 near Cottonwood, Lyon Co., 3 males remained together at same spot for several weeks, PE; early fall migrant, 8028 Anoka Co., WHL.

Blue-winged Teal: nested in Stevens, Mille Lacs, Clearwater, Stearns, Anoka Co's; also reported from Marshall, Wabasha, Nobles, Jackson, Beltrami, McLeod, Carver, Becker, Mahnomen, Lyon, Morrison, Pope, Washington, Blue Earth, Todd, Cottonwood, Wright, Hennepin, Rice, Roseau Co's.

American Widgeon: late spring migrants, 6-2 Lake Auburn, Carver Co, 1, RBJ, 6-4 Mille Lacs Lk, 4 males, NMH; breeding 7-31 Grand Lake, Stearns Co, female + 5 small y, NMH; early fall migrant, 8-25 Hennepin Co., 1, VL.

EUROPEAN WIDGEON: 6-4 Mille Lacs Lk, 1 male with 4 male American Widgeons, NMH.

Shoveler: reported only from Carver, Beltrami, Roseau Co's.

Wood Duck: nested in Jackson, Anoka, Carver, Stearns, Mille Lacs, Clearwater Co's; also reported from Yellow Medicine, Carlton, Hennepin, Itasca, Nobles, Becker, Morrison, Washington, Blue Earth, Lake (JCG), Winona Co's; apparently continuing to spread northward.

Redhead: nested in Lyon Co, 36 on Grass Lake, Minneapolis, 7-12, RBJ, also reported from Carver, McLeod, Todd, Anoka, Hennepin, Wright Co's.

Ring-necked Duck: nested in Clearwater, Isanti, Stearns (6-3 St. Joseph, 13y, NMH) Co's; also reported from Hubbard, Sherburne, Becker, Mahnomen, Cook, Anoka, Wright Co's.

Canvasback: nested in Lac Qui Parle Co; also reported from Roseau Co.

Lesser Scaup: 6-1 to 7-25, Rosemount, Dakota Co, 1 ad male, Bruce A. Hitman; 6-2 White Bear Lake, Ramsey Co, MIG; 6-4 Assumption, Carver Co, 3, FN/MAS; 6-16 Park Rapids, Hubbard Co, 4, FB/MAS; 6-16 to 6-26 Cottonwood, Lyon Co, 1 male, 2 females, PE; 6-27 Roseau Refuge, Roseau Co, GES.

Scaup, species ?: all summer, Minneapolis, 1 male; eclipse plumage noted in Aug; last seen 8-26, VL.

Common Goldeneye: nested in Cook, Hubbard, St. Louis Co's; also reported from Beltrami Co.

Bufflehead: early fall migrant, 8-29 Olmsted Co, HBW.

White-winged Scoter: 6-3 Duluth, St. Louis Co, 11, JCG; late spring migrants.

Surf Scoter: 6-1 Burlington Bay, Lake Co, 4, EHH; late spring migrants.

Ruddy Duck: nested in Lac Qui Parle Co; also reported from Hubbard, Carver, McLeod, Lyon, Swift, Anoka, Wright, Hennepin, Clay Co's.

Hooded Merganser: nested in Hubbard Co; also reported from Anoka, Cook, Lyon (PE) Co's.

Common Merganser: 6-4 Maniwaki Lk, Lake Co, 1 male, 2 females, JAH; 6-7 Seagull Lk, Cook Co, NMH; 8-10 Farm Lake, Lake Co, 9y about 3/4 grown, JCG.

Red-breasted Merganser: nested Lake, Cook Co's; also reported from St. Louis Co; 6-4 near Hennepin Island, Mille Lacs Lake, 1 female, NMH.

Turkey Vulture: reported from Itasca, Carlton, Cass, St. Louis, Lake, Winona Co's.

Goshawk: 7-10 Carlton Co, 2y, GWG.

Sharp-shinned Hawk: reported from Hubbard, Beltrami, Cook Co's.

Cooper's Hawk: reported from Carlton, Morrison, Beltrami, Anoka Co's.

Red-tailed Hawk: nested in Anoka Co; also reported from Pope, Hubbard, Hennepin, Yellow Medicine, Crow Wing, Sherburne, Morrison, Washington, Blue Earth, Lake, Rice, Clearwater, Mille Lacs, Winona Co's.

Red-shouldered Hawk: reported from Hennepin (FN/MAS), Anoka (WHL), Winona (BT,GD) Co's.

Broad-winged Hawk: nested in Beltrami Co; also reported from Carlton, Hubbard, Lake, Pine, Crow Wing, Morrison, Washington, Hennepin, Cook, Anoka, Mille Lacs Co's.

Swainson's Hawk: 7-17 Lake Belle Taine, near Nevis, Hubbard Co, nest with 3y, attended by 2ad, good details, LWJ.

Bald Eagle: nested in Itasca, Beltrami, St. Louis, Lake Co's; also reported from Hubbard, Clearwater Co's; 6-19 Anoka Co, WHL, apparently late spring migrant.

Marsh Hawk: reported from Carlton, Clay, Nobles, Crow Wing, Pine, Morrison, Washington, Cottonwood, Cook, Anoka, Rice, Wright, Mille Lacs Co's.

Osprey: nested in Cook, Beltrami, Mille Lacs, Hubbard Co's; also reported from Itasca, Becker, Crow Wing Co's; 8-28 Anoka Co, early fall migrant, CLH.

Pigeon Hawk: 7-23 Grand Portage, Cook Co, JCG.

Sparrow Hawk: reported from Cottonwood, Clearwater, St. Louis, Wabasha, Lake, Carlton, Carver, Lyon, Nobles, Wright, Crow Wing, Pine, Morrison, Washington, Blue Earth, Koochiching, Cook, Anoka, Rice, Hennepin, Mille Lacs, Winona Co's.

Spruce Grouse: 6-3 Lake Co, 1 female near spruce bog, JAH.

Ruffed Grouse: nested in Anoka, Washington, Cook, Lake, Isanti, Clearwater, Mille Lacs Co's; also reported from Carlton, Crow Wing, Morrison, Pine, Itasca Co's.

Sharp-tailed Grouse: 6-1 Clay Co, 2, DB.

Ring-necked Pheasant: nested in Hennepin, Rice, Anoka Co's; also reported from Grant, Blue Earth, Washington, Morrison, Nobles, Lyon, Cottonwood, Pope, Winona Co's.

Gray Partridge: reported from Nobles, Rice, Blue Earth Co's.

Sandhill Crane: 7-5 Royalton, Morrison Co, 2, S.J. Grittner *vide* NMH; Anoka Co, Carlos Avery Refuge, female returned again to mate with captive male, but nest not found - may have been flooded, WHL.

Virginia Rail: Nested in Clearwater Co (LWJ); also reported from Anoka, Morrison, Hennepin, Wright Co's.

Sora: nested in Isanti Co; also reported from Morrison, Anoka, Beltrami, Hubbard, Clearwater, Washington, Pine, Crow Wing, Hennepin, Carlton, Wabasha, Mille Lacs, Wright, Winona Co's.

Yellow Rail: 6-3 Becker Co, at usual spot 4 mi. S. Waubun, 1 seen, several heard,

EHH; 6-8 Becker/Mahnomen Co Line, just W. of usual spot, 3 heard, Dr. Jean Piatt.

Common Gallinule: 6-7 LaCrescent, Houston Co, 3, DB; 7-28 Young America, Carver Co, 2 ad + 6y, DB; 8-11 La-Crescent, Houston Co, 1, VL.

American Coot: nested in Jackson Co; also reported from Hennepin, Todd, Anoka, Nobles, Sherburne, Hubbard, Lake, Crow Wing, Carver, Lyon, McLeod, Carlton, Winona Co's.

Semipalmated Plover: 6-2 Marshall Co, GES; 7-20 Wilkin Co, DB; 7-22, 8-2, 8-14, Clay Co, *vide* EGA; 8-5 Clearwater Co, RBP.

Piping Plover: 6-1 Duluth, St. Louis Co, DB, EHH; 6-2 Lake Auburn, Carver Co, RBJ.

Killdeer: nested in Cook, Mille Lacs, Kanabec Co's; also reported from Meeker, Morrison, Anoka, Nobles, Rice, Blue Earth, Lake, Cottonwood, Pope, Sherburne, Clearwater, Washington, St. Louis, Carver, Lyon, Sibley, McLeod, Carlton, Stevens, Wabasha, Hennepin, Wright, Winona Co's.

Ruddy Turnstone: 6-4 Mille Lacs Lk, NMH; 7-30 Marshall Co, AWR.

American Woodcock: nested in Mille Lacs, Hubbard, Lake, Aitkin Co's; also reported from Carlton, Cook, Crow Wing, Anoka Co's.

Common Snipe: reported from Morrison, Lake, Clearwater, Chisago, Carlton, Pine, Hubbard, Mille Lacs Co's.

Upland Plover: reported from Morrison, Swift, Nobles, Clay Co's and on 6-28 and 7-11, Hibbing, St. Louis County HM.

Spotted Sandpiper: nested in Lake Co; also reported from Nobles, McLeod, Goodhue, St. Louis, Cook, Lyon, Morrison, Wilkin, Anoka, Ramsey, Sherburne, Carlton, Cottonwood, Clearwater, Wabasha, Dakota, Carver, Wright, Mille Lacs, Co's.

Solitary Sandpiper: 6-30 Anoka Co, WHL; 7-4 Mahnomen Co, JCG; 7-4(2), 7-6(6) Dakota Co, VL; 7-11 Goodhue and Dakota Co's, FN/MAS; 7-22, 7-24, 8-7

Clay Co, *vide* EGA; 7-8 Hennepin Co, KP; 7-28 Carver Co, DB; 8-6, 8-11 Mille Lacs Co, MIV; 8-7, 8-11, 8-29 Anoka Co, WHL; 8-16, 8-25 Wright Co, GES.

Willet: 7-7 Salt Lake, Lac Qui Parle Co, 1, RLH; 8-4 Grand Forks, North Dakota, 1, RLH; 8-23 Albertville, Wright Co, 1, GES.

Greater Yellowlegs: 6-30 Anoka Co, WHL; 7-22 Marshall Co, AWR; 7-18, 8-7, 8-14 Clay Co, *vide* EGA; 8-7 Anoka Co, WHL.

Lesser Yellowlegs: 7-4, 7-6 Dakota Co, VL; 7-18, 7-22, 8-15 Clay Co, *vide* EGA; 7-22 Marshall Co, AWR; 7-28 Carver Co, DB; 8-17 Roseau Co, GES; no date, Morrison Co, LSR.

Yellowlegs, species ?: 7-11 Goodhue Co, FN/MAS.

Pectoral Sandpiper: 6-17 to 6-25 Lyon Co, PE; 7-20 Wilkin Co, DB 7-18, 7-24, 8-6, 8-14 Clay Co, *vide* EGA; 7-28 Carver Co, DB; 8-25 Wright Co, GES.

White-rumped Sandpiper: 8-17 Roseau Co, 1, GES; 8-23 Wright Co, GES.

Baird's Sandpiper: 7-18, 7-24, 8-15 Clay Co, *vide* EGA; 8-17 Roseau Co, GES; 8-20, 8-23 Wright Co, GES.

Least Sandpiper: 7-4, 7-6 Dakota Co, VL; 7-20 Wilkin Co, DB; 8-17 Roseau Co, GES; 8-25 Wright Co, GES; 7-22, 8-7 Clay Co, *vide* EGA.

