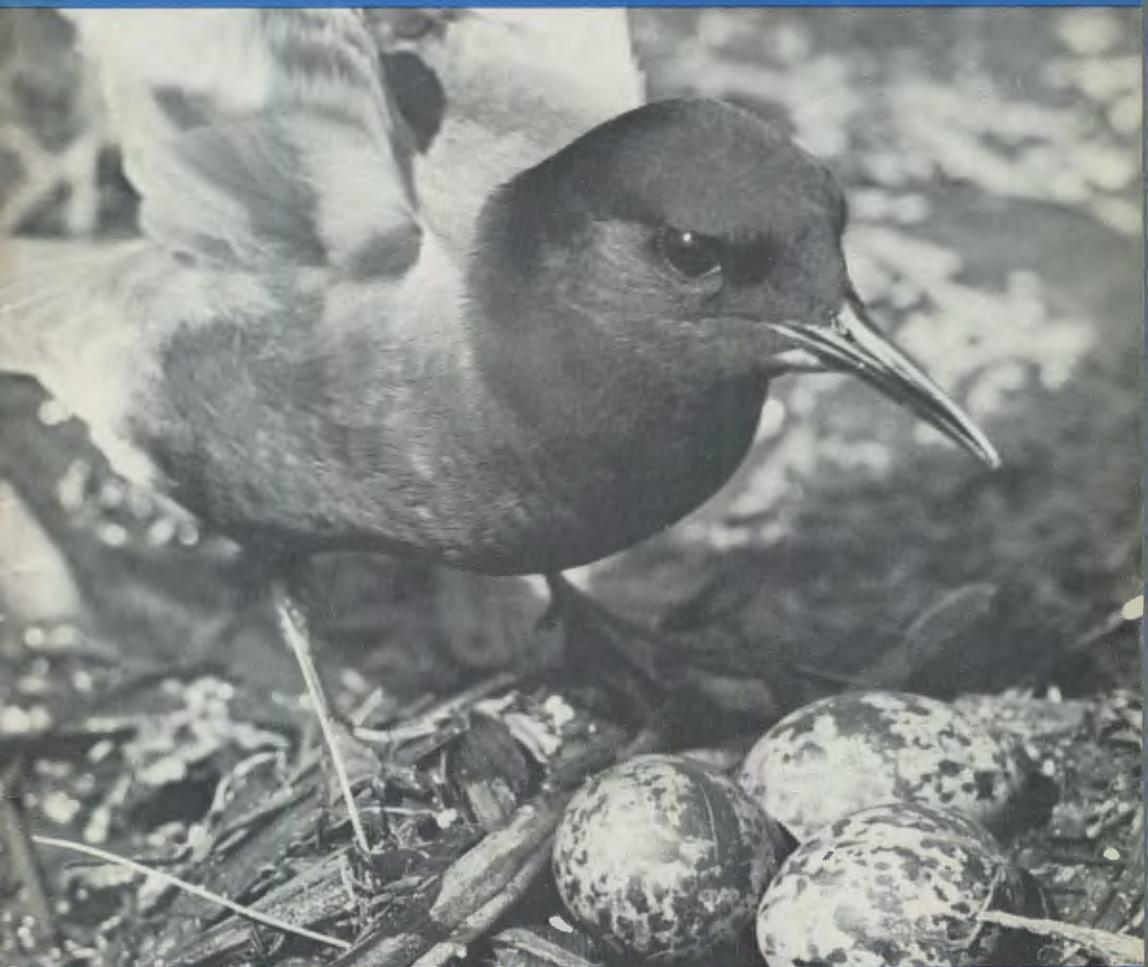


The Flicker

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THE FLICKER

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President — Forest V. Strnad, Kasson, Minnesota

Vice President — William R. Longley, Forest Lake, Minnesota

Secretary — Loes P. Scott, 514 Fountain Street, Albert Lea, Minnesota

Treasurer — Jane C. Olyphant, 4000 Hidden Bay Road, St. Paul 22, Minnesota

Editor — Robert B. Janssen, 1817 W. 59th Street, Minneapolis 19, Minnesota

Associate Editor — Dwain W. Warner, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.

FRONT COVER

Photograph by Harvey L. Gunderson of a Black Tern at nest, Washington County, Minnesota, May 29, 1954.



THE PRESIDENT'S PAGE

"Over the Back Fence"

If I could have you for a neighbor here in Kasson the chances are we would have many chats over the back fence about birds, that is, if there were a fence. All of you can't be my next door neighbor and I don't have a fence to talk to you over, so the next best thing is to chat with you about the Minnesota Ornithologists Union through this column.

As I see the Union it ought to serve all the members: the professional ornithologist, the student of ornithology and the lay person who is interested in birds as a hobby. To slant *The Flicker* and/or the Union toward any one of these groups exclusively is to exclude the others and to cut down on their interest and their moral and financial support.

In order to involve more people in the Union's activities and plans, the Policy Committee at its December meeting, preceding the paper session, and in another meeting called at the Museum by your President in January, has taken the following action.

ONE, the Committee voted to have the President appoint a Membership Chairman to work with the Treasurer to keep the membership list up-to-date and to secure new and renewal memberships. For this position I have appointed Miss Berghild Bernsten, a member of the St. Paul Audubon Society. At the January meeting the Policy Committee took a further step and voted to request each local bird club, who is a member of the M.O.U. to elect or appoint a membership secretary to work with Miss Bernsten to secure new members among the local club members and the public at large.

A new plan was presented at the last meeting for reminding our members that it is time to renew their membership. Robert B. Janssen, our editor, has had printed a number of post cards with renewal notices. One will be sent to each member at the time his membership expires, just before he receives the last issue of *The Flicker* due him. That way each member will receive only one more copy of *The Flicker* after his subscription and membership has expired. We hope through this plan to reclaim some members who might otherwise drop their membership.

TWO, the Committee voted in January to send out a newsletter to all members within the United States. It will be called the "*M.O.U. CALL NOTES*," and by the time you read this you probably will have received your first copy. The present plans call for it to be published four times a year. It will come out about midway between each issue of *The Flicker*. Miss Amy Chambers has been appointed to be the editor of the *Call Notes* this first year; Robert Janssen has agreed to get it printed for us at a minimum cost to us, and the Minneapolis Bird Club will pay for the postage on the first issue.

THREE, the Committee agreed that we should try to get this session of the Minnesota legislature to vote the Common Loon as the Minnesota State Bird. The story of our efforts may be told later after more details are available. At present your President is busy writing letters to organizations and individuals to try to carry this progress to a successful conclusion. My only hope is that we did not get started too late.

FOUR, I have appointed Mr. and Mrs. Boyd Lien as co-chairman of a Field Trip Committee. We will be hearing from them during the year, likely through the *M.O.U. Call Notes*, about trips that will entice us to leave our daily work and go birding to new areas.

I want to report to you, from time to time through this column, some of the many decisions of the Policy Committee. I feel you ought to know what this executive committee is planning for the progressive development of our Minnesota Ornithologists Union.

Since taking office as your President I have written personal letters to each bird club in Minnesota asking for suggestions for improvement of our organization. I would appreciate hearing from any individual member who has some constructive suggestions to make so that our group might serve you better, and that more of you might make a larger contribution to the Union.

Our editor, Robert B. Janssen, wants to publish more information about birds and your observations of them, but he can't unless you write the stories and send them into him. We ought to flood his desk with these stories so that he will have to choose which ones to use instead of wondering if he will have enough material to publish the next issue of *The Flicker*. If we want a magazine of ornithology to be filled with articles about birds and subjects related to birds then we will have to supply the material to our editor. If we are to have a well-balanced magazine then the professional ornithologist, the student in ornithology and the amateur birder will each have to take the time to sit down and write those interesting articles we all like to read, and then — send them in to the editor.

I feel we can and should have a closer knit organization where every member feels a part of the group and works to make each meeting and field trip a joy to attend. Not only do we get to see new habitats, new birds, but we can have the joy of making new friends and deepening old friendships.

I hope to see many of you at the "Big Day" meeting, now being planned for May 19-21 at Whitewater State Park. You will receive more detailed information about this meeting through the *Call Notes*. — *Forest V. Strnad*.

NESTING HABITS OF THE BLACK TERN

by
Jennifer Eddy

Five-thirty — A foggy, damp morning—pushing through rushes in a canoe—just a peep of early morning glow from the rising sun—a date with the Black Terns of 51 nests.

This was a typical morning visit with what came to be my family for four weeks, from June 17th to July 12th, 1960. The reason for these visits was to conduct a study as a project under the auspices of the National Sciences Foundation given in Itasca State Park by the University of Minnesota for high school teachers.

The study area was located on the north shore of Lower Bottle Lake, Hubbard County, Park Rapids, Minnesota.

Two methods were used to study the Black Tern (*Chlidonias nigra*), one by water, conducted from an 18-foot aluminum canoe, used for its maneuverability; the other a tree platform built on a hill north of the study area. Binoculars and a 30-power scope were used to determine bird territories and general movements of the birds.

The study area consisted of emergent vegetation such as bulrushes, some yellow and white water lilies with abundant cattails on the north edge. Here there were 51 Black Tern nests constructed on water which ranged from 6 to 31 inches deep. The nests were constructed differently than might be imagined. They consisted mainly of dead bulrushes which were piled up loosely around the eggs giving the nest a flimsy appearance (Fig. 1 — for illustrations, see center section). If the nests were not continually built up, within three days they appeared to have melted into the rush mat on which they were built, just as an ice cube would melt in a glass of water.

Nesting success was largely affected by wind movements. The study site, being located on the north shore of

Lower Bottle Lake, caught the force of the prevailing southwesterly winds. As a result 8 of the 51 nests were lost. Most of the nests were built on the north side of a dead rush mat held in place by new bulrush canes.

Little interspecific strife between the Black Tern and other water birds was noted, except with the Caspian Tern, Great Blue Heron and occasionally the Red-necked Grebe.

The terns, a colony of 51 pairs and their young, inhabited a territory approximately 600 x 1000 feet. The territory the male tern inhabited and defended during nesting season covered about a six to seven foot radius from the nest. He would defend this area against the other Black Terns but allowed Redwinged Blackbirds to venture almost three feet from the nest without any apparant alarm.

The average clutch consisted of three (Fig. 1) which were a variety of colors, usually an olive or buff with brown flecks more numerous toward the distil end (Fig. 2). The eggs averaged in size from 24 to 31 mm.

It was of particular interest to note that the adult terns have very similar markings. The sexes cannot be differentiated, both sexes participate in building the nest, incubating the eggs, feeding the young, and protecting the area. This is in contrast to Mallards and many other birds, for with these the male and female are easily identified, and after the eggs are laid, the female does the incubating and caring for the young.

The eggs hatch in about 17 days with the embryo pecking its way out of the egg with its egg tooth (Fig. 2), a calcareous whitish structure located on the upper mandible. Within an hour and a half from the time the chick begins pecking, the distil end of the egg is pecked off, and the young Black Tern starts to emerge. This

emerging process takes about one hour. The emerged young are wet, precocial, web-footed, barely able to lift their heads (Fig. 3) and their eyes are open. In an hour the chicks bodies are dry and fluffed with down. The egg shells are picked up by the parents, who fly off a short distance and drop the pieces into the water.

For several hours after hatching the young terns did not move when the nest was approached. A warning from their parents caused them to freeze, and their brown bodies with black markings blended in quite well with the surroundings. Only the white mask about the eye region gave them away.

When the nests were again approached three hours later, the young terns immediately hurried from the nest and swam into nearby vegetation but froze when approached within three three feet. When picked up to be identified or tagged, they could be quite defiant. Meanwhile the parents were continually scolding, diving and sometimes striking the authors head.

Tracing the territories of the young terns presented a problem which was solved in the following manner. The young less than a day old were sprayed lightly on the posterior with colored spray paint. Their activities could then be traced for about ten days before the young molted. Unless disturbed the young terns, up to two weeks old, spent most of the time in the nest.

One morning while observing one particular nest with a 30-power scope from the canoe it was noticed that the young would move to the edge of the nest and defecate into the water, thus keeping the nest clean.

During the first four days the young were brooded during the day hours a great deal of the time. Brooding slackened gradually up to nine days after which brooding was discontinued. During the heat of the day, four or five day old chicks spent much of their time standing or squatting by one parent while the other parent fed them from the air. The first sign of preening was at five days. The pri-

maries were just beginning to develop on th four-day olds, and the egg tooth was gone by the fifth day (Fig. 5).