Dowitcher, species ?: 7-6 Dakota Co, VL; 7-24, 8-14 Clay Co, *vide* EGA; 7-28 Carver Co, DB; 8-23 Wright Co, GES.

Stilt Sandpiper: 7-23 Clay Co, *vide* EGA; 7-28 Carver Co, DB; 8-25 Wright Co, GES.

Semipalmated Sandpiper: 6-3 Stearns Co, NMH; 6-17 to 6-28 Lyon Co, PE; 7-6 Dakota Co, VL; 7-22, 8-6, 8-14 Clay Co, *vide* EGA; 7-28 Carver Co, DB; 8-23 Wright Co, GES.

Marbled Godwit: reported from Becker, Mahnomen, Clay, Norman Co's; also 7-6 Swift Co, HSH, perhaps early fall migrant?

Sanderling: 7-11 Goodhue Co, FN/MAS.

American Avocet: 6-22 Salt Lake, Lac Qui Parle Co, 1, PE.

Wilson's Phalarope: 6-3 Grand Lk, Stearns Co, 3 pr, NMH; 6-22 Salt Lk, Lac Qui Parle Co, 8, PE; 6-26 Royalton, Morrison Co, 2 pr, NMH; 6-27 Roseau Refuge, Roseau Co, GES; 7-4 Waubun, Mahnomen Co, JCG; 7-28 Gotha, Carver Co, 1, DB; 7-22, 8-2, 8-14, Moorhead, Clay Co, *vide* EGA.

Herring Gull: nested at Mille Lacs Lk, NMH; also reported from Lyon, Lake, Clay, Cook, St. Louis, Nobles, Washington, Pope, Carlton, Crow Wing Co's.

Ring-billed Gull: 6-4 Mille Lacs Lake, 89 nests! (most had 3 eggs, NMH); also reported from Nobles, Sibley, Cook, Hennepin, Wright, Clay Co's.

Franklin's Gull: nested in Todd, Clearwater Co's; also reported from Nobles, Sibley, Lyon, Beltrami (GES), Clay, Roseau, Pope, Carver, Douglas Co's.

Bonaparte's Gull: 6-4 Mille Lacs Lake, 1, NMH.

Forster's Tern: nested in Clearwater, Todd Co's; also reported from Nobles, Lyon, Wright, Hennepin Co's.

Common Tern: nested at Mille Lacs Lake; also reported from Beltrami, Lyon (PE), Morrison (LSR), Wright (KP), Anoka (MIG), Blue Earth (EDK), Pope (WH), Wabasha (DGM), Crow Wing, Clearwater, Cass, Roseau Co's; the more southerly and westerly records may result from confusion with Forster's Tern?

Caspian Tern: 8-11 Grass Lake, Mpls., 1, RBJ.

Black Tern: nested in Mille Lacs, Isanti, Lyon Co's; also reported from Morrison, Nobles, Hennepin, Marshall, Meeker, Anoka, Sherburne, Carlton, Pine, Blue Earth, Rice, Cottonwood, Beltrami, Clearwater, Pope, Itasca, Washington, Carver, Crow Wing, Wabasha, Wright, Winona, Clay Co's.

Mourning Dove: nested in Swift, Morrison, Mille Lacs, Anoka, Lyon Co's; also reported from Stearns, Nobles, Itasca, Aitkin, St. Louis, Hennepin, Sherburne, Pine, Carlton,

Blue Earth, Rice, Cottonwood, Clearwater, Beltrami, Pope, Itasca, Washington, Stevens, Wabasha, Crow Wing, Wright, Winona Co's.

Yellow-billed Cuckoo: reported from Washington, Rice, Anoka, Wright, Hennepin, Morrison, Lake (JCG), Winona Co's.

Black-billed Cuckoo: reported from Stearns, Morrison, Hennepin, Wabasha, McLeod, Anoka, Rice, Washington, Swift, Murray, Carlton, Pine, Pope, Clearwater, Itasca, Crow Wing, Hubbard, Mille Lacs, Wright, Winona Co's.

Screech Owl: nested in Ramsey Co, 3 young, ELC, also reported from Hennepin, Stearns, Rice, Washington, Nobles Co's.

Great Horned Owl: nested in Olmsted, Washington, Stevens, Traverse, Mille Lacs, Beltrami Co's; also reported from Lyon, Rice, Blue Earth, Anoka, Washington, Crow Wing, Clearwater, Sherburne, Wright Co's.

Barred Owl: nested in Itasca Co; also reported from Anoka, Morrison, Wabasha, St. Louis, Washington, Crow Wing Co's.

Whip-poor-will: reported only from Winona, Pine and Beltrami Co's.

Common Nighthawk: nested in Stearns Co; also reported from Itasca, Morrison, Lyon, Wabasha, Lake, Beltrami, Cook, Hennepin, Anoka, Rice, Washington, Nobles, Carlton, Hubbard, Crow Wing, Winona Co's.

Chimney Swift: reported from Morrison, Wabasha, Lyon, Blue Earth, Carver, Stevens, Cottonwood, Lake, St. Louis, Hennepin, Rice, Washington, Nobles, Swift, Carlton, Hubbard, Crow Wing, Ramsey, Winona, Mille Lacs Co's.

Ruby-throated Hummingbird: nested in Mille Lacs Co; reported also from Stearns, Clearwater, Morrison, Wabasha, Hennepin, Brown, Beltrami, Anoka, Washington, Crow Wing, Nobles, Carlton, Pope, Goodhue, Hubbard, Cook, Winona Co's.

Belted Kingfisher: nested in Clearwater Co; also reported from Stearns, Morrison, Wabasha, Lyon, Blue Earth, Carver, Lake, Cottonwood, Beltrami, Lake, St. Louis,

Hennepin, Anoka, Rice, Washington, Swift, Carlton, Pope, Crow Wing, Hubbard, Mille Lacs, Wright, Winona Co's.

Yellow-shafted Flicker: nested in Nobles, Cook, St. Louis, Morrison, Lyon, Mille Lacs, Goodhue Co's; also reported from Itasca, Wabasha, Blue Earth, Beltrami, Carver, Stevens, Cottonwood, Lake, Hennepin, Anoka, Rice, Washington, Nobles, Carlton, Pine, Pope, Crow Wing, Hubbard, Wright, Winona, Co's.

Pileated Woodpecker: reported from Cook, Clearwater, Beltrami, Lake, Anoka, Rice, Washington, Carlton, Crow Wing, Winona Co's.

Red-bellied Woodpecker: reported from Stearns, Wabasha, Hennepin, Anoka, Rice, Washington, Winona Co's.

Red-headed Woodpecker: nested in Mille Lacs, Hennepin Co's; also reported from Stearns, Nobles, Jackson, Itasca, Morrison, Wabasha, Lyon, Blue Earth, Carver, Beltrami, Cottonwood, St. Louis, Anoka, Rice, Washington, Crow Wing, Pine, Sherburne, Wright, Winona Co's.

Yellow-bellied Sapsucker: nested in Mille Lacs, Cook, Clearwater Co's; also reported from Lake, Beltrami, Anoka, Rice, Carlton, Crow Wing, Becker, Hubbard, Pine Co's.

Hairy Woodpecker: nested in Hubbard, Lake Co's; also reported from Cook, Swift, Clearwater, Morrison, Wabasha, Hennepin, Carver, Cottonwood, Beltrami, Anoka, Rice, Washington, Crow Wing, Pine, Mille Lacs, Wright, Winona Co's.

Downy Woodpecker: nested in Kanabec, Hennepin, Hubbard, Clearwater, Mille Lacs Co's; also reported from Cook, Swift, Nobles, Pope, Morrison, Wabasha, Carver, Cottonwood, Beltrami, St. Louis, Anoka, Rice, Washington, Carlton, Crow Wing, Wright, Winona Co's.

Black-backed Three-toed Woodpecker: 6-8 Seagull Lake, Cook Co, nest with noisy young being fed by adults, NMH.

NORTHERN THREE-TOED WOODPECKER: 6-8 Seagull Lake, Cook Co, 1 male, NMH.

Eastern Kingbird: nested in Lyon, Clay, Polk, Mille Lacs, Morrison, Clearwater Co's; also reported from Nobles, Wabasha, Blue Earth, Beltrami, Carver, Lake, Hennepin, Cottonwood, Anoka, Rice, Washington, Carlton, Pine, Pope, Hubbard, Crow Wing, Sibley, Mahnomen, Norman, Becker, Wright, Winona Co's.

Western Kingbird: nested in Jackson, Lyon, Polk, Morrison (NMH, ELC), Hubbard (LWJ) Co's; also reported from Isanti (JLS), Nobles, Swift, Douglas, Sherburne, Anoka, Pope, Clay, Norman, Becker, Rock, Lac Qui Parle Co's.

Great Crested Flycatcher: nested in Mille Lacs, Hubbard Co's; also reported from Marshall, Stearns, Nobles, Clearwater, Swift, Morrison, Wabasha, Yellow Medicine, Hennepin, Beltrami, Cottonwood, Lake, St. Louis, Anoka, Rice, Washington, Carlton, Pine, Crow Wing, Sibley, Goodhue, Becker, Sherburne, Wright, Winona Co's.

SCISSOR-TAILED FLYCATCHER: 6-14 Castle Danger, Lake Co, 1 imm photographed (or female ?), MEP, same place one was seen in 1965.

Eastern Phoebe: nested in Anoka, Clearwater, Mille Lacs, Hubbard, Benton Co's; also reported from Stearns, Morrison, Lake, Beltrami, Wright, Rice, Washington, Carlton, Pine, Crow Wing, Becker, Goodhue, Sherburne, Winona Co's.

Yellow-bellied Flycatcher: reported from Marshall, Pine, Lake, Clearwater, St. Louis Co's.

Traill's Flycatcher: reported from Marshall, Mahnomen, Pine, Cook, Lake, St. Louis, Clearwater, Stearns, Nobles, Morrison, Meeker, Anoka, Rice, Hubbard, Hennepin Co's.

ACADIAN FLYCATCHER: 6-2 Beaver Creek Valley State Park, Houston Co, FL, near last year's nesting site.

Least Flycatcher: reported from Morrison, Clearwater, Pine, St. Louis, Lake, Nobles, Beltrami, Cottonwood, Anoka, Rice, Washington, Carlton, Hubbard, Crow Wing, Goodhue, Hennepin, Mille Lacs, Wright, Winona Co's.

Eastern Wood Pewee: nested in Mille Lacs Co; also reported from Marshall, Clay, Stearns, Clearwater, St. Louis, Lake, Cook, Douglas, Nobles, Morrison, Wabasha, Beltrami, Hennepin, Anoka, Rice, Washington, Carlton, Hubbard, Crow Wing, Sherburne, Wright, Winona Co's.

Olive-sided Flycatcher: usual reports from Cook, Lake, St. Louis, Carlton, Pine Co's, plus several late spring migrants, 6-1 Mountain Lake, Cottonwood Co, LAF; 6-1 Minneapolis, VL, KP; 6-9 Fargo-Moorhead, *fide* EGA; two southerly midsummer reports (perhaps extremely early fall migrants?): 7-4 Cedar Creek Bog, Anoka Co, RLH and 7-11 VASA, Goodhue Co, FN/MAS; 8-29 Mille Lacs Co, MIV, fall migrant.

Horned Lark: nested in Beltrami Co; also reported from Stearns, Cottonwood, Nobles, Hubbard, Swift, Morrison, Wabasha, Lyon, Scott, Clay, Anoka, Rice, Pope, Winona, Hennepin Co's.