The feeding of the young was begun several hours after hatching, and both parents participated. The greatest share of the food for the young terns was gathered within 75 feet of the nest. The diet consisted mainly of damselflies, dragonflies, mayflies and caddisflies, as fell as a few minnows.

The hunting parent flew above the vegetation, hovered occasionally, then dropped downward quickly to pick an insect from a stem or a leaf. The bird then rose and flew directly to the nest. It dropped to the nest momentarily, or merely hovered a fraction of a second, to feed on chick and then flew away to find other insects.

Parental care of the young terns nine to eighteen days old apparently continued as with the young zero to eight days old. The only difference was in the time spent covering the nest.

Toward the end of the study the author observed two young which were 21 to 22 days old. When approached, they both took to the air. They could be distinguished from the adults by their faster wing beat and lighter grayish body color; the adult tern has a black body and head with grayish wings.

The colony of Black Terns were seemingly active throughout the day but would lessen activity and become quiet during the night. They seemed to be restless birds, nearly always on the wing flying here and there.

A "dusk flight" occurring shortly after sunset was observed on three occasions. The terns would become silent for a moment and then rise (except for some brooders and incubators) together high into the air with loud calling and continue to circle the area. This would go on for perhaps four or five minutes, and then the flock would break up, tern by tern, or in pairs, and glide back to the nesting area. — *Bemidji State College, Bemidji, Minnesota.*

SEASONAL REPORT

by

Mary Lupient

The temperature was mild throughout the state during November except for the last few days of the month when a blizzard occurred everywhere but in the area around the Twin Cities. It dumped 12 inches of snow in Duluth and other northern sections. The weather in December was about normal. January was unseasonably mild for the first twenty days after which the temperature dropped to 15 degrees below normal during the last ten days. Up to date of this writing, February 1, very little snow fell in the Twin Cities and adjacent areas.

Don Perchukin, manager of the Mud Lake National Refuge, Marshall County, reported that Whistling Swans stayed there until the second week of November. There were approximately 250 the fourth week in October.

About 25 Canada Geese were present in Ramsey County December 10 seen by A. C. Rosenwinkel and 20 stood on the ice in Ramsey County January 17, seen by this writer. A very large flock was again spending the winter in Rochester.

Water adjacent to the Black Dog plant on the Minnesota River was open and a goodly number of Mallards and two Black Ducks were there all season.

Don Perchukin sent the following report from Mud Lake National Refuge, dated November 14. The peak waterfowl population occurred the second week of September, 126,550. Peak population of Canada Geese was 15,000, Mallards 42,550, Gadwalls 10,970, American Widgeons 71,740, Pintails 2,670 and Green-winged Teal 13,100. Diving ducks peaked at a much lower population this season, 2,040 this fall compared to 10,750 last fall.

Mr. Perchukin reported that Red-tailed Hawks were common and Rough-legged Hawks fairly common. A few Red-tailed, Rough-legged, Sharp-shinned and Sparrow Hawks

hunted over the Minnesota valley in Scott County during the season. This writer saw one Goshawk in the area January 14. Dr. A. E. Allin observed an immature Red-tailed Hawk in Cook County, January 15.

Because it is uncertain as to whether the Bald Eagle is declining in numbers the National Audubon Society is making a survey of the population under the direction of Mr. Alexander Sprunt who has requested this writer to send him reports. Please send your records to the author. To date the following was received, three Bald Eagles in Washington County November 20, Dean Honetschlager; a pair of Bald Eagles raised one young, summer of 1960, in Mud Lake National Refuge and left in late October, Golden Eagles arrived in late October and were seen occasionally all season, Don Perchukin; three Bald Eagles observed every day during the season along the St. Croix River, Washington County, Paul Lengafeld, record sent by Boyd Lien; 25 adult Bald Eagles all in one flock soared over the bluffs along the Mississippi River near Bay City, Wis., which is across Lake Pepin from Minneota, They were seen from a helicopter by Capt. James R. Miller, December 20, 1960; five adults and two immatures were seen six miles south of Hastings, Dakota County, December 26, 1960, Dan Janzen; the last two records were received from Dr. D. W. Warner; one adult reported by Mrs. Sarah Wangenstein near Prescott, December 14, 1960; eight were seen near Red Wing and below along the Mississippi River, December 12, 1960, Walter Jiracek; two seen daily during season at Camp Ripley, Morrison County by Bernard Fashingbauer.

About 1,500 Sandhill Cranes were observed in Clay County October 15 by Mrs. Margaret Lachore. Don Perchukin stated there were about 700 in Mud Lake National Refuge the first week in October.

Some shorebirds were still present by November 1. An unusual number of Common Snipes was seen by Lee Jaques October 27. He stated there was a flock of about 100 in Washington County.

An exceptionally large number of Mourning Doves remained this season. Mrs. E. W. Joul reported 29 in Scott County January 1; 35 were counted by the Minneapolis Bird Club on their Christmas Census in Hennepin County; 15 remained all winter in Washington County near Marine-on-St. Croix reported by Dean Honetschlager; there were other reports of small numbers seen by several observers during the season.

A Snowy Owl was seen November 13 in the outskirts of Minneapolis by Virginia Stanton and Betty Copeland. One fell down into the coal bin at Bryant Junior High School, Minneapolis, November 17. The Animal Rescue League was called to get it out who said that it was injured so they could not release it and it was destroyed. For several weeks a Snowy Owl lived on the roof of Williams Arena, University of Minnesota, probably feeding on the numerous pigeons in the area. February 6 one perched for several hours on the tip of a flag pole over Northrup Auditorium. It may have been the same bird. A Short-eared Owl was sighted December 26 in Washington County by Dean Honetschlager who saw a Yellow-shafted Flicker in the same area. Two Yellow-shafted Flickers were seen in Ramsey County by A. C. Rosenwinkel January 14. There were several reports of Red-headed Woodpeckers. One Yellow-bellied Sapsucker was recorded by the Minneapolis Bird Club on their Christmas Count. Two Red-breasted Nuthatches were seen January 14 in Ramsey County by A. C. Rosenwinkel.

According to reports Blue Jays were exceptionally abundant in southeastern Minnesota probably due to a good crop of acorns.

Don Perchukin reported from Mud Lake Refuge that Black-billed Magpies were common during the season.

Several large flocks of Common Crows roamed about in the area ad-

acent to the Twin Cities. Mrs. W. C. Olin reported a flock of about 300 in Ramsey County.

There were several reports of Tufted Titmice that frequented feeders in the Twin Cities and residential areas along the Minnesota and St. Croix Rivers.

Four Robins were reported in Cook County by A. E. Allin, January 15. Boyd Lien stated that four Robins were listed on a Christmas Count taken along the Mississippi River in Hennepin County. He also listed an Eastern Bluebird at the home of Mrs. Deister, Afton, Washington County.

There were on reports of Bohemian Waxwings but there were 417 Cedar Waxwings at Afton for a Christmas Count by Boyd Lien. In Minneapolis near Lake Nokomis there was a small flock of Cedar Waxwings, January 13.

A mixed flock of about 200 Common Grackles and Redwinged Blackbirds spent the season near Savage, Scott County.

Most observers reported the scarcity of Purple Finches.

There was only one report of Pine Grosbeaks which was received from Dr. A. E. Allin. He said that they were very abundant in Cook County but only six Evening Grosbeaks were observed in that area, January 15. In Virginia, Mrs. Roy Pottsmuth reported 15 at her feeder all of January and in Itasca State Park Mrs. Joseph Mockford had 200 at her feeder.

American Goldfinches, Pine Siskins and Common Redpolls were reported in small flocks. This writer saw a small flock of White-winged Crossbills November 4 in Scott County and a flock of 20 Red Crossbills was reported in Ramsey County by R. E. Cole, November 15.

About 25 Snow Buntings were reported in Scott County by Virginia Stanton. This was the only record so far for the season.

A White-throated Sparrow spent part of the winter at the home of Florence and Lee Jaques, Ramsey County. It survived the unseasonable cold spell and then disappeared the last week in January. — 212 Bedford Street S.E., Minneapolis, Minnesota.

THE MINNESOTA BIRD BANDERS

Banding Returns and Recoveries — 1960

by

Gary C. Kuyava

Bird-banding in Minnesota yields a great deal of information to further the ornithology of the state. One of the most valuable and exciting rewards is the recovery of a band.

The recovery of a band is divided into three classifications. 1. *Return*—the retrapping of a bird alive at the original banding station at least 90 days after it was last trapped. These will be found in Table No. I. 2. *Recovery*—the discovery of a dead banded bird anywhere. These will be found in Table No. II. 3. *Foreign retrap*—The retrapping of a banded bird away from the station where it was originally banded. These will be found in Table No. III.

Included in this report are the results of the compilation of the records of ten of Minnesota's 45 banders. They are identified in the tables by the numbers in the "Banders" column.

1. Robert R. Cohen — Duluth
4. Harold Hanson — Walker
5. Dr. P. B. Hofslund — Duluth
6. Carl M. Johnson — Rochester
7. Gary C. Kuyava — Duluth
8. Elizabeth Leach — South St. Paul
9. Jane Olyphant — St. Paul
10. Orwin Rustad — St. Paul
11. Forest Strnad — Kasson
12. Mud Lake National Wildlife Refuge — Holt

All towns, parks and lakes are in Minnesota unless otherwise indicated. A key to the symbols in the "How" column of Table No. II is as follows:

- F.D.—bird found dead
- B.F.—only band found
- C.H.—Bird caught in hand
- N.F. — Mist Net fatality

By consulting *The FLICKER*, "The Minnesota Bird Banders," Vol. 32, No. 2, pp. 48-55, it is quite easy

to see what type of banding yields the greatest number of returns. This is the banding of colonial nesting species. As an example of the value of colony banding, in 1959, Forest Strnad banded 236 Cliff Swallows at Whitewater State Park colony. In 1960, at least 38 of these returned to the colony and were re-netted by the bander. By direct contrast, this author banded 352 Slate-colored Juncos in 1959. In 1960, only one of these returned!

Another type of colony banding is being conducted at Knife River, Minnesota, by Dr. P. B. Hofslund and the Duluth Bird Club. This type depends upon the recovery of the banded bird rather than its return to the colony. Of the 3028 Herring Gulls banded from 1950 to 1958, 81 recoveries have been reported. By analyzing these Dr. Hofslund has been able to determine that these birds: 1. Move to the east end of the Great Lakes at the end of the breeding season. 2. In their movements, these birds follow waterways almost exclusively. 3. Southern wandering seems to be limited to those birds which reach the Atlantic Coast. 4. Wandering is most pronounced in the younger and/or non-breeding birds. 5. Mortality is greatest among birds of the year. For further details of this study see Hofslund, *BIRD-BANDING*, "Fall Migration of Herring Gulls from Knife Island, Minnesota" Vol. 30, 1959, pp. 104-114.

While colony-banding is a most valuable type of banding when analyzing directly the returns and recoveries, a surprisingly small amount is done in Minnesota. What of the colonies of Black Terns, Great, Blue Herons, and Bank Swallows, only to mention a few? or the individual bander a valuable contribution can be made by seeking out and banding as many of them as possible.

What of the other birds banded in Minnesota? Are they a waste of time as well as bird bands. No, certainly not. Simply finding them in a certain area on a certain date is a valuable record in itself. However, by consulting the tables and *The FLICKER*, previously cited, it is obvious that very few of them are ever heard from again once they leave the banding station. Several things can be done to make their being banded more worthwhile. Among these are measurements

of the wing, tail, tarsus and bill. The body weight to a tenth of a gram along with the time the bird was trapped. Additional notes can be taken on the state of the plumage, moult and parasites if any are observed. Studies can be made of daily inter-trap movements as well as daily weight fluctuations.

Banding as it is in Minnesota does and will continue to yield a great deal of valuable data.

TABLE I

Species	Bander	Date Banded	Locality Banded in	Date Returned
Mallard	12	9-30-59	Holt	9-15-60
Yellow-shafted Flicker	11	7-17-59	Kasson	4-26-60
	11	9-8-59	Kasson	4-28-60
Red-headed Woodpecker	9	5-28-60	St. Paul	11-9-60
	9	6-17-60	St. Paul	10-18-60
Hairy Woodpecker	11	1-9-60	Kasson	11-23-60
	9	10-5-59	St. Paul	11-20-60
	9	11-12-60	St. Paul	6-22-60
	9	11-19-60	St. Paul	10-18-60
	9	12-11-59	St. Paul	10-18-60
	9	1-4-60	St. Paul	10-18-60
	9	1-5-60	St. Paul	11-26-60
Downy Woodpecker	9	10-15-59	St. Paul	6-29-60
	9	10-17-59	St. Paul	5-3-60
	9	12-8-59	St. Paul	7-12-60; 11-11-60
	9	1-18-60	St. Paul	6-28-60
	9	1-31-60	St. Paul	6-30-60
	9	5-23-60	St. Paul	10-1-60
	11	11-21-57	Kasson	1-2-60
	11	11-21-57	Kasson	1-27-60
	11	1-18-58	Kasson	1-16-60
	11	1-18-58	Kasson	1-27-60
	11	1-24-58	Kasson	3-26-60
	11	2-8-58	Kasson	1-9-60
	11	2-16-58	Kasson	1-16-60
	11	3-1-58	Kasson	1-9-60
	11	1-10-59	Kasson	1-16-60
	11	1-13-59	Kasson	1-2-60
	11	1-31-59	Kasson	11-23-60
11	3-21-59	Kasson	1-16-60	
11	7-24-59	Kasson	7-16-60; 11-23-60	
11	10-31-59	Kasson	1-27-60	
11	11-28-59	Kasson	1-2-60	
Traill's Flycatcher	6	6-16-59	White Bear Lake	5-30-60
Bank Swallow	11	6-25-58	Kasson	6-22-60
Cliff Swallow	11	6-19-58	Whitewater State Park	6-26-60
	11	6-20-58	Whitewater State Park	7-2-60
	11	6-20-58	Whitewater State Park	6-26-60
	11	6-20-58	Whitewater State Park	6-26-60
	11	6-20-58	Whitewater State Park	6-28-60

TABLE I (Continued)

Species	Bander	Date Banded	Locality	Banded In	Date Returned
	11	6-24-59	Whitewater	State Park	6-30-60
	11	6-24-59	Whitewater	State Park	6-26-60
	11	6-24-59	Whitewater	State Park	7-2-60
	11	6-24-59	Whitewater	State Park	6-26-60
	11	6-24-59	Whitewater	State Park	6-26-60
	11	6-24-59	Whitewater	State Park	6-30-60
	11	6-24-59	Whitewater	State Park	7-1-60
	11	6-24-59	Whitewater	State Park	6-30-60
	11	6-24-59	Whitewater	State Park	6-27-60
	11	6-24-59	Whitewater	State Park	6-26-60
	11	6-24-59	Whitewater	State Park	6-26-60
	11	6-24-59	Whitewater	State Park	6-26-60
	11	6-24-59	Whitewater	State Park	6-28-60
	11	6-24-59	Whitewater	State Park	6-26-60
	11	6-24-59	Whitewater	State Park	6-30-60
	11	6-24-59	Whitewater	State Park	6-26-60
	11	6-24-59	Whitewater	State Park	6-27-60
	11	7-8-59	Whitewater	State Park	6-27-60
	11	7-8-59	Whitewater	State Park	7-1-60
	11	7-8-59	Whitewater	State Park	7-1-60
	11	7-8-59	Whitewater	State Park	6-26-60
	11	7-8-59	Whitewater	State Park	6-26-60
	11	7-9-59	Whitewater	State Park	6-27-60
	11	7-9-59	Whitewater	State Park	6-26-60
	11	7-9-59	Whitewater	State Park	6-26-60
	11	7-9-59	Whitewater	State Park	6-28-60
	11	7-9-59	Whitewater	State Park	6-30-60
	11	7-9-59	Whitewater	State Park	6-26-60
	11	7-9-59	Whitewater	State Park	6-26-60
	11	7-9-59	Whitewater	State Park	6-26-60
	11	7-10-59	Whitewater	State Park	7-1-60
	11	7-10-59	Whitewater	State Park	6-26-60
	11	7-10-59	Whitewater	State Park	6-26-60
	11	7-10-59	Whitewater	State Park	6-28-60
	11	7-10-59	Whitewater	State Park	6-27-60
	11	7-10-59	Whitewater	State Park	6-26-60
	11	7-10-59	Whitewater	State Park	7-2-60
	11	7-10-59	Whitewater	State Park	6-30-60
Blue Jay	11	12-8-57	Kasson		5-20-60
	11	5-12-58	Kasson		5-25-60
	11	5-30-59	Kasson		5-6-60
	11	6-18-59	Kasson		6-4-60
	10	9-24-59	St. Paul		5-11-60
	10	8-19-59	St. Paul		6-26-60
	10	9-6-59	St. Paul		6-26-60; 10-10-60
	4	11-28-57	Walker		3-31-60
	8	7-1-60	South St. Paul		10-7-60
	8	7-7-60	South St. Paul		10-29-60
	8	7-14-60	South St. Paul		11-3-60
	8	7-18-60	South St. Paul		11-16-60
	8	7-24-60	South St. Paul		11-9-60
	9	5-2-60	St. Paul		10-17-60
	9	5-18-60	St. Paul		10-24-60
	9	6-13-60	St. Paul		10-17-60
	9	6-30-60	St. Paul		11-19-60
	9	7-25-60	St. Paul		11-30-60
Black-capped Chickadee	6	2-1-59	Rochester		2-14-60
	6	5-14-59	Rochester		4-17-60
	6	6-21-59	Altura		4-17-60
	6	10-2-59	Rochester		4-16-60
	7	11-16-57	Duluth		4-7-60

TABLE I (Continued)

Species	Bander	Date Banded	Locality Banded in	Date Returned
	7	7-27-59	Side Lake	1-9-60
	7	7-27-59	Side Lake	1-9-60
	7	11-14-59	Duluth	3-5-60
	9	10-3-59	St. Paul	7-6-60
	9	10-3-59	St. Paul	2-29-60
	9	10-3-59	St. Paul	6-30-60
	9	10-5-59	St. Paul	5-23-60; 9-4-60
	9	10-5-59	St. Paul	10-19-60
	9	10-8-59	St. Paul	2-12-60; 9-21-60
	9	10-12-59	St. Paul	2-20-60; 11-16-60
	9	11-8-59	St. Paul	2-24-60
	9	1-12-60	St. Paul	11-21-60
	9	1-18-60	St. Paul	11-11-60
	9	1-18-60	St. Paul	11-17-60
	9	2-4-60	St. Paul	12-29-60
	8	8-20-60	South St. Paul	11-27-60
	10	9-25-60	St. Paul	1-1-60
	10	8-30-59	St. Paul	1-1-60
	11	11-21-57	Kasson	11-8-60
	11	11-8-58	Kasson	1-2-60
	11	4-1-59	Kasson	1-11-60
	11	9-1-59	Claremont	1-8-60
	11	10-31-59	Kasson	1-27-60
	11	11-12-59	Kasson	4-18-60
	11	11-14-59	Kasson	1-2-60
	11	11-15-59	Kasson	1-13-60
	11	11-20-59	Claremont	1-8-60
	11	11-24-59	Kasson	1-8-60
	11	11-24-59	Kasson	1-14-60
	11	11-28-59	Kasson	1-1-60
White-breasted Nuthatch	11	11-11-57	Kasson	2-15-60
	11	1-16-59	Kasson	2-15-60
	11	5-16-59	Kasson	5-5-60; 11-18-60
	11	11-24-59	Kasson	3-3-60
	9	10-1-59	St. Paul	5-8-60
	9	10-5-59	St. Paul	11-26-60
	9	10-7-59	St. Paul	5-7-60; 11-14-60
	9	10-8-59	St. Paul	3-3-60
	9	10-9-59	St. Paul	3-4-60
	9	10-10-59	St. Paul	11-5-60
	9	10-12-59	St. Paul	5-11-60; 11-6-60
	9	10-19-59	St. Paul	10-20-60
	9	10-25-59	St. Paul	5-21-60
	9	11-11-59	St. Paul	11-13-60
	9	11-21-59	St. Paul	10-29-60
	9	1-20-60	St. Paul	9-27-60
	9	7-16-60	St. Paul	11-3-60
	9	7-25-60	St. Paul	11-10-60
House Wren	9	5-13-60	St. Paul	8-23-60
Catbird	11	7-6-59	Whitewater State Park	6-27-60
	11	7-7-59	Whitewater State Park	6-30-60
	11	7-8-59	Whitewater State Park	6-30-60
	4	6-23-58	Walker	6-1-60
Robin	11	6-23-59	Kasson	5-26-60
	11	7-17-59	Kasson	4-16-60
	7	4-3-59	Duluth	8-2-60
Veery	7	6-16-58	Duluth	7-23-60
Starling	11	6-6-60	Kasson	12-16-60

TABLE I (Continued)

Species	Bander	Date Banded	Locality	Banded in	Date Returned
Red-eyed Vireo	7	6-10-59	Duluth		8-6-60
Yellow Warbler	6	5-30-59	White Bear Lake		6-12-60
	6	6-21-59	White Bear Lake		5-30-60
	7	6-5-58	Duluth		8-6-60
Yellowthroat	6	5-30-60	White Bear Lake		5-17-60
	6	7-19-60	White Bear Lake		5-17-60
	6	8-1-59	White Bear Lake		6-12-60
Redwinged Blackbird	4	5-30-57	Walker		5-1-60
Common Grackle	11	7-18-58	Kasson		5-30-60
	11	4-18-59	Kasson		6-4-60
	11	5-26-59	Kasson		5-22-60
	11	6-9-59	Kasson		5-26-60
	11	6-17-59	Kasson		7-15-60
	11	6-18-59	Kasson		5-20-60
	11	6-22-59	Kasson		5-26-60
	11	8-23-59	Kasson		5-15-60
	11	5-24-59	Walker		7-20-60
Brown-headed Cowbird	7	5-19-58	Duluth		5-6-60
	7	7-1-59	Duluth		5-6-60
Evening Grosbeak	4	2-5-58	Walker		1-12-60
	4	2-2-58	Walker		4-21-60
	4	2-21-58	Walker		4-21-60
	4	12-13-59	Walker		3-25-60
	4	12-17-59	Walker		4-21-60
	4	2-17-59	Walker		3-9-60
	4	12-29-59	Walker		4-6-60
Purple Finch	7	4-26-58	Duluth		5-12-60
	7	5-17-59	Duluth		5-17-60
	7	5-16-59	Duluth		5-12-60
	7	5-17-59	Duluth		5-12-60
	7	5-17-59	Duluth		5-12-60
	7	5-18-59	Duluth		5-12-60
	7	5-26-59	Duluth		5-12-60
Slate-colored Junco	11	11-23-59	Kasson		3-12-60
	9	1-7-60	St. Paul		10-22-60
	9	1-7-60	St. Paul		10-22-60
	9	1-7-60	St. Paul		11-23-60
	9	1-7-60	St. Paul		12-7-60
	7	12-12-59	Duluth		3-31-60
	6	11-10-56	Rochester		4-11-60
	6	12-15-58	Rochester		3-21-60
Field Sparrow	6	9-28-58	Rochester		4-17-60
	6	6-10-59	Altura		8-14-60
Song Sparrow	7	4-23-58	Duluth		5-5-60
	7	8-14-58	Duluth		8-6-60
	7	4-16-59	Duluth		4-15-60

TABLE II

Mallard	11	12-4-58	Rochester	5-4-60	Owatonna	F.D.
	11	12-4-58	Rochester	6-14-60	Rochester	F.D.
	11	12-4-58	Rochester	6-20-60	Rochester	Shot
	11	12-10-59	Rochester	6-3-60	Rochester	F.D.
Least Sandpiper	11	8-27-58	Altura	5-28-60	Greenville, Ala.	Shot
Herring Gull	5	6-16-51	Knife River	8-7-60	Knife River	F.D.
	5	6-12-54	Knife River	5-16-60	Duluth	F.D.