Tree Swallow: nested in Mille Lacs, Clearwater, Carlton, Anoka, Beltrami, Lyon, Cottonwood, Kanabec Co's; also reported from Wright, Sherburne, Stearns, Hennepin, Washington, Crow Wing, Hubbard, Lake, Carver, Clay, Norman, Becker, Goodhue, Stevens, St. Louis, Cook, Nobles, Morrison, Wabasha, Rice, Winona, Pope Co's.

Bank Swallow: nested in Cottonwood, Hubbard, Lake, Clearwater, Lyon, Rice, Swift, Anoka, Mille Lacs Co's; also reported from Stearns, Washington, Crow Wing, Sibley, Becker, Morrison, Clay, Hennepin, Wright, Winona Co's.

Rough-winged Swallow: nested in Lyon Co; also reported from Clearwater, Washington, Hubbard, Douglas, Cottonwood, Lake (JCG), Jackson, Morrison, Clay, Anoka, Rice, Pine, Winona Co's.

Barn Swallow: nested in Washington, Stearns, Lyon, Hubbard, Goodhue, Carver, Mille Lacs Co's; also reported from Clearwater, Wright, Blue Earth, Hennepin, Pine, Carlton, Clay, Norman, Becker, Pope, Cottonwood, St. Louis, Lake, Cook, Nobles, Swift, Morrison, Wabasha, Anoka, Rice, Sherburne, Winona Co's.

Cliff Swallow: nested in Mille Lacs, Pine, Clearwater, Cottonwood Co's; also reported from Beltrami, Stearns, Washington, Crow Wing, Hubbard, Lake, Carlton, St. Louis, Cook, Nobles, Swift, Jackson, Sherburne, Winona Co's.

Purple Martin: nested in Mille Lacs, Rice, Stearns, Lyon, Hubbard, Cottonwood Co's; also reported from Wright, Clearwater, Pine, Blue Earth, Washington, Crow Wing, Carlton, Sibley, Becker, Nobles, Morrison, Wabasha, Carver, Hennepin, Pope, Anoka, Winona Co's.

Gray Jay: 6-8 Seagull Lk, Cook Co, pr feeding 2y, NMH; 6-9 Iron Lk, Cook Co, pr feeding 2y, NMH; 6-2 to 6-4 Lake Co, ad & imm seen in 3 different places, JAH; also reported from St. Louis Co, DGM.

Blue Jay: nested in Lyon, Anoka, Mille Lacs, Hennepin, Nobles, Morrison, Clearwater Co's; reported also from Beltrami Stevens, Wabasha, St. Louis, Blue Earth, Pine, Washington, Crow Wing, Lake, Carlton, Cottonwood, Carver, Rice, Pope, Wright, Sherburne, Winona Co's.

Common Raven: reported from Cook, Lake, St. Louis, Carlton (GWG), Clearwater (TCD) Co's.

Common Crow: nested in Mille Lacs Co; also reported from Beltrami, Stearns, St. Louis, Lake, Carlton, Clearwater, Wabasha, Blue Earth, Hennepin, Pine, Washington, Crow Wing, Hubbard, Nobles, Morrison, Carver, Anoka, Rice, Pope, Sherburne, Winona Co's.

Black-capped Chickadee: nested in Mille Lacs, Lyon, Anoka, St. Louis, Hennepin Co's; also reported from Cook, Lake, Carlton, Clearwater, Beltrami, Stevens, Pine, Wabasha, Washington, Crow Wing, Hubbard, Cottonwood, Nobles, Morrison, Carver, Rice, Pope, Wright, Winona Co's.

Boreal Chickadee: reported from Lake, Cook, Carlton (GWG), Clearwater (TCD) Co's.

Tufted Titmouse: 6-21 Bloomington, Hennepin Co 1 ad + 1y at feeder, MEH; also reported from Winona, Rice, Chisago (WHL) Co's.

White-breasted Nuthatch: nested in Mille Lacs Co; also reported from Anoka, Hennepin, Rice, Stearns, Stevens, Clearwater,

Carlton, Beltrami, Wabasha, Washington, Crow Wing, Hubbard, Nobles, Morrison, Carver, Pine, Wright, Winona Co's.

Red-breasted Nuthatch: 6-26 Fargo-Moorhead, *vide* EGA, late spring migrant? usual reports from Cook, Lake, St. Louis, Carlton, Hubbard, Clearwater Co's; early fall migrants: 8-17 Lake Minnetonka, Hennepin Co, Mrs. C. M. Case, Jr.; 8-16, 8-25, 8-31 Anoka Co, WHL.

Brown Creeper: reported from Lake (JAH) and Carlton (GWG) Co's.

House Wren: nested in Winona, Mille Lacs, Hubbard, Anoka, Rice, Lyon, Cottonwood, Polk, Washington, Beltrami, Kanabec, Hennepin, St. Louis, Stearns Co's; also reported from Carlton, Lake, Clearwater, Wabasha, Blue Earth, Pine, Crow Wing, Nobles, Morrison, Carver, Pope, Sherburne, Cook, Wright Co's.

Winter Wren: reported from Lake, Cook, Carlton (GWG), Clearwater (TCD) Co's.

Long-billed Marsh Wren: nested in Todd Co; also reported from Meeker, Pine (MIG), Carver, Morrison, Swift, Cottonwood, Hennepin, Norman, Blue Earth, Lyon, Rice, Wabasha, Anoka, Mille Lacs, Wright Co's.

Short-billed Marsh Wren: nested in Clay, Clearwater, Mille Lacs Co's; also reported from Pine, Stearns, Morrison, Anoka, Sherburne, Red Lake, Becker, Mahnomen, Lyon, Rice, Lake (JCG), Hennepin, Wright Co's.

MOCKINGBIRD: first seen on 5-30, gathering nest material on 6-2, nest with 4e on 6-9, 4y hatched on 6-20, ad feeding y in nest on 6-24, nest empty on 7-5, Royalton, Morrison Co, NMH - first Minnesota nesting record;

Catbird: nested in Benton, Mille Lacs, Morrison, Rice, Lyon, Hubbard Co's; also reported from St. Louis, Lake, Cook, Anoka, Hennepin, Pine, Sherburne, Wabasha, Cottonwood, Swift, Carver, Carlton, Pope, Wright, Beltrami, Washington, Crow Wing, Winona Co's.

Brown Thrasher: nested in Polk, Nobles, Morrison, Rice, Lyon, Hubbard, Cottonwood, Mille Lacs Co's; also reported from Beltrami, Lake, Anoka, Hennepin, Pine,

Blue Earth, Wabasha, Carver, Carlton, Pope, Washington, Crow Wing, Wright, Winona Co's.

Robin: nested in Mille Lacs, Hubbard, Nobles, Anoka, Washington, Hennepin, Rice, Beltrami, Stearns, Lyon Co's; also reported from St. Louis, Lake, Cook, Pine, Sherburne, Wabasha, Blue Earth, Cottonwood, Morrison, Carver, Carlton, Stevens, Crow Wing, Pope, Wright, Winona Co's.

Wood Thrush: reported from Rice, Hennepin, Stearns (NMH), Chisago (WHL), Carlton (GWG), Crow Wing (MSB), St. Louis (JNG, JCG) Co's.

Hermit Thrush: reported from Cook, Lake, St. Louis, Carlton, Pine, Clearwater, Beltrami Co's.

Swainson's Thrush: 6-1 Cottonwood Co, LAF, late spring migrant; usual reports from St. Louis, Lake, Cook, Carlton, Itasca Co's; 7-18 Morrison Co, 1 banded, LSR, early fall migrant?

Gray-cheeked Thrush: 6-9 Fargo-Moorhead, *vide* EGA; late spring migrant.

Veery: nested in Cass, Hubbard, Clearwater Co's; also reported from Beltrami, Mille Lacs, Stearns, Cook, Lake, St. Louis, Anoka, Crow Wing, Carlton, Rice, Norman, Becker, Sherburne, Pine, Morrison Co's; southwesterly record, 6-1 Cottonwood Co, LAF, may have been late spring migrant?

Eastern Bluebird: nested in Mille Lacs, Winona, Cottonwood, Carver, Hubbard, Crow Wing, Rice, Sherburne Co's; also reported from Brown, Blue Earth, Stearns, Clearwater, Morrison, Pine, Pope, Washington, Hennepin, Anoka, Carlton, Wright, Wabasha, Lake (ME), Beltrami, Roseau Co's.

Golden-crowned Kinglet: nested at Iron Lake, Cook Co, NMH; also reported from Lake (JAH), JCG, Clearwater (TCD), Carlton (BL), Becker (FN/MAS) Co's.

Ruby-crowned Kinglet: 6-9 Iron Lake, Cook Co, nest with 9e, and 6-27 ad feeding y, NMH; also reported from Lake (JCG), Clearwater (TCD), Carlton (GWG) Co's; one heard at Hibbing, St. Louis Co on 6-28 HM.

Sprague's Pipit: 6-3 Clay Co, at usual spot SE of Felton, 1, EHH.

Cedar Waxwing: nested in Mille Lacs, Washington, Kanabec, Stearns, Anoka, Hubbard Co's; also reported from Carver, St. Louis, Lake, Cook, Clearwater, Pine, Morrison, Pope, Swift, Hennepin, Lyon, Carlton, Crow Wing, rice, Wabasha, Beltrami, Sherburne, Wright, Winona Co's.

Loggerhead Shrike: nested in Morrison Co; also reported from Scott, Isanti, Wright Co's.

Bell's Vireo: reported only from Wabasha (DB), Winona (BT,GD) Co's.

Yellow-throated Vireo: nested in Stearns, Hubbard Co's; also reported from Clay, Clearwater, Morrison, Anoka, Sherburne, Mille Lacs, Wright Co's.

Solitary Vireo: nested in Hubbard (LWJ) Co; also reported from Cook, Lake, St. Louis, Clearwater Co's; 6-2 St. Croix St. Pk., Pine Co, MIG, late migrant ?

Red-eyed Vireo: nested in Hubbard, Mille Lacs Co's; also reported from Stearns, Cook, Lake, St. Louis, Clearwater, Morrison, Pine, Hennepin, Washington, Lyon, Anoka, Crow Wing, Carlton, Rice, Wabasha, Beltrami, Wright, Winona Co's.

Philadelphia Vireo: 7-18, nest, 3 young, Crane Lake, St. Louis Co, Sheila, Cummingham, 8-17 Fox, Roseau Co, 1, GES; 8-26, 8-30 Sugar Lake, Wright Co, GES; early fall migrants.

Warbling Vireo: nested Hubbard, Mille Lacs Co's; also reported from Stearns, Beltrami, Clearwater, Morrison, Pine, Hennepin, Pope, Washington, Nobles, Lyon, Crow Wing, Anoka, Rice, Wabasha, Sherburne, Wright, Winona Co's.

Black-and-white Warbler: reported from Cook, Lake, Clearwater, Pine Co's; 8-16 Anoka Co, WHL; 8-30 Wright Co, GES; early fall migrants.

Prothonotary Warbler: 6-23, pair carrying food to nesting box, Hennepin Co, RBJ.

Golden-winged Warbler: nested in Mille Lacs, Hubbard Co's; also reported from Clearwater, Pine, Crow Wing, Carlton Co's.

Blue-winged Warbler: 7-9 Vasa, Goodhue Co, ad with y, VL; also reported from Winona Co.