TABLE II (Continued)

Species	Bander	Date Banded	Where Banded	Date Found	Where Found	How
	5	6-12-54	Knife River	7-?-60	Cornucopia, Wis.	B.F.
	5	6-12-54	Knife River	4-25-60	Duluth	F.D.
	5	6-11-55	Knife River	4-21-60	Duluth	F.D.
	5	6-11-55	Knife River	6-21-60	Marquette, Mich.	F.D.
	5	6-11-55	Knife River	5-22-60	Ashland, Wis.	F.D.
	5	6-9-56	Knife River	6-14-60	Duluth	F.D.
	5	6-9-56	Knife River	5-6-60	Duluth	F.D.
	5	6-8-57	Knife River	9-19-60	Wiggins Pt. Mich	F.D.
	5	6-8-57	Knife River	6-11-60	Ontonagon, Mich.	F.D.
	5	6-19-59	Knife River	9-13-60	Macatawa Mich.	F.D.
	5	6-19-59	Knife River	8-4-60	Thorold, Ont.	F.D.
Common Tern	7	7-7-60	Leech Lake	9-20-60	Belize, Brit. Hon.	C.inH.
	7	7-7-60	Leech Lake	7-30-60	Whipholt	F.D.
Mourning Dove	11	5-19-59	Kasson	7-2-60	Kasson	F.D.
Barred Owl	7	4-10-60	Duluth	6-15-60	Duluth	F.D.
Yellow-shafted Flicker	11	7-25-59	Kasson	5-17-60	Kasson	F.D.
Downy Woodpecker	11	4-4-60	Kasson	5-1-60	St. Paul	F.D.
Tree Swallow	5	6-26-57	Duluth	5-18-60	Duluth	F.D.
Purple Martin	11	7-4-60	Kasson	7-29-60	Kasson	F.D.
Blue Jay	7	11-22-59	Duluth	5-10-60	Duluth	F.D.
Black-capped Chickadee	11	10-20-59	Kasson	4-11-60	Kasson	F.D.
	11	10-20-59	Kasson	4-11-59	Kasson	F.D.
	11	11-20-59	Claremont	2-1-60	Claremont	N.F.
White-breasted Nuthatch	11	11-13-57	Kasson	4-8-60	Kasson	F.D.
Robin	11	5-23-60	Kasson	6-11-60	Kasson	FD.
Starling	11	1-4-60	Kasson	4-13-60	Kasson	FD.
	7	2-23-57	Duluth	4-10-60	Forest Center	F.D.
	7	1-15-58	Duluth	4-17-60	Duluth	F.D.
	7	12-15-58	Duluth	2-18-60	Duluth	F.D.
	7	12-12-59	Duluth	4-6-60	Duluth	F.D.
	7	12-16-59	Duluth	2-10-60	Duluth	F.D.
Rusty Blackbird	7	10-3-59	McGregor	1-1-60	Vincent, Alabama	Shot
Common Grackle	11	6-4-59	Kasson	6-23-60	Kasson	Shot
	11	7-19-60	Kasson	8-10-60	Kasson	F.D.
	10	5-15-60	Frontenac	7-26-60	Menomonee Wis.	Shot
	1	2-9-58	Duluth	6-16-60	Duluth	F.D.
Brown-headed Cowbird		8-2-58	Duluth	5-16-60	Duluth	F.D.
Evening Grosbeak	4		Walker	?	Deer River	?
	4		Walker	?	Ottawa, Canada	?
	4		Walker	?	Vienna, Virginia	?
	4		Walker	?	Graceton	?
White-throated-Sparrow	10	3-6-60	Northfield	5-6-60	Northfield	?
Song Sparrow	1	9-18-59	Duluth	4-14-60	Duluth	F.D.
	7	6-26-60	Itasca Park	8-14-60	Itasca Park	F.D.

TABLE III

Mallard	12	9-1-51	Horicon, Wis.	9-15-60		
	12	7-12-58	Gull Lake	1-10-60	Walker	Trap
	12	12-15-55	Ware, Illinois	2-23-60	Walker	Trap
	12	2-24-59	Smyrna, Del.	9-30-60	Walker	Trap
	12	12-13-58	Lebanon, Tenn.	9-30-60	Walker	Trap
Blue-winged Teal	12	8-26-60	Manitoba, Canada	9-26-60	Walker	Trap
					Walker	Trap
Evening Grosbeak	4	1-28-58	Midland, Mich.	?	Duluth	Trap
	4	2-11-58	Hartford, Conn.	?	Holt	Trap
	4	1-12-59	Bethel, Vt.	?	Holt	Trap
	4	1-8-59	So. Londonderry, Vermont	?	Holt	Trap
	4	2-14-59	Marquette, Mich.	?	Holt	Trap
	4	3-17-59	Midland Mich.	?		
	7	3-8-59	Lansing, Ont.	5-13-60	Holt	Trap

MINNESOTA'S 1960 CHRISTMAS CENSUS

by Ronald L. Huber

General Considerations: The 1960 Christmas Count was definitely deficient in Common Redpolls, with only 42 tallied for the state. The Great Blue Heron occurred for the third time in the past five yearly counts. The Oldsquaw and Glaucous Gull were conspicuously absent from the Duluth census. Yellow-shafted Flickers were seen by seven of the thirteen participating groups, including Duluth. Robins were generally scarce, except at Duluth, where an exceptional total of 102 were seen. The Afton group counted fifteen Great Horned Owls; probably the highest single-group total for that species ever realized on a Minnesota Christmas census. They also observed the Yellow-bellied Sapsucker for the second time in the past five Christmas counts. Also unusual was the report from Miss Monica Misho of the St. St. Cloud group that the Ruby-crowned Kinglets were seen for the second consecutive census.

The Yellow-headed Blackbird on the Excelsior count was apparently the third Minnesota winter record for that species, and the Brewer's Blackbird by the same group was unusual (last reported on Christmas census of 1957). Suburban St. Paul N.E. reported two Killdeers, the second Christmas count occurrence for that species during the past five years. 1960 saw the highest Cardinal total during the past five counts, while Brown Creepers were not generally abundant. The Afton group saw a Fox

Sparrow, previously unreported on the last five censuses, and Cedar Waxings were seen by nine of the thirteen participating groups with a total of 688 individual birds (a new high total for the past five censuses).

Pintails were seen by the Excelsior and St. Paul South groups, the first Christmas census report of this species since 1956. After a two-year absence from the counts, the Gray Partridge was seen again; this time by the Moorhead group. The only Red-breasted Nuthatch on the 1960 count was recorded at Rochester. The Brown-headed Cowbird seen by the Excelsior group was the first report for the last five counts.

Statistics: Excelsior, Afton, Rochester, St. Paul North, and N.E. Suburban St. Paul enjoyed a more successful Christmas census than they have usually had during the past five years. Others, notably Duluth and Minneapolis West, have fared less well than usual. The state as a whole, however, had its best year of the past five, viz.: the total number of individuals for the 1960 Christmas census was 30,695, a new high for the past five years. In fact, discounting the entire total of House Sparrows recorded on the 1960 count, the total would still be higher than the 23,824 individual birds of the 1959 census.

The statistics for the past five censuses are summarized in the following chart:

	1960	1959	1958	1957	1956
Total No. groups participating	13	16	17	12	9
Total No. individual birds seen	30,695	23,824	18,789	13,320	10,574
Average No. individuals per group	2,361	1,489	1,105	1,110	1,174
Average No. species per group	28.7	23.5	23.1	24.9	22.4
No. groups with 35+ species	4	1	1	1	0
No. groups with 30+ species	6	3	3	4	1
No. groups with 3000+ individuals	4	3	1	1	1
No. group with 2500+ individuals	6	3	1	2	1
Total number of observers	138	111	151	83	56
Total number miles traveled	2,115	1,711	1,866	953	783
Total number species observed	80	79	82	70	66

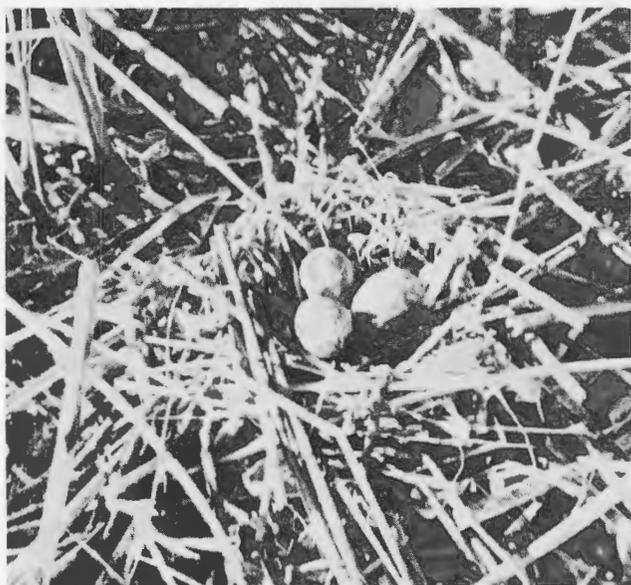


Fig. 1. Average clutch size of a Black Tern's nest. Note loosely built construction of nest.



Fig. 2. Egg marking
Tern emerging from



Fig. 4. Two day old Black Tern chick, freshly picked up from the water. Note webbed feet, down, eyes, and egg tooth.

NEST BLAC TERN

by Jennife



gs plus young Black
egg. Note egg tooth.



Fig. 3. Two young Black Terns one and two hours old with one egg just hatching.

TING
CK
IS
er Eddy



Fig. 5. Eleven day old Black Tern chick. Note primary and secondary wing growth.

Review:

Duck and Geese: Ten species seen in 1960 count, as compared with 12 in 1959, and seven on each of three previous counts. Many ducks in Twin Cities area were forced out by a sudden cold snap just before the count. Most of the local lakes were frozen over and the ducks probably retired to Blackdog Lake, just south of Minneapolis. However, heavy steam on the water's surface made identification very difficult. Canada Geese were very concentrated at Rochester as usual. The Blue Goose was last reported on the 1957 census. The Snow Goose was the first one reported on any of the last five counts. Five-year total: 17 species.

Vulture, Hawks and Eagles: Eight species seen in 1960 census, compared with a high of 11 species in 1958 (the 12th, a Broad-winged Hawk, has since been subjected to some skepticism), and a low of 5 species in 1956. Five-year total: 12 species (13 if the Broad-winged Hawk was included).

Gallinaceous Birds: Four species in 1960, also in 1957; low was 2 species in 1959. Five-year total: five species.

Shorebirds: Two species seen in 1960 census; same two species seen in 1958. These two, the Common Snipe and Killdeer, constitute the five-year total.

Gulls: Only one species reported on 1960 census, as compared with four in 1958 and three species on each of the other three counts. Herring, Ring-billed and Glaucous (see note of interest in this issue) Gulls were loitering in the Twin Cities area, but they, like the ducks, were forced out by the cold spell. Five-year total: four species; the same four seen in 1958 (included Ivory Gull).

Owls: Six species on 1960 census, compared with high of seven in 1959 and only four in 1957. An amazing five-count total of ten species. (All but the Barn Owl and Burrowing Owl). This is something to boast about, since there are only twelve species found regularly in the Eastern United States.

Woodpeckers: Seven species seen on 1960 count; the same seven were also seen in 1957 and constitute the

five-year total. Six species in 1959, 1958 and five in 1956. This was an excellent winter for the Yellow-shafted Flicker, judging from the widely scattered reports, and the Red-Headed Woodpecker was more abundant than usual (N.E. Suburban St. Paul saw 22 of them).

Corvids: Only three species in 1960 as compared with four in 1959, 1958, 1957. A high of five species in 1956 included Black-billed Magpie. For the first time in the past five counts, the Gray Jay was not seen. Five-year total: five species. (See page 28.)

Chickadees and Kinglets: For the first time in the past five years, no Boreal Chickadees were seen on the Christmas census. Red-breasted Nuthatches reached a new low over same period; they are usually recorded by at least several groups. Both species of kinglets were observed. Five-year total is eight species (two kinglets, 2 nuthatches, 2 chickadees, Brown Creeper, and Tufted Titmouse).

Thrushes and Mimic Thrushes: Four groups reported Robins during 1960 census, all in the eastern part of the state. Of special interest was the high concentration at Duluth. Past years have included Eastern Bluebird, Catbird, Brown Thrasher, and Mockingbird, for a five-year total of five species.

Waxwings: Both species observed; Cedars had highest total in past five counts, Bohemians at lowest. Five-year total: two species.

Blackbirds: Six species in 1960, four in 1959, 1958, three species in 1957 and zero in 1956. Meadowlarks were absent after previously occurring on three of the last five counts. Five-year total: eight species.

Fringillids: Sixteen species in 1960 as compared with sixteen in 1959 and fourteen during other three counts. Red Crossbills reported for second consecutive census; White-throated Sparrow for the fourth, and Song Sparrow has been reported on all five. Other years have seen Hoary Redpolls, Lapland Longspurs, and Harris' Sparrow for a five-year total of nineteen species.

The following is a list of species seen on the 1960 Christmas census.