Tennessee Warbler: 6-9 Marshall Co, AWR; 6-10 Fargo-Moorhead, *vide* EGA; late spring migrants; reported from Cook, Lake, St. Louis Co's; 6-24 Forest Lake, Washington Co, 2 ad + 1 y, WHL (!!); 7-18 Morrison Co, 8 banded, LSR, apparently early fall migrants; 7-31 Minneapolis, KWE; 8-16 Anoka Co, WHL; 8-30 Wright Co, GES, migrants.

Nashville Warbler: nested in Hubbard Co; also reported from Cook, Lake, St. Louis, Clearwater, Pine, Morrison, Chisago (WHL), Crow Wing Co's; 8-27 Anoka Co, WHL; 8-29 Mille Lacs Co, MIV; 8-30 Wright Co, GES; fall migrants.

Parula Warbler: nested in Hubbard Co; also reported from Cook, Lake, Itasca, Clearwater, Carlton Co's.

Yellow Warbler: nested in Polk, Wabasha, Wright, Clearwater, Hubbard, Mille Lacs Co's; also reported from St. Louis, Cook, Beltrami, Morrison, Goodhue, Hennepin, Pope, Washington, Douglas, Swift, Nobles, Lyon, Anoka, Crow Wing, Carlton, Sherburne, Winona Co's.

Magnolia Warbler: 6-4 Chisago Co, WHL, late spring migrant; reported from Cook, Lake, Hubbard (TCD) Co's; 8-27 Anoka Co, WHL, fall migrant.

Cape May Warbler: reported from Cook, Lake, Clearwater Co's; 8-30 Wright Co, GES, fall migrant.

Black-throated Blue Warbler: 6-26 Heartbreak Ridge, Cook Co, JCG; 6-29 Golde-neye Lake, (near Cramer) Lake Co, JCG.

Myrtle Warbler: nested in Hubbard Co; also reported from St. Louis, Lake, Cook, Clearwater, Carlton, Itasca Co's; 7-12 Onamia, Mille Lacs Co, 1 ad male, MIV (migrant ?); 8-30 Wright Co, GES, fall migrant.

Black-throated Green Warbler: nested in Hubbard Co; also reported from Lake, Cook, St. Louis, Clearwater, Carlton, Aitkin Co's; 8-14 Crow Wing Co, RLH; 8-30 Wright Co, GES, fall migrants.

Cerulean Warbler: 6-2 Franconia, Chisago Co, 2 singing, WHL; 6-3 Grand Lake, Stearns Co, 2 singing, NMH.

Blackburnian Warbler: nested in Clearwater, Hubbard Co's; also reported from Cook, Lake, St. Louis, Pine, Itasca, Carlton, Co's; 6-1 Minneapolis, KP; 6-2 Chisago Co, WHL, late spring migrants; 8-27 Anoka Co, WHL; 8-30 Wright Co, GES, fall migrants.

Chestnut-sided Warbler: nested in Hubbard Co; also reported from St. Louis, Lake, Cook, Clearwater, Pine, Morrison, Crow Wing, Carlton, Beltrami Co's.

Bay breasted Warbler: reported from Lake, Cook, Itasca Co's; 7-27 Clearwater Co, LWJ; 8-27 Anoka Co, WHL; fall migrants.

Pine Warbler: nested Clearwater Co; also reported from Lake, Crow Wing, Beltrami Co's.

Palm Warbler: 6-4 Chisago Co, 1 singing male, WHL, late spring migrant ? 6-25, Buck Lake, Itasca Co, pair HM.

Ovenbird: reported from Cook, Lake, St. Louis, Pine, Itasca, Hubbard, Clearwater, Morrison, Anoka, Sherburne, Crow Wing, Carlton, Rice, Goodhue, Washington, Mille Lacs, Beltrami, Winona Co's.

Northern Waterthrush: reported only from Lake Co (JCG, JAH); 8-8 Fargo-Moorhead, *vide* EGA, fall migrant.

Louisiana Waterthrush: 6-4 Franconia, Chisago Co, 6 singing resident males, WHL (may be northernmost record for state ?).

Connecticut Warbler: 6-5 Morrison Co, LSR; 6-12 Fargo-Moorhead, *vide* EGA; late spring migrants; reported otherwise only from Lake, Cook Co's; 8-26 Mille Lacs Co, MIV, early fall migrant.

Mourning Warbler: 6-4 Hennepin Co, VL, late spring migrant; reported from Cook, Lake, St. Louis, Hubbard, Pine, Crow Wing Co's.

Yellowthroat: nested in Anoka, Mille Lacs, Washington Co's; also reported from Stearns, Hubbard, Cook, Lake, St. Louis,

Pine, Clearwater, Morrison, Pope, Sherburne, Crow Wing, Carlton, Wright, Hennepin, Cottonwood, Carver, Rice, Goodhue, Nobles, Swift, Lyon, Wabasha, Beltrami, Winona Co's.

Wilson's Warbler: 6-15 Welch, Goodhue Co, RG, late spring migrant; 8-12 Fargo-Moorhead, *vide* EGA; 8-30 Wright Co, GES; fall migrants.

Canada Warbler: 6-8 Fargo-Moorhead, *vide* EGA, late spring migrant; reported from Cook, Lake, St. Louis Co's; 8-17 Goodhue Co, VL, early fall migrant.

American Redstart: nested in Mille Lacs Co; also reported from Stearns, Cook, Lake, St. Louis, Hubbard, Pine, Morrison, Douglas, Sherburne, Crow Wing, Rice, Goodhue, Hennepin, Chisago, Wright, Winona Co's.

Bobolink: nested in Hubbard Co; also reported from Stearns, Pine, Clearwater, Morrison, Todd, Pope, Sherburne, Crow Wing, Carlton (GWG), Wadena, Cottonwood, Carver, Blue Earth, Rice, Clay, Norman, Hennepin, Washington, Nobles, Swift, Lyon, Wabasha, Beltrami (ME), Anoka, Lake (JCG), Wright, Winona Co's.

Eastern Meadowlark: reported from Pine, Carlton, Mille Lacs, Rice, Hennepin, Washington, Anoka, Mille Lacs, Wright, Winona Co's.

Western Meadowlark: nested in Nobles, Lyon Co's; also reported from Stearns, Hubbard, Pine, Morrison, Sherburne, Carver, Rice, Winona, Wright, Beltrami, Clay, Hennepin, Pope, Washington, Wabasha, Anoka Co's.

Meadowlark, species ?: (reported as Eastern Meadowlarks but localities seem rather unlikely) Hubbard, Crow Wing, Cottonwood, Blue Earth, Beltrami Co's.

Yellow-headed Blackbird: nested in Todd, Lyon Co's; also reported from Hubbard, Morrison, Anoka, Sherburne, Hennepin, Rice, Cass (JAM), Washington, Jackson, Nobles, Swift, Wabasha, Blue Earth, Cottonwood, Mille Lacs, Wright, Winona Co's.

Red-winged Blackbird: nested in Mille Lacs, Anoka, Polk, Cass, Hennepin,

Grant, Hubbard, Lyon, Stearns Co's; also reported from Cook, Lake, St. Louis, Cottonwood, Beltrami, Crow Wing, Blue Earth, Pine, Morrison, Stevens, Pope, Sherburne, Carlton, Carver, Rice, Washington, Nobles, Wabasha, Wright, Winona Co's.

Orchard Oriole: nested in Lyon Co; also reported from Houston, Carver, Wabasha Co's.

Baltimore Oriole: nested in Mille Lacs, Hubbard, Polk, Kanabec, Hennepin, Lyon, Morrison, Stearns Co's; also reported from St. Louis, Cottonwood, Beltrami, Clearwater, Crow Wing, Blue Earth, Hennepin, Wabasha, Anoka, Sherburne, Carlton, Carver, Wright, Rice, Pope, Washington, Nobles, Swift, Winona Co's.

Brewer's Blackbird: nested in Stearns, Morrison, Benton Co's; also reported from St. Louis, Lake, Beltrami, Pine, Washington, Anoka Co's.

Common Grackle: nested in Mille Lacs, Rice, Lyon, Hubbard, Stearns Co's; also reported from St. Louis, Lake, Crow Wing, Blue Earth, Hennepin, Pine, Wabasha, Morrison, Stevens, Anoka, Sherburne, Carlton, Beltrami, Washington, Nobles Co's.

Brown-headed Cowbird: parasitized Red-winged Blackbird, Chipping Sparrow and Song Sparrow in Mille Lacs Co (MIV); Chipping Sparrow in Hennepin Co, (VL); Cardinal and Rose-breasted Grosbeak in Hennepin Co (MEH); also reported from Stearns, Cook, Lake, St. Louis, Beltrami, Crow Wing, Blue Earth, Lyon, Wabasha, Clearwater, Pine, Hubbard, Morrison, Sherburne, Carlton, Wright, Rice, Washington, Nobles, Anoka, Winona Co's.

Scarlet Tanager: nested in Crow Wing, Hubbard Co's; also reported from Stearns, Lake (JCG), Beltrami (ME), Pine, Clearwater, Morrison, Sherburne, Carlton, Rice, Itasca, Hennepin, Anoka, Mille Lacs Co's.

Cardinal: nested in Crow Wing (A.E. Olson), Hennepin Co's, and Fargo-Moorhead (*fide* EGA); also reported from Stearns, Brown, Winona, Wright, Wabasha, Ramsey, Carver, Rice, Washington, Anoka Co's; very late record of ad male feeding 1 fledgling on 10-3 at Mahtomedi, Ramsey Co, by Dale Haswell !

Rose-breasted Grosbeak: nested in Hennepin, Hubbard, Cook, Mille Lacs, Yellow Medicine Co's; also reported from Lake, Brown, Beltrami, Crow Wing, Goodhue, Norman, Wabasha, Morrison, Carlton, Wright, Carver, Marshall, Rice, Washington, Swift, Pipestone, Anoka, Winona Co's.

Indigo Bunting: nested in Hubbard Co (LWJ); also reported from Stearns, Cook (JCG), Lake (JCG), St. Louis, Crow Wing, Lyon, Clearwater, Hennepin, Pine, Morrison, Douglas, Sherburne, Carlton, Wright, Marshall, Rice, Pope, Washington, Nobles, Anoka, Mille Lacs, Roseau, Winona Co's.

Dickcissel: reported from Stearns, Washington, Morrison, Lyon, Wabasha, Ramsey, Carver, Clay, Todd, Crow Wing, Winona, Stevens, Sherburne, Wright, Hennepin, Rice, Pope, Nobles, Jackson, Anoka, Blue Earth, Cottonwood, Roseau (GES) Co's.

Evening Grosbeak: 6-27 Pequot Lakes, Crow Wing Co, nest, GES; 6-29 Echo Trail, St. Louis Co, pr with nest, NMH; 7-11 Crosby, Crow Wing Co, ad bringing y to feeder, MSB; 8-15 Bemidji, Beltrami Co, ad female feeding imm female, JAM; all summer, Itasca State Pk, Clearwater Co, 100 pairs present, 6 nests found, TCD; also reported from Hubbard, Cook, Lake, Carlton Co's.

Purple Finch: nested in Stearns, Mille Lacs, Kanabec Co's; also reported from Cook, Lake, St. Louis, Crow Wing, Hubbard, Pine, Carlton, Beltrami Co's, 7-28 1 male singing, Mpls, RBJ.

Pine Siskin: reported from St. Louis, Cook, Crow Wing, Beltrami Co's; 4-24 Grand Rapids, Itasca Co, nested, Mrs. E.M. Wachsberger; 6-6 to 7-28 Fargo-Moorhead, *fide* EGA (4y seen).

American Goldfinch: nested in Hubbard, Mille Lacs Co's; also reported from Stearns, Cook, Lake, St. Louis, Lyon, Crow Wing, Beltrami, Hennepin, Wabasha, Pine, Morrison, Sherburne, Carlton, Wright, Clearwater, Carver, Rice, Pope, Washington, Nobles, Swift, Anoka, Blue Earth, Winona Co's.

Red Crossbill: 6-1 to 6-6 Bemidji, Beltrami Co, JAM; 7-7 to 7-12 Fargo-Moorhead, *fide* EGA; also reported from Carlton Co (GWG).

Rufous-sided Towhee: reported from Pine, Carlton, St. Louis (JCG), Crow Wing, Washington, Hubbard, Sherburne, Winona Co's.

LARK BUNTING: 6-1 Mountain Lake, Cottonwood Co, 1, LAF; 6-18 Cottonwood, Yellow Medicine Co, 1 ad male, PE; 6-19 western Nobles Co, 1, HSH.

Savannah Sparrow: nested in Becker, Washington, Lac Qui Parle Co's; also reported from Lake, Stearns, Clay, Carver, Norman, Mahnomen, Hubbard, Pine, Nobles, Anoka, Roseau, Dakota, Mille Lacs, Winona Co's.

Grasshopper Sparrow: nested in Clay, Kanabec (RHJ) Co's; also reported from Lyon, Morrison, Clay, Sherburne, Hennepin, Rice, Pope, Washington, Nobles, Dakota, Anoka, Mille Lacs, Winona Co's.

BAIRD'S SPARROW: 7-21 Clay Co, 3 mi SE Felton, 3 singing males, excellent details, DB.

Leconte's Sparrow: reported from Morrison, Lake (JCG), Clay, Pine (BL), Roseau, Becker Co's. One from 5-30 to 6-9, Hibbing, St. Louis Co, HM.

Henslow's Sparrow: reported from Winona (DB, BT, GD), Anoka (WHL) Co's.

Sharp-tailed Sparrow: 6-15 Mahnomen Co, 4 mi S Waubun, 2, FN/MAS.

Vesper Sparrow: nested in Pope Co; also reported from Stearns, Crow Wing, Lyon, Wabasha, Carver, Goodhue, Dakota, Hubbard, Clearwater, Morrison, Anoka, Sherburne, Cottonwood, Wright, Hennepin, Rice, Washington, Nobles, Winona Co's.

Lark Sparrow: nested in Sherburne Co (RLH); also reported from Kanabec, Scott, Wabasha Co's.

Slate-colored Junco: nested in Carlton Co (GWG); also reported from Lake, St. Louis, Beltrami Co's.

Chipping Sparrow: nested in Mille Lacs, Winona, Swift, Anoka Co's; also reported from Kanabec, Cook, Stearns, Lyon, Hubbard, Rice, Lake, St. Louis, Crow Wing, Beltrami, Hennepin, Wabasha, Carver, Becker, Goodhue, Clearwater, Pine, Morrison, Sherburne, Carlton, Cottonwood, Pope, Washington, Nobles, Wright Co's.

Clay-colored Sparrow: nested in Mille Lacs, Crow Wing, Hubbard, Pope, Beltrami, Benton Co's; also reported from St. Louis, Lake, Crow Wing, Clay, Norman, Pine, Sherburne, Carlton, Hennepin, Washington, Anoka, Mahnomen, Roseau, Wright Co's.

Field Sparrow: nested in Pope Co; reported from Stearns, Wabasha, Hubbard (TCD), Hennepin, Carver, Rice, Washington, Anoka, Blue Earth, Winona, Aitkin (RLH) Co's.

White-throated Sparrow: nested in Clearwater Co; also reported from Cook, Lake, St. Louis, Carlton, Beltrami, Hubbard, Pine Co's.

Harris' Sparrow: 6-7 Duluth, St. Louis Co, 1 banded, JCG, late spring migrant.

Lincoln's Sparrow: One from 5-20 to 6-18 Hibbing, St. Louis Co, HM.

Swamp Sparrow: nested in Hubbard, Clay Co's; also reported from Cook, Lake, Crow Wing, Carver, Clearwater, Pine, Morrison, Washington, Anoka, Mille Lacs, Wright Co's.

Song Sparrow: nested in Mille Lacs, Lyon, Hubbard, Clearwater, Goodhue, Morrison Co's; also reported from Cook, Lake, St. Louis, Carver, Crow Wing, Beltrami, Pine, Wabasha, Carlton, Morrison, Pope, Anoka, Sherburne, Cottonwood, Wright, Hennepin, Rice, Washington, Nobles, Blue Earth, Winona Co's.

Chestnut-collared Longspur: 6-3 (EHH), 6-15 (FN/MAS) Clay Co, usual spot SE Felton.

SUMMARY: Over 59 observers were afield this summer, gathering data on 233 species of birds. Actual breeding evidence was amassed for only 131 species, however. Although the White Pelican "stole the show" with its first nesting for the state this summer, the Mockingbird and Ruby-crowned Kinglet deserve equal billing. Some of the outlandishly early fall migrants in July, when viewed against the late spring migrants in June, lend the impression that Spring gave way to Fall with only two or three weeks of intervening summer! I can't recall anymore extreme dates in the seven years that I've been compiling these reports. Unexpected visitors included the European Widgeon and Scissor-tailed Flycatcher. The Acadian Flycatcher returned for its second summer, and the Northern Three-toed Woodpecker reminds us that there is still much we don't know about the birds of the remote northern areas. The Eastern Bluebird was logged from 24 counties which, coupled with the recent winter records, might indicate that it has made its comeback and is now headed for a population peak. The Anoka County record of adult Tennessee Warblers with an immature is very enigmatic. Northerly records continue to accumulate for the Green Heron, Wood Thrush, Louisiana Waterthrush, Dickcissel, Indigo Bunting and Field Sparrow. The Lark Bunting and Baird's Sparrow, those infamous nomads of the prairie, enhanced the summer list, but for the first time in about five summers no one recorded the Blue Grosbeak from our southwestern corner.

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Notes of Interest

SWALLOWS CONGREGATE AT HOWARD LAKE — This report is written, not because it is unusual to see swallow flocks in late summer but because it was the first time this observer had made any attempt to count these birds.

Sunday, August 18, 1968 was a warm, humid, oppressive day with a mist falling intermittently throughout the day. There was a tornado watch area in western Minnesota, the eastern boundary of which ran through Litchfield, 22 miles to the west. Our resort covers five acres on the west shore of Howard Lake, Wright County. About half the area is covered by a grove of some 400 silver maples ranging from 10 to 35 feet in height; the remaining area has numerous trees of various kinds. We are two-thirds surrounded by water.

Each year we have an influx of midge flies which hatch in the water and live in the fly stage for about seven days. They resemble mosquitos but are about three times larger and, fortunately, do not bite. We noticed a few midges on Friday and Saturday. On Sunday the trees and bushes were literally covered — I counted 32 flies on one maple leaf (both sides) and all bushes and trees were similarly laden.

Swallows were everywhere, flying under trees and in all open areas, with many resting on utility wires, on the gravel driveway, and in the trees. By counting resting birds on a certain strip of wire and multiplying by the total length of utility wire, I calculated there were some 3600 birds resting on the wires at any one time. It was impossible to count with any accuracy those resting in trees or those flying at any given moment. However, I believe a conservative estimate would be a total of 20,000-25,000 birds over the five acre area.

We walked among the trees, shaking braches so the insects would fly and the swallows came within a foot or two of us, seemingly oblivious of our presence. Probably because of air currents, the majority of the birds seemed to fly in the same direction. This was particularly true when they flew out over the lake where the air currents would be unobstructed.

Approximately three-fifths of the birds were Tree Swallows; one-fifth, Purple Martins; one-fifth Bank, Rough-winged and an occasional Barn Swallow. The midge fly invasion tapered off quickly. At this writing, September 9, there are very few flies and a flock of about 100 swallows, mostly Tree. During the summer we had a nesting colony of 60 pairs of Purple Martins. Nine pairs of Tree Swallows nested in boxes (all we had available) plus several pairs in tree holes. *Mrs. Ella H. Dahlberg, Timber's Resort, Howard Lake, Minnesota.*

EUROPEAN WIDGEON SEEN IN HOUSTON COUNTY — On April 17, 1968 I saw a single European Widgeon on the Mississippi River just north of Reno, Houston County, Minnesota. The bird was observed for about ten minutes with 9x35 binoculars at about 70 feet under excellent light conditions. The following characteristics were noted: the head was brownish with gray-white sides, stripe on the top of the head was darker than that of the American Widgeons. The bird was the same size as the hundreds of American Widgeons that surrounded it. I saw the European Widgeon on one day only, although I made several other trips to find it. *Brother Theodore Voelker, St. Mary's College, Winona, Minnesota.*

GREEN-WINGED TEAL NESTING IN SOUTH CENTRAL MINNESOTA — In the spring of 1968, during haying operations in Le Sueur Country, two miles south of Waterville, Minnesota, a Green-winged Teal nest was partially run over by a mower. The female duck was killed by the sickle. Five eggs were salvaged and placed in an

incubator. Four eggs hatched, and one of the young died. Of the remaining three, two were males, and one a female, which were successfully raised. At the time of the mower accident, the farmer assumed he had killed a Blue-winged Teal. Not until the young had feathered out did he recognize that he had Green-winged Teal. It was at this time that I learned of these ducks, and went to see them. This is an unusual nesting record for South Central Minnesota, being the second one known. Rice County has had an earlier record. According to T. S. Roberts, *Birds of Minnesota (1936)*, "There are no records of (Green-winged Teal) nests found in recent years." In A.C. Bent, Vol. I, *Life Histories of North American Waterfowl*, P. 110 (1951) the "Breeding Range (of Green-winged Teal), distribution. Minnesota: Rice and Jackson Counties." Technical Bulletin No. 7, *Waterfowl in Minnesota*, by Forrest B. Lee, et al, (April 1964), "Breeding in Minnesota (of Green-winged Teal) is rare, but there are occasional records in both western prairie and northwestern forested counties. Brood observations include the following counties: Hennepin, Itasca, Mille Lacs, Ottertail, Polk, Stevens, and Yellow Medicine."

The Loon, 39:123, The Summer Season report, states that Green-winged Teal were reported from Lyon, and Clay Counties in June, and in Nobles County in June and July of 1967. *Orwin A. Rustad, 1134 East Division Street, Faribault, Minnesota.*

PEREGRINE AND KRIDER'S HAWK RECORDS — On April 9, 1968, along the eastern shore of Lake Traverse, I recorded the following interesting raptors:

KRIDER'S HAWK: An individual of the Krider's race of the Red-tailed Hawk was spotted flying low over a semi-wooded bluff. I noticed immediately the almost immaculately white underparts of this bird. The belly area which in a normal Red-tail contains dark streakings was white in my bird, except for three small streaks. These were the only underside markings. The back was light brown, only slightly mottled with white. The tail was almost white at the base, but was a light rusty color at the tip. Last year, I saw a Krider's hawk at almost the same place this one was observed. I doubt these birds were the same ones, however, since last year's bird had more of a white mottled effect on the back.