	Afton	Duluth	Moorhead	Mpls. North	Mpls. West	Rochester	Cedar Creek	St. Cloud	St. Paul N.	Plainview	N.E. Sub St. P.	Excelsior	St. Paul S.	Total
Great Blue Heron	1													1
Canada Goose						2571								2,571
Blue Goose						1								1
Snow Goose						1								1
Mallard	300					10		724			9	825	900	2,768
Black Duck	2	2								1			3	8
Pintail												1	3	4
Wood Duck						1			2					3
Lesser Scaup													1	1
Common Goldeneye	321	58		126		21		200	3		1		145	875
Common Merganser	18			8						4	1			31
Goshawk												1		1
Cooper's Hawk											1			1
Sharp-Shinned Hawk	1					1				1			1	4
Red-tailed Hawk	2			1	1	2			1	6	10	8	4	35
Rough-legged Hawk	3	2		3	1	2						5		16
Bald Eagle										3				3
Marsh Hawk				4		3		2			1			10
Sparrow Hawk	1		1	4	7	1			1			4		19
Gray Partridge			29											29
Ruffed Grouse		1					4		2					7
Sharp-tailed Grouse		3												3
Ring-necked Pheasant	1	5	28	20	58	20	2	16	2	39	62	31		284
Common Snipe												1		1
Killdeer											2			2
Herring Gull	1	41										1		43
Mourning Dove	38			35	1	4		2	6		21	3		110
Screech Owl			1											1
Snowy Owl		2						1					1	4
Great Horned Owl	15				1	2		2				3		23
Barred Owl					1	2		2	1		1			7
Long-eared Owl					1									1
Short-eared Owl											1	1		2
Belted Kingfisher	1			1		2				1			2	7
Yellow-shafted Flicker	3	2			1		2	2		1		3		14
Pileated Woodpecker	2			1		1	1	2	1	1	2	7		18
Red-bellied Woodpecker	14			1		14				10	7	14		60
Red-headed Woodpecker	3			1			6		2	11	22	5		50
Hairy Woodpecker	12	9	6	3	6	14	2	4	4	3	20	37		120
Downy Woodpecker	26	36	10	13	20	39	12	7	6	9	28	70	6	282

	Afton	Duluth	Moorhead	Mpls. North	Mpls. West	Rochester	Cedar Creek	St. Cloud	St Paul N.	Plainview	N.E. Sub St. P.	Excelsior	St. Paul S.	Total
Yellow-bellied Sapsucker	1													1
Blue Jay	133	33		259	116	54	71	17	32	45	152	239	8	1,151
Horned Lark												15		15
Common Raven		2												2
Common Crow	39	4		79	29	54	1	14	30	11	646	48	10	901
Black-capped Chickadee	126	71	64	52	69	64	49	19	55	50	98	243	14	974
Tufted Titmouse	4					5					2	3	1	15
White-breasted Nuthatch	49	11	8	26	25	64	5	10	14	17	51	111	12	403
Red-breasted Nuthatch						1								1
Brown Creeper						1			2		3	6	1	13
Robin	2	102		1						1				106
Golden-crowned Kinglet						1			5			3		9
Ruby-crowned Kinglet								2						2
Bohemian Wawing	1	15												16
Cedar Waxwing	417	157	1	22	22	1		9	11		50	20		688
Northern Shrike							1	1			1			3
Starling	381	722	12	752	266	268	6	17	35	222	670	366	65	3,772
House Sparrow	1072	4004	266	930	1249	218	63	85	210	115	260	2041	220	10,729
Redwinged Blackbird				25					2	75		30		132
Yellow-headed Blackbird												1		1
Rusty Blackbird										12	50			62
Brewer's Blackbird												1		1
Common Grackle						7			6			3		16
Brown-headed Cowbird												1		1
Cardinal	60	1		8	15	54		6	8	61	9	87	5	314
Evening Grosbeak		355							10					365
Purple Finch	109	41		7		3		9	25			44	2	240
Pine Grosbeak		32						26						58
Common Redpoll		5						24	12			1		42
Pine Siskin		17							11		40	42		110
American Goldfinch	16			109	36	106	16		3		1	56	6	349
Red Crossbill									35					35
White-winged Crossbill		62												62
Slate-colored Junco	125	7	1	72	254	88	3	24	34	18	102	253	8	989
Oregon Junco	2				1		1		1			4		9
Tree Sparrow	54			84	63	210	23		7	165	176	601	30	1,413
White-throated Sparrow					1						1			2
Fox Sparrow	1													1
Song Sparrow					1					1				2
Snow Bunting	73	8	32								75			188
Total Individuals	3430	5806	489	2636	2245	4626	268	501	581	843	2553	5271	1478	30,697
Total Species	39	30	13	29	25	37	18	24	35	23	34	43	23	80

THE CANADIAN LAKEHEAD

by

A. E. Allin

The mean temperature during 1960 was 37.0° compared with a normal of 36.8°. Precipitation of 23.88 inches was well below our 30-year average of 30.48 inches. The 42.6 inch snowfall was the lowest in recent years and compared with a normal 93 inches. Sunshine of 2249 hours compared favorably with 2100 hours in 1959. October's mean temperature of 42.3° was slightly below the normal 42.6°; the precipitation of 3.18 inches was nearly a third above normal but there were 138 sunshine hours and only 88 in 1959. November was a dull month with only 63 hours of sunshine, yet the precipitation was only 2.61 compared with a normal 2.0 inches. The temperature of 37.1° was well above the normal 34°. The first traces of snow fell on October 18. The smaller lakes were frozen by October 27. Whitefish Lake was freezing over on October 29 but was not entirely frozen until November 10. December was a very cold month, the mean of 8.8° being well below the normal 13.7°. The month was very dry with a precipitation of .41 inches compared to the usual 1.92 inches. We received an amazing 128 hours of sunshine.

The more we study nature, the more hesitant we become in trying to interpret her ways. Perhaps the average September and October, and the unusually warm November explains the presence this winter of so many species which we ordinarily consider summer residents. Certainly the severe weather of December resulted in Thunder Bay freezing earlier. By Christmas, the Bay was completely frozen and open water for ducks and gulls was reduced to that in the rapids of the larger rivers. The scanty snowfall has left the taller weeds exposed. The White Spruce produced the best cone-crop in years. Manitoba Maples and Black Ash bore relatively good seed crops and the Mountain Ash trees in the cities and in the country are laden with fruit. This

profligacy of nature may explain the excellent birding not only for winter residents and visitants but also for several species generally considered summer residents. The Autumn Willow was a very prominent feature of the fall scenery in 1960 and many queries were received as to its identity.

Loons to Bitterns: A Great Blue Heron was present as late as November 21. Although this is one of our earlier spring migrants, this is a very late fall record.

Swans, Geese and Ducks: Whistling Swans occur in small numbers every spring. At least 3 were reported during the summer but once again we had no reports of a fall migration. Our only fall records were two shot in mistake for Snow Geese on Whitefish Lake a few years ago. The flight of geese was heavy; the majority appeared to be Canadas. Migration commenced in late September and continued until October 23. Most unusual was a flock of small Canada Geese flying over Pigeon River on November 27.

In general, the duck migration was very poor but there was evidently a very heavy flight of Lesser Scaup the week of October 20. Unusual numbers of ducks were present in the local harbor due to it being closed to hunting. A large flock of Lesser Scaup was present on November 13. On the same date Mrs. Hogarth reported Oldsquaws at Amethyst. On November 23 we estimated there were at least 400 Black Ducks and 200 Mallards in the harbor. They left on December 1. Pintails remained until October 28. We saw 18 Green-winged Teal on October 30 and four on November 2. Not a single Redhead was seen in the area during 1960.

Vultures, Eagles and Hawks: In the last *Flicker* we referred to the heavy flight of Rough-legged Hawks. The

movement apparently commenced about October 16 when 7 were seen. At least 50 were reported by Club members on October 23. Only two were seen on October 27, three on November 3 and one on November 6. Our last record was one seen near Whitefish Lake on November 22. Other hawks were relatively scarce. Once again we had a winter record for the Pigeon Hawk; the Denis's saw one on January 1. The Allins watched an immature Red-tailed Hawk being "dive-bombed" by a Common Raven, north of Grand Marais, Cook County, on January 15. It will be recalled we saw an immature Red-tailed Hawk near Fort William, February 14, 1960. It is a very rare winter resident of this general region. A Goshawk was seen in Port Arthur on January 15. The Osprey was a surprise absentee from the list of birds seen at the Lakehead in 1960.

Upland, and Marsh Birds: Although Ruffed Grouse were common in some areas, there is no doubt their numbers declined from 1959. Spending about the same number of hours in the field we saw 27 Ruffed Grouse in 1959 and only 14 in 1960. One of these, shot on November 22, had a beautiful seal-brown ruff. This is the second occasion I have seen a bird of this color. It is much rarer than the copper-ruged birds which we see once or twice each fall. Sharp-tailed Grouse occurred in their usual small numbers locally but an irruption of the northern race is reported across the northern portion of the Province. Gray Partridge are uncommon; the covies are small. A few Ring-necked Pheasants persist near Hymers.

American Coots were very common. We saw 20 on Whitefish Lake on November 5, a late date. Most unusual was our observation of a single bird at the mouth of Cloud River on November 27.

Shorebirds, Gulls and Terns: Mrs. Knowles brought us a freshly-killed Common Snipe on October 27. Mrs. Peruniak again reports a Common Snipe wintering at Atikokan where she listed it on the Christmas Census taken on December 28. Fewer shore-

birds were seen than in 1959 and apart from the snipe none was seen after October 23. K. Denis reported a Ring-billed Gull on December 9. This is one of our few winter records which is surprising in view of their regular occurrence, in recent years at least, at Grand Marais. Probably due to ice conditions, Herring Gulls were absent from our Christmas Census for the first time since 1946.

Doves and Owls: Rock Doves continue to increase in numbers due to the unlimited food available at the elevators and along the railroads leading to the grain storage areas. The 1126 seen on the Christmas Census far exceeded the 893 counted in 1953 which was our previous maximum. The status of the Mourning Dove continues to change. In addition to becoming an uncommon summer resident, a few remain as winter residents. The first such record was December 26, 1954. Mrs. Knowles reported a Mourning Dove on January 5, and two on January 15 at Rosslyn and again on January 29.

More owls than usual have been reported in recent months. Short-eared Owls were first seen on September 27. A few were seen subsequently. Our last record was for November 20 when we saw two in Neebing Township. Mrs. Atkinson reported a Long-eared Owl at Dorion on October 31. This species is rare at the Lakehead. Mr. Hartley frequently heard a Barred Owl in October and picked up a primary to confirm its identity. We reported a trapper taking a Saw-whet Owl at Schreiber in December, 1959. Last December he caught a Boreal Owl under similar circumstances. Dorothy Allin saw the first Hawk Owl on November 3; Mrs. Peruniak reported one at Atikokan and another was seen near Lake Nipigon in the late fall. J. Lowcock reported one west of Fort William on January 5. There is a moderate flight of Snowy Owls in the Lakehead area. We saw the first of these visitors in November perched on a duck-blind on Lake Superior. At least 12 were reported in November and December.

Woodpeckers to Horned Larks: Neither of the Three-toed Woodpeckers was reported in 1960 locally, although Mrs Pruniak saw both species in Quetico Park. Hairy and Downy Woodpeckers are very common. The 16 Hairys reported on our Christmas Census is only exceeded by the 19 seen in 1955 and the 22 Downys by the 28 recorded on the census of 1958. Very unexpected was a Yellow-bellied Sapsucker seen by C. Garton on December 13. November 5 was a late date for a Horned Lark.

Jays to Wrens: The Blue Jay continued to be a common winter resident. During the past 10 censuses we averaged 25 Blue Jays per census whereas from 1939 to 1949 we averaged four. Peculiarly 48 were seen on the 1950 census. Gray Jays are present in their usual numbers. One flock of 8 Common Crows is wintering near the Mission and a few others are scattered through the area. The 17 recorded on the census was the highest since 1939 when we were less familiar with the Common Raven but when many fur-farms provided more food for scavengers than is now available. Common Ravens are still abundant although the 60 seen on the census compared poorly with the 137, 181 and 108 seen in 1957, 1958 and 1959. It is certainly a common winter resident throughout this general region, including Northeastern Minnesota. A Black-billed Magpie was trapped in early December, west of Whitefish Lake, our second specimen. Mrs. Peruniak listed one on her Atikokan census as did Mrs. Howe at Dryden, 200 miles west of Fort William.

Black-capped Chickadees are very common but Boreal Chickadees are scarce. We failed to list them on our Christmas Census for the first time since 1947. Mrs. Peruniak saw two at Atikokan. The White-breasted Nuthatch is a rare resident. One pair are wintering at Fort William. After an absence of five years, Red-breasted Nuthatches were again listed on our census. On January 21, K. Denis and the Robbs reported a Brown Creeper at a Rosslyn feeding station. This is apparently our second winter record.