PEREGRINE FALCON: About one mile from the spot where I noted the Krider's Hawk, I spotted a Peregrine Falcon, in brown backed immature plumage, flying about 100 feet above the bluffs. I observed the "sideburns" and streaked breast before the falcon disappeared from view over the lake. *John A. Hart, 309 E. Second St., Morris, Minnesota.*

HARLAN'S HAWK IN LYON COUNTY — The hawk in question was seen on two occasions, October 10 and 12, 1968, one and one-half miles northwest of Cottonwood in Lyon County. On both occasions viewing conditions were excellent being either clear or mostly clear with light winds. The hawk was seen at a range of 150-200 yards the first time, and as close as 20 yards on the second. It was viewed both sitting and flying with 7x50 binoculars. It was studied for 15 minutes the first time and 20 minutes the second. The hawk was a very large Red-tail shaped bueto. They back was coal black with mottled light gray or black on the upper back near the head and neck, the lower back was devoid of mottling. The belly was a solid coal black with no mottling. Tail was a light gray below with a not too distinctive terminal band. The upper view of the tail was darker with some gray mottling. The wings were black from above with some gray mottling toward the end of the primaries. From below the wing linings were black and the primaries were white with black tips. There were some dark flecks on the primaries on the area just before the black tips. This hawk was definitely not the shape of a Rough-legged Hawk. Also the tail did not have the pattern from above of light at the base and dark wide terminal band as is usual for the Rough-leg. The features that

seem to distinguish it from a melanistic Red-tail were the complete lack of any brown in the plumage. The bird I observed was black with grays and the tail did not have any trace of red or brown which is characteristic of the Red-tail. *Paul Egeland, Cottonwood, Minnesota.*

OBSERVATIONS AT A GREAT HORNED OWL NEST IN MILLE LACS COUNTY — Near the outskirts of Onamia there is a medium sized deciduous wood. On March 24, 1968 as I stopped there near a big basswood tree, a Great Horned Owl suddenly appeared in the air. It seemed as if it jumped from that tree. About 30 feet off the ground this tree used to have two thick limbs, growing like the letter V. Later one side of that V broke off leaving a depression in the trunk of the tree, rather like a big bowl. Without thinking about a nest, although at that time owls could be incubating, I left the wood. Several times during April I saw two Great Horned Owls in that wood, but could not find a nest. On May 5 by a lucky chance I came again to that basswood tree and suddenly looked up toward its top, and there I saw two about half-grown, downy owls sitting in the bowl of the tree. During May I saw them several times. The adult owls were always 100 to 200 yards away from the nest. Seeing me walking along the road they moaned but never did attack me. For the last time I saw the young owls in the nest on May 25. They were already big. Their plumage looked fluffy and they had no horns. On May 30 the nest was deserted. The young owls were sitting in trees about 50 and 100 yards from the nest. On June 16 they could fly well and were very shy. On June 23 they still had no horns but had become very good fliers. For the last time I met my owls on July 1. Doubtless they moved to a big wood nearby where I used to see Great Horned Owls during several preceding years. *Michael Ivanovs, P.O. Box 105, Onamia, Minnesota.*

RACCOON PILFERED A GREAT BLUE HERON'S NEST — About nine miles northwest of Onamia, Mille Lacs County, there is a small Great Blue Heron Colony. It consists of nine nests in dead trees amid a beaver pond. On June 25, 1968, eight of the nests contained young herons, big, middle-sized and small. As I approached the colony on July 9, I saw something, which did not look like a heron, sitting on the rim of one nest, in a somewhat leaning tree. Soon I recognized it as a Raccoon. Once in a while he put his head into the nest and when he lifted it I could see him chewing something. This nest had contained two or three very small herons on June 25. I watched the Raccoon for 20 minutes. Then he saw me and very slowly descended the barkless tree and swam across the pond. Mr. and Mrs. Gossen of Onamia apparently saw the same raccoon on the evenings of July 7 and 9, sitting on the very same nest. *Michael Ivanovs, P.O. Box 105, Onamia, Minnesota.*

MORE MOCKINGBIRD REPORTS — On May 12, 1968, I collected a male Mockingbird about three miles west of Nimrod, Wadena County, Minnesota.. The following measurements were recorded: total length, 2267 mm; extended wings, 377 mm; wing (non flattened chord), 10 mm; tail 128 mm; and culmen 16 mm. The specimen was moderately fat weighing 57.2 grams with the right testis measuring 10x6 mm. The plumage exhibited moderately heavy wear and contained much dirt which was removed by washing prior to preparation as James Forn Bell Museum of Natural History Speciman No. 23326. It represents in the James Ford Bell Museum of Natural History research collection, the fourth Minnesota specimen.

On September 7 1968 Oscar Kalin, Jr. and myself while engaged in Minnesota mammal survey trapping activities observed a Mockingbird fly in front of our station wagon across County Road 16 in Lake of the Woods County at T158N, R31W Sec 4NW¼. It flew into Sec 33 of T159 which was low, wet, open pastureland with sparse groves of Trembling Aspen and willow spp. The next day, another Mockingbird sight-

ing took place at the NE-¼ of Section 4, four tenths of one mile south on County Road 1 from the intersection of County Roads 1 and 16. The bird was seen alighting on a barbed wire fence along the roadside. It is theorized that this bird may have been another rather than the same bird observed the previous day, and that Mockingbirds may have bred in the locality. The most salient field marks of this bird were the flashing white wing patches and the unique manner of flight somewhat suggesting the bird might collapse in flight at any moment. We saw the Mockingbird(s) at distances as close as approximately 30 feet. We have absolutely no doubt as to identification. *Richard Oehlenschlager, 724 - 20th Ave. South, Minneapolis, Minnesota 55404.*

HARLAN'S HAWK IN LAC QUI PARLE COUNTY — On April 5, 1968, about three miles west of Rosen, in northwestern Lac Qui Parle County, I observed a flying buteo 100 feet above me. Judging by its size; and its wing and tail shape, I assumed the bird was an Eastern Red-tailed Hawk. With binoculars, however, I saw that this buteo's dorsal coloration was of a darker brown than that of the Eastern Red-tail. With a 15 to 60 power scope, I noted that the buteo's back was somewhat mottled with tan and that the tail was a dirty white color with a blurry terminal band of black-brown. The tail was also finely spotted immediately above the terminal band (see figure 1.). The bird's underparts were exactly like those of an Eastern Red-tail and the underside of the tail was dusky white (see figure 2.). When the hawk vanished from view, I took some notes and made several sketches. (Both of which are incorporated into this description.) The time of the observation was 4:15 PM and the sun was directly at my back at all times.

Singer's illustration of a light phase Harlan's Hawk² is quite similar to the undersides of the hawk I observed, except that the undersides of my hawk were a grayer white rather than being immaculately white; and also the underside of my hawk's tail was unmarked rather than being marked as in Singer's bird. Janet Green² notes that collected immature Harlan's Hawks have a large amount of white on the back. If my bird is a light phase Harlan's Hawk, perhaps this mottled trait applies to them not only as immatures, but as adults also. It is interesting to note that Bent³; Robbins, Brun and Zim¹; Forbush and May⁴; and Grossman and Hamlet⁵ all give ventral descriptions of the light phase Harlan's Hawk, but none give dorsal descriptions. My own experience with Harlan's Hawk is limited to the observation of a melanistic adult, so I am unfamiliar with light phase birds. I feel that the hawk I observed was a Harlan's Hawk, but whether it was a light phase bird, or an intermediate between light and dark phase birds seems to depend on whether both light and dark phase birds have similar dorsal coloration.

Figure 1.



Figure 2.



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1. Robbins, Brun, Zim (illustrated by Singer). *Birds of North America*. P.72.
2. Green, Janet. *The Identification of Harlan's Hawk*. *The Loon*. 39:4-7.
3. Bent, A.C. 1961. *Life Histories of North American Birds of Prey*. Vol. 1. P. 174-178.
4. Forbush and May. 1955. *A Natural History of American Birds of Eastern and Central North America*. P. 107-108.
5. Grossman and Hamlet. 1964. *Birds of Prey of the World*. P. 262-264.

LATE SNOW AND BLUE GEESE IN BIG STONE COUNTY — Occasionally, Snow and Blue Geese remain until late May in the northern Minnesota counties. These two species of geese, however, usually leave the southern and central counties before the early part of May. I think it is quite unusual then to record a flock of 120 Snows and Blues on May 10, 1968, at Marsh Lake, Big Stone County, and even more unusual to find a Snow and a Blue there on May 28, 1968. On May 10, I noted the geese in a compact group 400 yards out on the water. On May 28, I found the two geese on a mud bar 1000 yards from the point of observation. At both observations the sun was at my back and both times I used a 15 to 60 zoom spotting scope. *John A. Hart, 309 East Second St., Morris, Minnesota.*

BOOK REVIEW

THE AUDUBON ILLUSTRATED HANDBOOK OF AMERICAN BIRDS, Edgar M. Reilly, Jr. McGraw Hill Book Company, 330 W. 42nd St. New York, N. Y. 10036. 8½x11, 544 pages, over 500 illustrations. *25.00. 1968.

THE AUDUBON ILLUSTRATED HANDBOOK OF AMERICAN BIRDS, sponsored by the National Audubon Society, is the most comprehensive single volume ever published on the birds of North America.

Written by Dr. Edgar M. Reilly, Jr., a well-known ornithologist who has spent a lifetime studying birds in the United States and abroad, and edited by Dr. Olin Sewall Pettingill, Jr., Director of Cornell University's world-famous Laboratory of Ornithology, the Handbook provides authoritative accounts of every species of bird found north of Mexico, including Hawaiian species, stragglers, and birds relatively new to North America. In all, nearly 875 species are fully described in this definitive volume.

Following a general introduction, which explains the organization of the book, special terms, and sources of material, each bird family is introduced by a paragraph giving information on its size, world distribution, and common characteristics of birds in the family. Next, individual accounts of all the species in each family that breed in North America are given. The accounts, incorporating many of the latest advances in ornithological research, present a wealth of detailed information on the birds' appearance, voice, range and status, habitat, seasonal movements, and biology.

THE AUDUBON ILLUSTRATED HANDBOOK OF AMERICAN BIRDS contains more than 375 black-and-white and 32 full-color photographs by America's leading bird photographers, as well as 100 lifelike drawings by Albert Earl Gilbert. The photographs and drawings, selected for clarity, content, and artistry, represent one of the largest, most dramatic collections of illustrations of birds in their natural surroundings ever to be assembled in a single volume.

INDEX TO VOLUME 40

- Anderson, Bertin W. and Richard J. Oehlenschlaeger, a study of wintering Horned Larks in southwestern Minnesota, 93-97
- Anderson, Mrs. George A., extremely late date for the Upland Plover, 60
- Avocet, American, 11, 81, 122
- Bittern,
American, 7, 77, 119
Least, 7, 36, 77, 119
- Blackbird, 3, 15, 67
Brewer's, 15, 46, 75, 86, 128
Red-winged, 15, 46, 70, 75, 127
Rusty, 15, 46, 75, 86
Yellow-headed, 15, 57, 61, 70, 86, 127
- Bluebird, 3, 56
Eastern, 13, 46, 84, 125, 130
- Bobolink, 15, 58, 86, 127
- Bobwhite, 79
- Bolduc, Donald, Kentucky Warbler seen in Minneapolis, 57
- Breckenridge, W. J., the strange case of the stuck duck, 52-53; Minnesota nesting of White Pelicans, 100
- Breen, Frank and Mary, Western Tanager at Morris, 57
- Bufflehead, 8, 35, 42, 74, 78, 119
- Bunting,
Indigo, 16, 17, 87, 128, 130
Lark, 58, 87, 88, 129, 130
Snow, 17, 48, 54, 75, 88, 99
- Burton, Mrs. Theodore P., Yellow-crowned Night Heron reported from Hopkins, 24
- Canvasback, 8, 70, 119
- Campbell, T. R., Western Grebe in Crow Wing County, 58
- Cardinal, 15, 20, 46, 67, 73, 75, 86, 128
- Brazilian, 102
- Catbird, 13, 17, 21, 45, 48, 83, 125
- Chickadee,
Acadian, 24
Black-capped, 24, 73, 75, 124
Boreal, 13, 17, 24, 45, 75, 83, 124
- Chipmunk,
Eastern, 76
Least, 76
- Chukar, 43
- Cline, David R., Peregrine Falcon sightings, 41
- Cline, David R. and Eric Dornfeld, the Agassiz Refuge Cormorant colony, 68-72
- Cormorant, Double-crested, 3, 7, 17, front cover No. 3, 68-72, 76, 100, 118
- Cowbird, Brown-headed, 15, 46, 60, 75, 86, 100-101, 128
- Crane,
Crowned, 102
Sandhill, 9, 79, 120
Whooping, 21, 68
- Creeper, Brown, 13, 45, 75, 83, 125
- Crossbill, 3
Red, 16, 47, 75, 87, 89, 129
White-winged, 47, 75, 89
- Crow, Common, 45, 58, 75, 124
- Cuckoo, 26-27
Black-billed, 11, 81, 122
Yellow-billed, 11, 26-27, 81, 122
- Curlew, 35
Long-billed, 52, 80, 88
Stone, 102
- Dahlberg, Mrs. Ella H., swallows congregate at Howard Lake, 131
- Dickcissel, 16, 54, 87, 128, 130
- Dornfeld, Eric and David R. Cline, the Agassiz Refuge Cormorant colony, 68-72
- Dove,
Ground, 19
Morning, 3, 11, 44, 74, 81, 122
- Dowitcher, 10, 80, 121
Long-billed, 3, 10, 80
Short-billed, 3, 10, 80
- Duck, 29, 49, 52, 91, 92
Black, 8, 42, 74, 77, 119
Harlequin, 42, 48
Ring-necked, 8, 29, 42, 74, 77, 119
Ruddy, 8, 43, 74, 78, 120
Wood, 8, 42, 52-53, 74, 77, 119
- Dundas, Les, 1951 Whooping Crane record, 21
- Dunstan, Thomas C., breeding success of Osprey in Minnesota from 1963 to 1968, 109-112; a camera research apparatus for investigating nests of cavity or canopy nesting birds, 115-117
- Dunlin, 10, 80
- Eagle, 97, 98
Bald, 9, 43, 74, 78, 97-99, 109, 113-114, 115, 117, 120
Golden, 3, 9, 78, 88
- Eastman, Whitney and Karen, Gray Jay in Edina, 22
- Eckert, Kim R., Say's Phoebe and Ground Dove specimens found, 18-19; possible Gyrfalcon in Duluth, 55
- Egeland, Paul, Harlan's Hawk in Lyon County, 132-133
- Egret, Common, 7, 77, 118
- Fahey, Patricia L., Great Blue Herons, 37-40
- Falcon, Peregrine, 9, 41, 54, 79, 88, 132
- Finch,
Black Rosy, 99
Gouldian, 102
Gray-crowned Rosy, 47, 48, 99
Purple, 47, 75, 128
- Flicker, 55
Red-shafted, 11, 17, 55, 82
Yellow-shafted, 11, 44, 53, 55, 74, 82, 123
- Flycatcher, 3, 4, 17
Acadian, 4-6, 123, 130
Great Crested, 12, 82, 123
Least, 4, 5, 6, 12, 82, 123
Olive-sided, 12, 83, 124
Scissor-tailed, 123, 130
Traill's, 6, 12, 82, 123
Yellow-bellied, 12, 82, 123
- Forsythe, Dennis M., an incomplete albino Brown-headed Cowbird, 100-101
- Fox,
Gray, 20, 49-51
Red, 21, 49-51
- Frantzich, Wensell, the airport as a game sanctuary, 20
- Frigate-bird, Greater, 102
- Fuller, Mrs. Andrew, Prairie Warbler observation, 59-60
- Cadwall, 8, 73, 74, 77, 119
- Gallinule, Common, 3, 10, 79, 121
- Gambill, Robert L., Western Tanager record from Cook County, 23
- Gannet, Northern, 102
- Gnatcatcher, Blue-gray, 84
- Godwit, 3, 35
Hudsonian, 3, 81
Marbled, 3, 81, 121
- Goldeneye,
Barrow's, 42, 48
Common, 42, 74, 78, 102, 119
- Goldfinch, American, 16, 21, 47, 73, 75, 128
- Goose, 35, 135
Blue, 8, 42, 77, 135
Canada, 8, 42, 71, 73, 74, 77, 119
Snow, 8, 42, 73, 74, 77, 135
White-fronted, 77
- Goshawk, 8, 43, 78, 120
- Grackle, Common, 15, 46, 73, 75, 86, 128
- Grebe,
Eared, 7, 17, 53, 76, 118
Horned, 7, 42, 73, 74, 76, 118
Pied-billed, 7, 41, 42, 70, 76, 118
Red-necked, 7, 76, 118
Western, 58, 76, 118
- Green, Janet C., Western Tanager record from St. Louis County, 23; late record for the Eared Grebe, 53; a flock of Varied Thrushes on the North Shore, 53-54
- Grosbeak,
Blue, 130
Evening, 16, 23, 47, 61, 73, 75, 87, 99, 128
Pine, 16, 47, 73, 75, 87
Rose-breasted, 16, 86, 128
- Grouse,
Ruffed, 9, 43, 73, 74, 79, 120
Sharp-tailed, 9, 11, 43, 74, 79, 120
Spruce, 9, 43, 79, 120
- Gull, 41, 44, 70
Bonaparte's, 3, 11, 81, 122
Franklin's, 11, 41, 48, 54, 69, 70, 81, 122
Glaucous, 11, 44, 74, 81
Great Black-backed, 44
Herring, 44, 74, 122
Iceland, 44, 48, 81, 88
Ring-billed, 11, 44, 81, 122
Slaty-backed, 44
- Gyrfalcon, 26, 43, 48, 55
- Haag, Ken, Lark Bunting seen in St. Paul, 58
- Hart, John A., observations of a Krider's Hawk, 24; notes on the Boreal Chickadee, 24; Blue-winged Warblers observed in Sherburne County, 24; fall records of White-winged Scoters, 54; a fall record for the Peregrine Falcon in western Minnesota, 54; exceptionally late Yellow-throated Vireo record, 54; a late Dickcissel record and an early Snow Bunting record, 54; Field Sparrows in Pope County, 54-55; Peregrine and Krider's Hawk records, 132; Harlan's Hawk in Lac Qui Parle County, 134; late Snow and Blue Geese in Big Stone County, 135

- Hawk, 101, 132, 134
 Broad-winged, 9, 78, 120
 Cooper's, 9, 74, 78, 120
 Ferruginous, 9, 17, 73, 74
 Harlan's, 78, 132-133, 134
 Krider's, 24, 132
 Marsh, 9, 43, 56, 74, 78, 120
 Pigeon, 9, 79, 120
 Red-shouldered, 9, 43, 74, 78, 120
 Red-tailed, 9, 24, 43, 74, 78, 101, 115, 117, 120, 132, 133, 134
 Rough-legged, 9, 26, 43, 73, 74, 78, 132
 Sharp-shinned, 9, 43, 78, 120
 Sparrow, 9, 43, 74, 79, 120
 Swainson's, 9, 78, 120
- Heron, 3, 24, 28, 37, 39
 Black-crowned Night, 7, 17, 69, 70, 77, 100, 119
 Great Blue, 7, 37-40, 42, 76, 100, 118, 133
 Green, 7, 76, 118, 130
 Yellow-crowned Night, 7, 24, 77, 108, 119
- Howe, Marshall, Black-backed Woodpecker seen in St. Paul, 27
- Huber, Ronald, the fall season, 7-17; the winter season, 42-48; the spring season, 76-89; the summer season, 118-130
- Hummingbird, Ruby-throated, 11, 82, 122
- Ivanovs, Michael, Mockingbird in Onamia, Mille Lacs County, 101; observations at a Great Horned Owl nest in Mille Lacs County, 133; Raccoon pilfered a Great Blue Heron nest, 133
- Janssen, Robert B., Loggerhead Shrike seen on Excelsior Christmas Count, 25; the 1967 Christmas Count in Minnesota, 73-75; second record for a Rosy Finch in Minnesota, 99
- Jay
 Blue, 3, 45, 75, 124
 Gray, 12, 17, 22, 45, 75, 83, 124
 Johnson, Roger C., Long-billed Curlew visits Wayzata, 52
- Junco, 55
 Oregon, 16, 47, 75, 87
 Slate-colored, 16, 47, 75, 87, 129
- Kaufman, Jerry, Black Rail seen in Anoka County, 101
- Killdeer, 10, 44, 48, 74, 79, 121
- Kingsbird, 56-57
 Eastern, 12, 13, 56, 82, 123
 Western, front cover No. 1, 12, 13, 56, 82, 123
- Kingfisher, Belted, 11, 44, 74, 122
- Kingslet, 3
 Golden-crowned, 46, 75, 84, 125
 Ruby-crowned, 73, 75, 84, 125, 130
- Kittiwake, Black-legged, 81, 88
- Knot, 10
- Koopman, Lester J., Western Tanager record from Becker County, 23
- Kopischke, Earl D., winter food habits of foxes, 49-51; odd-plumaged cowbirds, 60; Burrowing Owl in Watonwan County, 101; instinctive response to danger by pheasants, 101
- Lark, Horned, 12, 20, 45, 75, 93-97, 124
 Desert, 95
 Hoyt's, 95
 Northern, 95
 Prairie, 95
 Saskatchewan, 95
- Leshner, Fred, the loon cry, 3, 35, 67, 107; Acadian Flycatcher nest in southeastern Minnesota, 4-6
- Longspur
 Chesnut-collared, 88, 129
 Lapland, 17, 48, 75, 88
 Smith's, 3
- Loon
 Black-throated, 102
 Common, 3, 7, 68, 76, 118
- Magpie, Black-billed, 12, 17, 45, 75, 83
- Mallard, 20, 42, 74, 91, 100, 119
- Martin, Purple, 12, 83, 124, 131
- Mathisen, John E., Bald Eagle-Osprey status report, 1968, 97-99; identification of Bald Eagle and Osprey nests in Minnesota, 113-114
- Mathisen, John and Ann, Least Bittern nesting, 36; Yellow-headed Blackbirds in Cass County, 57
- Meadowlark
 Eastern, 15, 46, 127
 Western, 15, 46, 75, 86, 127
- Merganser, 35
 Common, 8, 43, 74, 78, 120
 Hooded, 8, 43, 78, 120
 Red-breasted, 8, 43, 78, 120
- Micensky, Mrs. John, evidence of Upland Plover nesting in St. Louis County, 21-22
- Mink, 20, 49, 50
- Mockingbird, 83, 101, 125, 130, 133-134
- Murre, 108
- Muskkrat, 20, 49
- Nighthawk, Common, 11, 82, 122
- Nicholls, Thomas H., Minnesota's 1966-67 Snowy Owl invasion, 90-92
- Nubel, Fran, late dates for the Prothonotary Warbler, 25-26; possible Gyrfalcon, 26
- Nuthatch
 Red-breasted, 13, 45, 75, 83, 91, 125
 White-breasted, 22, 45, 62, 75, 124
- Oehlenschlaeger, Richard J., more Mockingbird reports, 133-134
- Oehlenschlaeger, Richard J. and Bertin W. Anderson, a study of wintering Horned Larks in southwestern Minnesota, 93-97
- Oldsquaw, 8, 42, 78
- Olson, Manley E., Summer Tanager seen in St. Paul, 59
- Opossum, 20, 49
- Oriole
 Baltimore, 15, 23, 46, 48, 86, 128
 Orchard, 15, 86, 128
 Osprey, 9, 79, 97-99, front cover No. 4, 109-112, 113-114, 115, 117
- Ovenbird, 15, 85, 127
- Owl, 55, 90, 91, 92, 101
 Barn, 102
 Barred, 11, 44, 74, 82, 122
 Burrowing, 82, 101
 Great Horned, 11, 44, 67, 74, 81, 115, 117, 122, 133
 Hawk, 11, 44
 Long-eared, 11, 44, 67, 82
 Saw-whet, 82
 Screech, 3, 11, 44, 74, 81, 101, 122
 Short-eared, 11, 44, 74, 82
 Snowy, 11, 17, 20, 26, 44, 55, 74, 82, 88, 90-92
- Parrot, Cuban, 102
- Partridge, Gray, 9, 43, 74, 79, 120
- Pelican, White, 3, 7, 48, 72, 76, 100, 118, 130
- Pewee, Eastern Wood, 12, 82, 124
- Phalarope
 Northern, 11, 17, 81
 Wilson's, 11, 81, 122
- Pheasant, Ring-necked, 9, 20, 43, 49, 50, 51, 52, 74, 79, 91, 92, 101, 120
- Phoebe
 Eastern, 12, 82, 123
 Say's, 18-19
- Pintail, 8, 42, 77, 119
- Pipit
 Sprague's, 84, 126
 Water, 13, 84
- Plover
 American Golden, 10, 79
 Black-bellied, 10, 79
 Piping, 3, 10, 17, 79, 121
 Semipalmated, 10, 79, 121
 Upland, 3, 10, 21-22, 60, 80, 121
- Prairie Chicken, Greater, 40, 68, 79
- Puffin, 108
- Rabbit, 51
 Cottontail, 49, 50
 Jack, 20, 49, 92
- Raccoon, 20, 49, 50, 133
- Rail, 101
 Black, 101
 King, 79
 Virginia, 10, 79, 101, 120
 Yellow, 9, 120
- Raven, Common, 12, 45, 75, 83, 124
- Redhead, 8, 29, 42, 77, 119
- Redpoll
 Common, 16, 47, 75, 87
 Hoary, 47, 87
- Redstart, American, 15, 26, 86, 127
- Robin, 3, 13, 46, 53, 67, 75, 83, 125
- Rustad, Orwin A., Green-winged Teal nesting in south central Minnesota, 131-132
- Sanderling, 11, 81, 121
- Sandpiper
 Baird's, 10, 80, 121
 Buff-breasted, 10, 81
 Least, 10, 81, 121
 Pectoral, 10, 80, 121
 Semipalmated, 10, 81, 121
 Solitary, 10, 17, 80, 121
 Spotted, 10, 80, 121
 Still, 10, 81, 121
 Western, 10, 17
 White-rumped, 10, 80, 121
- Sapsucker, Yellow-bellied, 12, 45, 48, 82, 123
- Scaup, 35, 119
 Greater, 8, 77
 Lesser, 8, 42, 74, 77, 119
- Scoter, 35
 Common, 8
 Surf, 8, 43, 48, 78, 120
 White-winged, 8, 43, 54, 78, 88, 119
- Shoveler, 18, 77, 110