The Long-billed Marsh Wren is a rare summer resident of this general area. Several years ago K. Denis heard one in Quetico Park and in 1959 we observed one or two in Sibley Park. Mrs. Peruniak reported one near Atikokan on September 29.

Thrushes to Shrikes: Once again Robins are wintering at the Lakehead in numbers. The Robbs saw 25 in Chippewa Park on December 26. The Cedar Waxwing is another summer resident remaining in numbers. A few small flocks have been seen and on January 28, K. Denis and the Robbs saw a flock of one hundred. Bohemian Waxwings were reported earlier in the season at Winnipeg and Dryden but our only local records are flocks of 50 and 200 which we saw north of Pigeon Riven in January 15, and two in the large flock of Cedar Waxwings. Northern Shrikes have been rare. One was seen October 10, one on December 9 and a third on December 26. Starlings are very abundant. In the cities their principal food appears to be the fruit of the Mountain Ash. Here they feed in relatively large flocks. In the country, they occur in very small groups about the farm buildings. Starlings have the peculiar habit of sitting on chimneys and other house outlets, presumably gaining some warmth from such positions.

Blackbirds: Our first Rusty Blackbirds were seen at Whitefish Lake on October 10. One was still present in Fort William on October 30 and we saw it again on November 11. Mrs. Beckett kept a Brewer's Blackbird under observation from December 2 to December 8. On December 26, the Robbs found a flock of 15 Redwinged Blackbirds feeding in a corn patch in Neebing Township. This is our third winter record for this species. A Common Grackle in Port Arthur was another unusual winter record.

Grosbeaks, Finches, Sparrows and Buntings: Evening Grosbeaks were relatively scarce all fall but are now fairly common and widely distributed. They have been observed feeding on the seeds of Manitoba Maples, on Mountain Ash berries and on the fruit of an ornamental crab. Much of

their food seems to be obtained at feeding stations; in many instances the operators complain they cannot afford the vast amount of sunflower seeds consumed by these beautiful birds. We did not see Pine Grosbeaks until November 27. Subsequently they appeared in great numbers and throughout January were common in both the cities and in the surrounding country. Again their favorite food seems to be the Mountain Ash fruit and there is no need as yet for them to turn to secondary choices.

A few Pine Siskins are present as well as small flocks of Common Redpolls. A surprise of the winter has been the presence of numbers of Purple Finches. These are uncommon winter visitors which were reported on the Christmas censuses of 1947, 1948 and 1954. They probably depend on the Mountain Ash for food although they fed for some time in the same ornamental crab tree as the Evening Grosbeaks, Cedar Waxwings and possibly Pine Grosbeaks. The fruit on this tree was very small. Does this explain why these species concentrated on this tree and neglected adjacent trees which bore a larger apple? While there was a major movement of both crossbills in August, they were not particularly common in fall and early winter. Our only Red Crossbills were the 20 seen on October 10. A few small flocks of White-winged Crossbills have been recorded included 15 on the Christmas Census, the third census on which we have listed them.

Although the presence of the Yellow-bellied Sapsucker, the Common Grackle and the three species of Blackbirds was unusual, members of the *Fringillidae* provided even greater surprises. We discussed above the presence of Purple Finches. Mrs. Beckett reported a White-throated Sparrow in her yard from November 7 to November 21. We saw a Tree Sparrow on December 24 and 26. There is one recent February record and one was listed on our 1947 census. The Slate-colored Junco has been seen on five Christmas Censuses — a total of eight birds. On December 26, 1960, six were reported and others have been seen in various areas. They had not been common during fall migration; the peak of their abundance was the week of December 16-23 but at no time did we see more than 25 Juncos on a single day. The greatest surprise of the winter, however, has been the presence at the Empire Elevator of three Song Sparrows. First seen on December 10, they were still present on January 29, following a week of extreme weather when the temperature dipped nightly to about 20 below zero.

November 5 was a late date for a Lapland Longspur. It was associating with 15 Snow Buntings. The latter first appeared on October 20. K. Denis reported immense flocks at that time. A few were still present until the end of December. — *Regional Laboratory, Ontario Department of Health, Fort William, Ontario.*

NOTES OF INTEREST

RING-BILLED GULL NESTING IN MINNESOTA — While banding Common Terns on Tern Island in the southern end of Leech Lake, Cass County, Minnesota, July 8, 1960 a single gull egg was found. The egg was "pipped" with the bill of the young gull visible; the young bird had obviously been dead a day or more and was quite odoriferous. The entire egg was saved and preserved in formalin. Measurements are 61.5 x 41.5 millimeters. This compares to the extreme measurement presented by Bent (*Life Histories, N. A. Gulls and Terns*, Bull. U. S. Nat. Mus. 113, 1921) of 64.5 to 54.0 millimeters in length and 44.5 to 40.0 millimeters in width for 40 Ring-billed Gull eggs. The width measurement falls below the lowest extreme of this measurement (45 mm.) for 45 Herring Gull eggs.

The colors of the bill of the young were compared with Kodachrome slides of newly hatched Herring and Ring-billed Gulls kindly loaned us by A. A. Allen of the Laboratory of Ornithology, Cornell University. The newly hatched Herring Gull chick has but a small light colored patch on the top of the upper mandible near the tip, whereas comparable aged Ring-billed Gulls have the entire tip of both mandibles lightly colored for several millimeters.

Roberts (*Birds of Minnesota* 1932) reported a slight record, unverified, of a pair of Ring-billed Gulls nesting on rocky cliffs near Cross River, Cook County, June 4, 1905 by L. O. Dart. Roberts rejected this record because it was not verified and was in contrast to the normal nesting site of the species. This Leech Lake record lends no creditability to Dart's observation, but indicates the Ring-billed Gull may nest in such small numbers they are overlooked. No Ring-billed Gulls were identified on the trip to Tern Island, although a number of large gulls were seen, at least some of which were Herring Gulls. — *Robert W. Dickerman and Eugene Lefebvre, University of Minnesota Museum of Natural History, Minneapolis, Minnesota.*

* * *

BARN OWL RECORD FOR 1953 — While reading in the September, 1960 *Flicker* of several Minnesota Barn Owl records I was reminded of an incident in August, 1953. I was vacationing at the Lutsen Resort on the north shore of Superior. One evening after dark we heard strange noises coming from the lakefront and we thought it was some teen-agers playing on the beach. The next morning we learned the noises were caused by a Barn Owl which later roosted in a tree close by a cottage where the waitresses were quartered. During the night the cries of the owl alarmed the girls and the proprietor, Mr. Nelson, shot the owl. The next evening at dusk another Barn Owl was seen coursing over the grassy area behind the resort. That night it met the same fate as the first owl. These were the only Barn Owls I have ever observed but the dead bird was unmistakable. — *Woodward H. Brown, 4815 Ingersoll Avenue, Des Moines 12, Iowa.*

* * *

NORTHERN VISITANTS TO THE TWIN CITY AREA — On December 4, 1960, Ray Glassel observed a large white gull on the Minnesota River near the Blackdog plant, Dakota County. He felt that the gull was either a Glaucous or an Iceland Gull. I returned with him to the area that same after-

noon and we easily located the bird by its white wingtips when it took flight from the river. It was in the company of many Herring and a few Ring-billed Gulls. The bird's bill was flesh-white with a small dark blotch and proportionally larger than the bill of a Herring Gull. The wingtips did not extend beyond the tail when the bird was at rest, hence we concluded that it was a second year Glaucous Gull. Except for a faint suggestion of gray on the mantle, the bird was immaculately white. Again on December 7, I observed the gull with Richard Oehlenschlager. Several later attempts to find the bird were of no avail, however.

On December 10, Harding Huber and I were observing ducks on Lake Calhoun. It was a clear day and we were checking each individual with our twenty-power spotting scope from the shore. The ducks were concentrated around and in the few patches of open water. A cursory glance showed what appeared to be Snow Geese and a Bufflehead. The scope showed domestic geese (orange bills) and a partially albino mallard with a white head-patch like a Bufflehead. Further examination showed Black Ducks, several male and female Lesser Scaup, one female Greater Scaup, a male Ring-necked Duck, two male Canvasbacks, a Common Merganser and a Hooded Merganser. Since we were missing a Shoveler reported by Bob Janssen the previous day, we decided to recheck. The Shoveler was not seen but we were delighted to find a female Oldsquaw in winter plumage. She was diving frequently at the north end of the lake, near the mergansers, and had probably been submerged during our first count of the ducks. The bird remained only the one day. — *Ronald L. Huber, 3121 Georgia Avenue S., St. Louis Park, Minnesota.*

* * *

NOVEMBER BIRDWATCHING IN NORTH-CENTRAL MINNESOTA — On November 27, 1960, Bill Pieper, Brother Theodore, Richard Oehlenschlager and the Huber brothers were birdwatching in North-central Minnesota.

Our objective was a search for the Boreal Owl in the Red Lake area. Our efforts were fruitless, however, despite careful scrutiny of evergreens, willows, outbuildings, abandoned homesteads, etc. It is probable that ninety per cent of the individuals of this species that have been reported in Minnesota have been seen by chance. Hence, the Avifaunal Club members have been viewing this situation with interest; seeking a way in which to ferret out this attractive owl in methodical, calculated fashion. This may not be possible, or perhaps it is just a matter of numerous winter trips to overcome the element of chance. Any suggestions by our readers will be entirely welcome.

The trip was not a complete failure, however, as Brother Theodore had his first look at a Black-billed Magpie in Minnesota. We observed about seven of them in Beltrami and Lake-of-the-Woods counties. Brother Theodore and Richard also had their first look at a Spruce Grouse. An adult male was sitting on the road ahead of us along the north shore of Red Lake. In the face of our rapid approach, the bird flew up into a small willow at the road's edge. He remained there quietly until we got out of the car, at which time he disappeared into the brush. We also encountered Sharp-tailed Grouse and Ruffed Grouse, the latter being extraordinarily tame in some spots of the Red Lake Game Refuge. In one instance, our car passed within five feet of one on the road's edge, and the bird held fast.

A Goshawk was seen southwest of Norris Camp, on the road to Four Towns. Common Ravens, Snow Buntings, and Common Redpolls were seen occasionally, but not with the frequency usually accorded this area at this time of year.

Near sundown that evening, on the trip home, we stopped to observe some ducks on the large lake in the middle of Bemidji. A raft of Goldeneyes several Greater Scaup (birds flushed, wing-stripe observed) and three Canvasbacks were present.—*Ronald L. Huber, 3121 Georgia Ave. So., St. Louis Park, Minn.*

* * *

WOOD DUCKS—During the last week in October and the first week in November 1960 there was a large concentration of Wood Ducks on the west arm of Lake Varnais, Ramsey County. Mr. Cathbert, who lives along the shore of the lake, called me on the telephone around the third of November telling me of the unusual numbers of Wood Ducks (120 to 150). He showed me where they came on land into his yard and the yards of several neighbors. They were eating, apparently swallowing whole, the small acorns lying on the lawns in abundance. On November 5, I again visited his home. We sat at his wide picture window for some time. Suddenly a large flock of Wood Ducks arose out of the open water between big weed patches. There were about seventy-five in the first flock. A few seconds later another flock came up from the same area and followed the first flock toward the other end of the lake. This second flock we estimated to consist of at least 65 to 70 ducks. Evidently our Wood Ducks are increasing annually. However, it seems rather surprising to see so large a concentration. About one out of eight or ten was a beautiful male adult. — *A. C. Rosenwinkel, 398 Fairview Avenue North, St. Paul, Minnesota.*

* * *

AN UNUSUAL TYPE OF RING-NECKED PHEASANT WOUND—The left legs from two different cock pheasants were sent to our laboratory for examination during the 1960 pheasant season. The birds had been shot in Redwood County on November 16, 1960, by Mr. E. H. Pinnow of St. Paul.

Each of the legs had a curious pore-like opening on it just above the heel. The leg above the pore-like opening was swollen as shown in the accompanying photograph, and also the foot.

In appearance the pore suggested an opening that might be draining glandular tissue, but examination of one leg showed that it had been penetrated by a number 6 shot which had carried feathers into the leg muscles and imbedded them there. There was no apparent infection in the leg, although it was swollen. No shot was found in the second leg. Undoubtedly it had also been shot, but the shot had passed through the leg. Imbedded feathers and a yellow substance were contained in the center of the enlarged portion of this leg. It is probable that these birds had been wounded at the beginning of the pheasant season or prior to it. They were bagged by Mr. Pinnow two weeks after the season had opened. — *Arnold B. Erickson, Minnesota Division of Game and Fish, St. Paul, Minnesota.*



BOOK REVIEW

THE WONDERS I SEE

by

John K. Terres. Lippincott

Here are unusual and fascinating incidents from the world of natural history—so unusual that I regret a little that they are presented in a grab-bag sort of way. These selections from journals or diaries, spanning a complete year, have even less of a thread running through them than such collections usually do. One can open the book anywhere and read an interesting or amusing account; it is rather a natural history *Reader's Digest*. It is a fine book to keep on the bedside table or to pick up at odd moments.

Many of the phenomena mentioned are unknown to me, such as the occurrence of "snow rollers," little cylinders of rolling snow—or information about the sleeping places of butterflies. Some of the stories make one's eyes open, and strike one as being almost incredible. For instance, Mr. Terres relates, "At one time, I had wondered why birds were not struck on golf courses by the swift-flying golf balls. I now have records of a Barn Swallow that darted into the

path of a golf ball and was killed, and of a woodpecker in flight that was struck so hard in the face by a golf ball that the ball was impaled on its beak." That last instance seems unbelievable, but I do not want to do Mr. Terres an injustice. Just a page or two later he tells of a chipmunk killing a meadow mouse and taking it home. I might find that incredible if I myself had not seen a chipmunk sitting up on its haunches eating a baby mouse as if it were an acorn.

Mr. Terres is editor of Audubon Magazine with friends all over North America and his stories range far and wide, from Florida to Northern Canada. However, the most valuable aspect of his book concerns the discoveries made at his home, for these will teach children and adults alike how many novelties can be found in one's own back yard or garden. I, for one, have made a resolution to pay more attention to the insect life going on about me. Mr. Terres makes them as appealing as his birds or mammals.
—*Florence Jacques.*

SAVE MINNESOTA'S WETLANDS PROGRAM

by

David B. Vesall

We are living at a time when major and rapid changes are taking place. Changes in our natural environment and an increasing human population should alert us all to the imminent need for sound planning and management of our basic natural resources. Although the United States has but a small percentage of the world's population it absorbs a large part of its raw materials. Water consumption in average cities in the United States is twenty-two times as high as in European cities. As the world population continues to increase at a rate of 30,000,000 per year and other coun-

tries turn more to manufacturing and mechanization, there will be even greater needs for raw materials, for us of all natural resources and for outdoor recreational areas. There is strong evidence to show that there will be increasing demands for the use of soil, water, wildlife, forests, minerals and space throughout the world as well as in our own country and state.

Since the end of World War II drainage of potholes and marshes in Minnesota has been going on at an alarming rate. Wetlands are being lost

through drainage at the rate of an estimated 5% per year with no sign of abatement in the foreseeable future. One county in Southwestern Minnesota has 91 new or essentially new legal drainage ditches which have eliminated 1,100 marshes and new ditches are pending. Another county has 109 legal ditches most of which were constructed since 1950. Plans for another ditch system call for 221 miles of open ditches and tile mains. If these plans materialize more than 575 marshes totaling 6,460 acres will be drained. These are but a few examples which indicate the seriousness of the drainage problem. It is recognized that the drainage of soggy lands is a necessary agricultural practice, but the drainage of surface waters is a "horse of another color."

In order to preserve a fair segment of our small water areas, the "Save Minnesota's Wetlands" program was started on September 17, 1951. Under this program 85,283 acres of prime wetlands in 70 different counties of the state have been purchased outright with sportsmen's funds at a total cost of \$2,674,107.67. Nine hundred and sixty-two individual tracts have been acquired in 350 different projects. The small wetland projects average about 275 acres in size. The location of state-owned wildlife management areas is shown in the accompanying map. In order to help hunters locate the projects, the Minnesota Division of Game and Fish, Section of Game, publishes and distributes a map showing the location of the state-owned public hunting grounds.

Sportsmen and conservation organizations recognize the urgency of the wetlands program. In 1957 they agreed to pay a \$1.00 sur-charge on the small game hunting license to help speed up wetlands acquisition. The major conservation organizations in the state have endorsed the program.

The primary goal of the wetlands program calls for the acquisition of 250,000 acres throughout the state. To date about one-third of the goal has been attained. If the goal is to be

realized it will have to be accomplished within the next ten years while wetlands are still available for acquisition.

At this time we are concentrating on the acquisition phase of the program. Only essential development work is being carried out. Project boundaries are fenced only where necessary and posted with "Wildlife Management Area" signs. Public access is provided. Wildlife food and cover are planted where necessary to supplement the natural habitat. Farmers living near the project areas are given agricultural leases if cropland is available. The state's share of the crop is left standing for winter feed for wildlife. The food and cover found in close proximity in wetland areas provide wildlife with ideal habitat.

In addition to the acquisition of small wetlands projects more than 50,000 acres of wetlands have been created or improved on the larger state game refuges and public hunting grounds. For example, 11,000 acres of shallow marsh was created in the Roseau Game Refuge and public hunting ground by the construction of 23.6 miles of dike.

The state wildlife areas are being heavily used by hunters. One thousand duck hunters use the 53,000 acre Roseau Project on the opening weekend. Two to three thousand duck hunters use Thief Lake in a single year. One hundred fifty-five duck hunters used the 160 acre Nelson Marsh wetland area during one season. In 1956, 380 pheasant hunters used the 490 acre Big Slough wetland project. Hunters from all parts of the state have been using the different projects. These are but a few examples of hunter use.

The "Save Minnesota's Wetlands" program is designed to conserve surface waters, to save wildlife habitat and to provide public hunting grounds. It is a multiple purpose program. Certain areas which have been acquired are worth their "weight in gold" just because of their naturalness. Many are "veritable wildlife oases" in expanses of intensively farmed land.

Our marshes abound with wildlife. They are top waterfowl production, feeding and resting areas. The excellent cover on the areas make them doubly important for pheasants. In the northwestern part of the state prairie chickens and sharp-tailed grouse frequent the wetlands. Deer, song birds and aquatic furbearers also find the habitat on wetlands to their liking.

Saving wetlands is a vital program which should be made an integral part of planning for management of

our natural resources. Acquisition, legislation, education, improvement of existing aquatic habitat and other possible methods need to be employed by resource managers in an effort to preserve a fair segment of Minnesota's surface waters. The accomplishments under the "Save Minnesota's Wetlands" program indicate that it yields the highest possible dividends for the amount of wildlife dollars invested. — *Supervisor, Section of Game, Minnesota Department, St. Paul, Minnesota.*

* * *

ADDITIONAL CHRISTMAS BIRD COUNT

The following Christmas Bird Count was received from Hibbing too late for inclusion in the general summary of the Minnesota Christmas Census starting on page 13 of this issue. The Hibbing census adds two species, the Gray Jay and Boreal Chickadee, to the total Christmas Census list. This brings the total to 82 species. The list given below should be added to the list printed on pages 17 and 18:

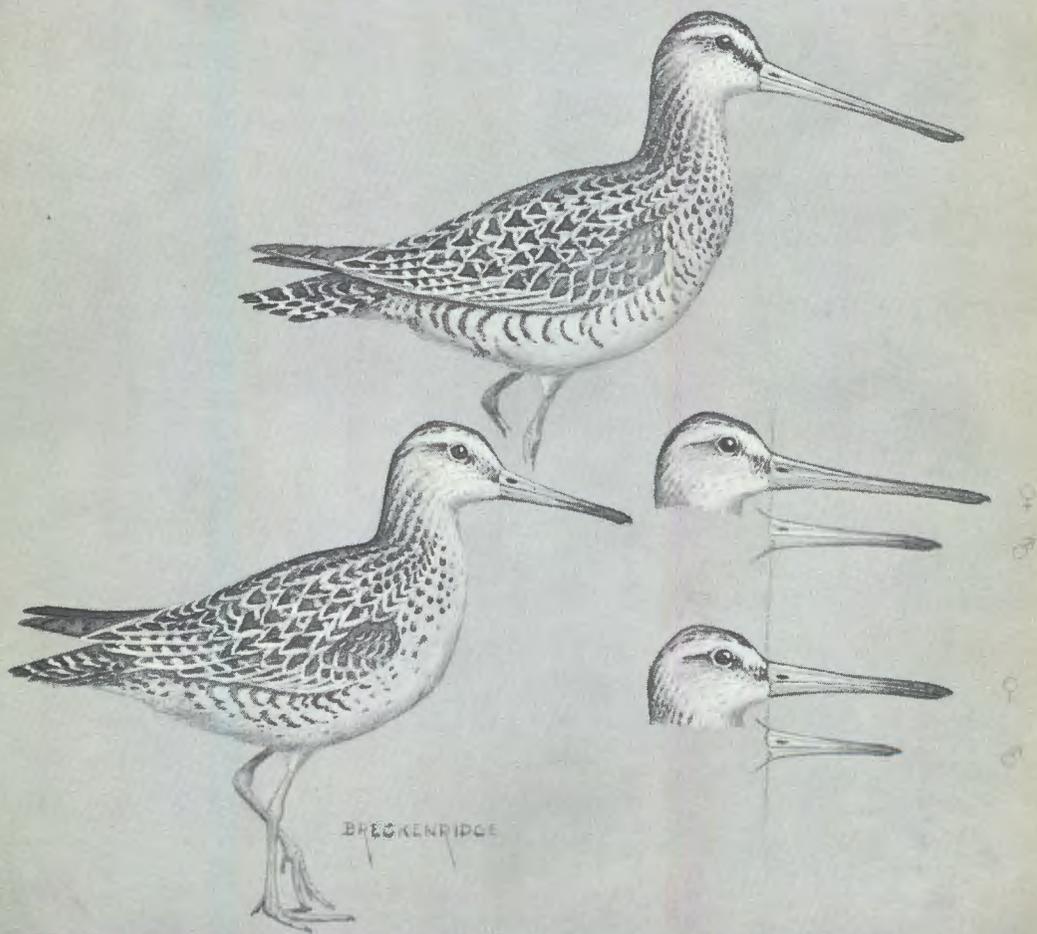
Ruffed Grouse 1, Blue Jay 25, Gray Jay 1, Common Raven 3, Hairy Woodpecker 4, Downy Woodpecker 4, Black-capped Chickadee 88, Boreal Chickadee 2, White-breasted Nuthatch 6, Red-breasted Nuthatch 10, Brown Creeper 1, Bohemian Waxwing 289, Starling 260, House Sparrow 267, Pine Grosbeak 147, Pine Siskin 3, Common Redpoll 95, White-winged Crossbill 16, Snow Bunting 110. Total—19 species, 1332 individuals. (Seen in area during count period but not on count day were — Sharp-tailed Grouse, Pileated Woodpecker, and Evening Grosbeak.)

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THE FLICKER

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President — Forest V. Strnad, Kasson, Minnesota

Vice President — William R. Longley, Forest Lake, Minnesota

Secretary — Loes P. Scott, 514 Fountain Street, Albert Lea, Minnesota

Treasurer — Jane C. Olyphant, 4000 Hidden Bay Road, St. Paul 9, Minnesota

Editor — Robert B. Janssen, 1817 W. 59th Street, Minneapolis 19, Minnesota

Associate Editor — Dwain W. Warner, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.

FRONT COVER

Original drawing of the Long-billed and Short-billed Dowitcher by Walter J. Breckenridge. See article on page 32.



THE PRESIDENT'S PAGE

The Common Loon is the Minnesota State Bird. Back of this simple statement is a story of many years of hard work by many interested and devoted people to get an official bird for Minnesota.

In the October 1940 issue of *The Conservation Volunteer*, publication of the Minnesota Department of Conservation, Mr. William Kilgore wrote an article entitled, 'Minnesota's 'Unofficial' State Bird, how it came to be selected.' Mr. Kilgore tells of being asked to suggest the name of a bird, that, in his opinion, was the best suited to bear the title of 'The Minnesota State Bird! He suggested the Goldfinch, and his reasons for the choice and the proposal that it be named the state bird were put forth in a paper entitled, 'A state flower — why not a state bird', which was published in the *Minnesota Federation News*, October 1946.

On the front cover of October 1940 issue of *The Conservation Volunteer* was an emblem of the Goldfinch, now called American Goldfinch, perched on a thistle. This emblem was carried on the publication until 1946. Mr. Kilgore gave a number of reasons why he thought the Goldfinch should be the state bird, but admitted that so far as he knew no official action was ever taken.