- Shrew, 49, 92
 Shrike, 56, 73, 101
 Loggerhead, 3, 14, 25, 46, 56, 73, 75, 84, 89, 126
 Northern, 13, 25, 46, 75, 84
 Siskin, Pine, 16, 47, 60, 73, 75, 87, 128
 Skunk, 20, 49, 50
 Smith, J. Morton, woodpeckers at Windom, 55-56
 Snipe, Common, 10, 44, 74, 80, 121
 Sora, 10, 79, 101, 120
 Sparrow, 54
 Baird's, 87, 88, 129
 Chipping, 16, 88, 129
 Clay-colored, 16, 26, 54, 88, 129
 Field, 16, 54-55, 88, 129, 130
 Fox, 17, 48, 88
 Grasshopper, 16, 87, 129
 Harris', 16, 47, 48, 75, 88, 129
 Henslow's, 108, 129
 House, 67, 75
 Lark, 16, 87, 129
 LeConte's, 16, 87, 129
 Lincoln's, 3, 17, 88, 129
 Savannah, 3, 16, 87, 129
 Sharp-tailed, 87, 129
 Song, 17, 48, 75, 88, 129
 Swamp, 3, 17, 88, 129
 Tree, 16, 47, 75, 87
 Vesper, 16, 26, 48, 87, 129
 White-crowned, 16, 88
 White-throated, 16, 47, 75, 76, 88, 129
 Squirrel, 50
 Fox, 49, 50
 Gray, 50
 Red, 50
 Thirteen-lined Ground, 49
 Starling, 67, 75
 Swallow, 131
 Bank, 12, 83, 124, 131
 Barn, 12, 83, 124, 131
 Cliff, 12, 83, 124
 Rough-winged, 12, 83, 124
 Tree, 12, 83, 124, 131
 Swan,
 Whistling, 8, 42, 48, 77
 Trumpeter, 68
 Swift, Chimney, 11, 82, 122
 Tanager,
 Scarlet, 15, 23, 57, 59, 86, 128
 Summer, 23, 59, 86, 88
 Western, 23, 57, 86, 88
 Teal, 35
 Blue-winged, 8, 77, 119, 132
 Green-winged, 8, 77, 119, 131-132
 Telfer, Mr. and Mrs. John D., Myrtle Warbler winters in
 Edina, 21, Catbird winter record, 21
 Tern,
 Black, 11, 81, 122
 Caspian, 11, 81, 122
 Common, 11, 81, 122
 Forster's, 11, 81, 122
 Thrasher, Brown, 13, 46, 48, 73, 75, 83, 101, 125
 Thrush, 108
 Gray-cheeked, 13, 84, 125
 Hermit, 13, 17, 83, 125
 Swainson's, 13, 35, 83, 125
 Varied, 46, 48, 53-54
 Wood, 83, 125, 130
 Titmouse, Tufted, 13, 45, 67, 75, 83, 124
 Towhee, Rufous-sided, 16, 47, 48, 87, 129
 Turkey, 73, 75
 Turnstone, Ruddy, 80, 121
 Veery, 13, 84, 125
 Vireo, 17, 54, 108
 Bell's, 84, 126
 Philadelphia, 14, 84, 126
 Red-eyed, 3, 14, 84, 126
 Solitary, 14, 35, 84, 126
 Warbling, 14, 84, 126
 Yellow-throated, 14, 26, 54, 84, 126
 Voelker, Brother Theodore, European Widgeon seen in
 Houston County, 131
 Vole, Meadow, 92
 Vulture, Turkey, 8, 78, 120
 Wachsberger, Mrs. E. M., Pine Siskin nest, 60
 Warbler, 17, 21, 24, 76, 102
 Bay-breasted, 14, 85, 127
 Black-and-white, 14, 84, 126
 Blackburnian, 14, 85, 127
 Blackpoll, 14, 85
 Black-throated Blue, 14, 17, 126
 Black-throated Green, 14, 85, 126
 Blue-winged, 14, 24, 84, 126
 Canada, 15, 86, 127
 Cape May, 14, 85, 126
 Cerulean, 85, 127
 Chestnut-sided, 14, 85, 127
 Connecticut, 15, 86, 127
 Golden-winged, 14, 84, 126
 Kentucky, 57, 86, 88
 Magnolia, 14, 85, 126
 Mourning, 15, 57, 61, 86, 127
 Myrtle, 14, 21, 46, 73, 75, 85, 126
 Nashville, 14, 24, 85, 126
 Orange-crowned, 14, 85
 Palm, 15, 85, 127
 Parula, 14, 85, 126
 Pine, 15, 85, 127
 Prairie, 59-60, 85, 88
 Prothonotary, 3, 14, 25-26, 35, 84, 107, 126
 Tennessee, 14, 76, 84, 126, 130
 Wilson's, 15, 86, 127
 Yellow, 14, 85, 126
 Waterthrush,
 Louisiana, 85, 127, 130
 Northern, 15, 85, 127
 Waxwing,
 Bohemian, 13, 46, 75, 84
 Cedar, 13, 46, 75, 126
 Welter, Mrs. Leslie, observation of a Yellow-billed Cuckoo
 in Hubbard County, 26-27
 Whimbrel, 35, 80
 Whip-poor-will, 82, 122
 Widgeon,
 American, 8, 35, 77, 119, 131
 European, 77, 88, 108, 119, 130, 131
 Willet, 80, 121
 Winter, Edmund, possible Loggerhead Shrike in
 December, 56
 Woodcock, American, 10, 80, 121
 Woodpecker, 3, 22
 Black-backed Three-toed, 12, 27, 45, 73, 75, 82, 88, 123
 Downy, 22, 45, 73, 74, 123
 Green, 102
 Hair, 22, 45, 73, 74, 123
 Northern Three-toed, 12, 123, 130
 Pileated, 11, 22, 44, 74, 82, 123
 Red-bellied, 12, 22, 23, 45, 74, 82, 123
 Red-headed, 12, 45, 74, 82, 123
 Wren,
 Carolina, 13
 House, 13, 56, 83, 125
 Long-billed Marsh, 13, 70, 83, 125
 Short-billed Marsh, 13, 83, 125
 Winter, 13, 75, 83, 125
 Yellowlegs, 80, 121
 Greater, 10, 80, 121
 Lesser, 10, 80, 121
 Yellowthroat, 15, 86, 127

M.O.U. ENDOWMENT FUND

In a previous issue of *The Loon* you were asked to contribute to the Minnesota Ornithologists Union Endowment Fund. Our campaign was most successful with over \$600.00 being added to the fund. We, of course, can use further help from each and every one of you. At a recent board meeting of the M.O.U. Officers and Club representatives, many projects were discussed and steps were taken to implement several of them. The preservation of Salt Lake is still a very live project, education programs are needed concerning our Birds of Prey and scholarships are needed by worthy students. Many of these and other types of projects can be realized with your help.

SUGGESTIONS TO AUTHORS

As you all know the editor's job is a voluntary one and to make this job a little easier and less time-consuming I would like to make a few suggestions to authors when they submit articles and notes for publication in *The Loon*.

As editor I would like to encourage people to send articles, notes and observations to me. If possible all articles and notes should be typewritten and double spaced on one side of the paper. This is the only way they can be submitted to the printer. The more material received the better the magazine will be. When submitting observations of birds, either rare, accidental, or difficult to identify please try and follow the suggestions made by Janet C. Green in her article "What Constitutes an Acceptable Bird Record," (*The Loon*. Vol. 36, No. 1, pages 4-6). If photos are submitted with articles they should be clear, *black* and *white prints*. If the author of an article would like reprints please let me know when the article is submitted. Reprints will be furnished at the author's expense. Cost of reprints depends on length of article and number wanted.

CHECK-LIST OF MINNESOTA BIRDS

The newly revised check-list of Minnesota birds is still available. This list contains 292 regular species and 23 casual species found in Minnesota. It is designed for use in the field and can be easily contained in any of the latest "Field Guides." The cost is 5¢ each plus 5¢ postage, or 50 for \$1.25 plus 15¢ postage. All members of the M.O.U. and their bird-watching friends should be using this new list.

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