In 1949, by an Act of the Legislature, the State Bird Commission was established to help select a state bird. The members were: Dr. W. J. Breckenridge, Director, Minnesota Museum of Natural History, Chairman. Harvey L. Gunderson, President of the Minnesota Ornithologists' Union, vice-chairman, Milton D. Thompson, Director, Science Museum, Minneapolis Public Library, Secretary; Dean M. Schweickhard, Commission, State Department of Education; Marvin H. Anderson, State Senator, 32nd District; Leo D. Mosier, State Representative, 35th District; and Kenneth D. Morrison, Editor, *Audubon Magazine* and formerly regional representative for the Audubon Society.

In the November-December 1949 issue of *The Conservation Volunteer* the Commission issued a list of twenty birds as candidates for the state bird and invited comment from interested persons and organizations be sent to the University of Minnesota Museum of Natural History. The birds listed were: Common Loon, Great Blue Heron, Wood Duck, Osprey, Sparrow Hawk, Ruffed Grouse, Killdeer, Mourning Dove, Long-eared Owl, Belted Kingfisher, Pileated Woodpecker, Kingbird, Barn Swallow, Blue Jay, Brown Thrasher, Cedar Waxwing, American Redstart, Baltimore Oriole, Scarlet Tanager, and the Rose-breasted Grosbeak.

The Commission suggested five qualifications to help choose the state bird:

1. Since this is to be a distinctive trade mark or insignia for the state, it should be a bird which no other state has as a state bird.
2. It should be fairly well known, although not necessarily abundant.
3. It should occur throughout the state at least during the nesting season and preferably during the entire year.
4. It should be a strikingly marked bird whose pattern, even in black and white would lend itself well to use in insignia.
5. It should have some special significance for Minnesota.

In the March-April 1950 issue of *The Conservation Volunteer*, now carrying a medallion of the "Keep Minnesota Green" organization instead of the Goldfinch, Brendan J. Connelly, editor, wrote an article, entitled, "Pileated—Memorial to Surber?" He says, "Dr. Surber, it will be recalled, was among the first and most staunch supporters of the red and black plumed, pileated.

"I selected this bird because he is a permanent resident," Dr. Surber told this writer in September 1947. "He stays right here with us."

Among the noted observers who rallied to the support of the Pileated Woodpecker at this time were: Dr. W. J. Breckenridge, and Mr. William Kilgore, of the Minnesota Museum of Natural History, former backer of the Goldfinch.

The original plan called for the school children only to do the balloting for the state bird, but a change in plans opened it for interested individuals, sportsmen's clubs and other organizations. The final slate of eight of the original twenty birds submitted by the Commission included the Pileated Woodpecker, Wood Duck, Belted Kingfisher, Killdeer, Scarlet Tanager, Rose-breasted Grosbeak, Mourning Dove and the Common Loon.

Voting started on April 9th and concluded May 15th. By a rather surprising majority the school children voted for the Scarlet Tanager, the most brightly colored candidate. Adults began expressing differing views, with varying choices expressed by several groups, but with none voting for the Scarlet Tanager. All of these facts were submitted to the Legislature, who upon finding the opinions so split, took no action at that time.

In 1958 two articles were written in *The Flicker* favoring the Common Loon. In Volume 30, Number 1, Charles Flugum wrote, "Consider the Loon." In Volume 30, Number 2, Gary Kuyava wrote in the Notes of Interest, "A Case for the Adoption of the Common Loon as the State Bird." With the new year of 1959, Dana Struthers, newly elected President of the M.O.U. wrote on, "The President's Page," "The M.O.U. has endorsed the Common Loon. A committee will be appointed, and an effort made to bring sufficient pressure on the State Legislature to effect passage of a bill to formalize the Loon as the State Bird."

During that session of the Legislature the Senate passed a bill making the Common Loon the state bird, but a similar bill failed to pass in the House.

In December of 1960, following the election of officers, your President sent out letters to member clubs of the M.O.U. and other interested individuals asking for suggestions for a program of action during 1961. Dr. P. B. Hofslund of the University of Minnesota, Duluth, suggested that we work to get the Common Loon for the state bird. At the policy meeting, January 21st this action was endorsed.

In the weeks that followed your President sent out letters to member clubs, selected individuals, the heads of the Minnesota Izaak Walton League, Farmer's Union, Farm Bureau, and the Minnesota Arrowhead Association asking them to back us in this action by writing to their Senators and Representatives. Your President also contacted Mr. Paul LaPlante of Anoka to help us by contacting some member of the Legislature to help us with this matter. Letters were sent to the St. Paul Pioneer Press and the Minneapolis Sunday Tribune stating the position of the M.O.U. in regard to the Common Loon for the state bird. Many interesting replies, both pro and con were received from the letter published in the Minneapolis Sunday Tribune.

Following this action a letter was compiled by your President to be sent to the Senators and Representatives expressing the views of the M.O.U. Before it could be mimeographed and the envelopes addressed by the Albert Lea Audubon Society and returned to me, Representative Loren Rutter of Kinney, of the 60th district, introduced a bill into the House calling for the Common Loon as the state bird and the measure was passed by a two-thirds vote.

A number of letters of appreciation were received from Senators thanking the M.O.U. for the helpful information on this matter. A bill was introduced

into the Senate by Norman J. Walz of Detroit Lakes, of the 63rd district to make the Common Loon the state bird and the bill was passed by a large majority. On March 13, 1961, the bill was signed into law by Governor Elmer L. Andersen. The signing of the bill was given wide publicity by newspapers, radio and TV.

Among many articles in the newspapers expressing unfavorable attitudes toward the Common Loon as the state bird several appeared in its favor, namely: Don Morrison's article in the March 13th issue of the Minneapolis Morning Tribune, Bob Murphy's column, "Reporting at Large" in the April 2nd issue of the Sunday Minneapolis Tribune, and the front cover painting on the Picture Section of the Minneapolis Sunday Tribune, April 30th by Les Kouba and the article inside by Jack Connor.

We are very grateful to Dr. Walter J. Breckenridge, Director of the Museum of Natural History, University of Minnesota, for his beautiful painting of the Common Loon which is contained in this issue. It is indeed fitting that he should be the artist to paint this picture for our Minnesota Ornithologists' Union journal, *The Flicker*.

Now that we have a state bird, let's publicize and promote it. The Common Loon is truly a representative bird of our State of Minnesota with her more than 10,000 lakes. As members and friends of the M.O.U. we can help to promote this bird by looking for it and helping others to find and appreciate it as our Minnesota State Bird. — *Rev. Forest V. Strnad, Kasson, Minnesota.*

* * *

LOON PAMPHLET AVAILABLE

Now that Minnesota has a state bird your editorial staff has prepared a pamphlet on the Common Loon. This pamphlet contains the beautiful color plate done by Dr. Breckenridge which is contained in this issue of the Flicker. Also, in this pamphlet are three printed pages written by Dwain Warner explaining the life history of the Common Loon. The pamphlets are now printed and available for sale. The cost is \$.25 per copy; \$.20 per copy when 500 or more are ordered and \$.15 per copy when 1000 or more are ordered. All proceeds will go to the M.O.U. Treasury. The pamphlets are available from the Museum of Natural History, Minneapolis 14, Minnesota.

— The Editors

NOTES ON THE DOWITCHERS OF MINNESOTA

by

Robert W. Dickerman

The Long-billed Dowitcher (*Limnodromus scolopaceus*) and Short-billed Dowitcher (*L. griseus*) present an interesting problem to field biologists, especially those interested in the migrations and distribution of the birds of Minnesota. Although the species had been described by 1833, they were not acknowledged as distinct by the American Ornithologists' Union until 1954 (Twenty-ninth Supplemental American Ornithologists' Union Checklist, Auk. 71:331, 1954). This recognition came after the publication of Pitelka's now classic study, the "Geographic variation and the species problem in the shore-bird genus *Limnodromus*" (Univ. Calif. Publ. Zool. 50:1-108, 1950). Since the publication of that work numerous papers have delineated the local status of the two species. Richard G. Willis published an excellent popular summary of Pitelka's work in view of the records of dowitchers in Wisconsin (The Passenger Pigeon 20:95-105, 1958).

With the confused status of the two species one does not wonder that T. S. Roberts (Birds of Minnesota, 1932) combined all Minnesota records under one name, *Limnodromus griseus scolopaceus*. The problem was further complicated by the sparsity of specimens available to Roberts and an apparent variation in migration periods of the two species. Since 1950 the number of specimens of the two species in the University of Minnesota Museum of Natural History collections has increased from 8 to 35, now encompassing all of the described subspecies. These include 11 *L. griseus* and 9 *L. scolopaceus* from Minnesota.

Limnodromus griseus hendersoni. The Short-billed Dowitchers, which breed in the subarctic region from Hudson Bay west to east central British Columbia, are represented in the Minnesota collections only by specimens in breeding plumage or in early stages of the post-breeding molt. The

earliest dates for Minnesota are May 16 (Anoka Co.) and May 17 (Lincoln Co.) and the latest date is July 29 (McLeod Co.). Two males and one female taken between June 10 and 30 are apparently nonbreeding birds which were not recorded in Pitelka's study. Roberts (1932) recorded several summer records, but without specimens they cannot be assigned to either species. Pitelka listed three Short-billed Dowitchers from Minnesota (Minneapolis 1, and Lac Qui Parle Co., no locality 2). The seven specimens recorded by Willis (1958) from Wisconsin include both spring and fall migrants (May 12 and 16 and August 6 to September 9).

Limnodromus scolopaceus. The Long-billed Dowitcher, a species breeding along the arctic coastline of Alaska, is to date known only as a fall migrant in Minnesota based on specimen records. This bird has been collected between October 3 and October 27. Additional collecting will undoubtedly extend these dates and may prove that both species occur in both spring and fall. Willis (1958) listed one spring Long-billed Dowitcher taken in Wisconsin in May out of the series of seven for which data were available. Pitelka did not list any Long-billed Dowitchers from Minnesota.

Field identification of the two species is hazardous. Pitelka (1940) in his detailed study found the two species distinguishable in the breeding plumage by the more sparse and generally distributed ventral spotting of the Short-billed, contrasting with restricted spotting concentrated in a band across the upper breast in the Long-billed.* The latter species also has heavier more distinct black barring along the sides and flanks. There is variation in both of these characters but they, along with bill size (see below), will identify some spring dow-

itchers. It is interesting to note that the dowitcher in breeding plumage illustrated in "The Birds of Minnesota" shows characteristics of both species. It is sparsely spotted below like the Short-billed Dowitcher, but has heavily barred flanks and a relatively long bill as in the Long-billed Dowitcher. In the grey fall plumages, Pitelka found the two species inseparable in the field on plumage characters.

Bill length, the most obvious characteristics, is highly variable. Bills of males, as in most shore birds, are shorter than those of females. Some male Long-billed Dowitchers have bills shorter than some females of the short-billed species.* Hence, in the field only birds with extremely long or extremely short bills can be identified on the basis of bill length. Since feather pattern characters also vary greatly, only those occasional individuals wherein both bill length and plumage characters agree could be identified in the field with any degree of certainty.

It is indeed unfortunate that we must throw out all past sight records and start accumulating new information on the occurrence of the two species in Minnesota. The dates of occurrence in the State for both species span the period May 12 to November 30. It appears that the peak of the spring migration falls about the middle of May and that post-breeding birds arrive by early July, although the bulk of the migrant birds in worn breeding plumage arrive in mid-July. Dowitchers in full fall plumage, often called Grey Snipe, arrive later in the fall. — *University of Minnesota Museum of Natural History, Minneapolis, Minnesota.*

* See cover illustration. The upper figure is the Long-billed Dowitcher, the lower figure is the Short-billed Dowitcher. The upper pair of bill figures show the extreme variation between the male and the female Long-billed Dowitcher and the lower pair show the variation in the Short-billed Dowitcher.

WILD TURKEYS IN MINNESOTA

by

Don H. Ledin

(Reprint from "The Conservation Volunteer," July-August, 1959.)

"Our sportsmen club is interested in obtaining some wild turkeys to be released. Can they be raised successfully in our section of the state?" These and other similar inquiries have been coming in to the Section of Game in increasing numbers over the past year. It's quite evident that the sportsmen in the state are becoming more and more interested in raising wild turkeys as a club project. This interest may stem from the success that North and South Dakota and Wisconsin have experienced with their experimental stocking, or it may be that sportsmen are willing to take a long shot with the hope of having another game bird becoming established in Minnesota.

The following article has been written to summarize information on some of the wild turkey projects now being conducted by the Division of Game and Fish and by private individuals and sportsmen's clubs throughout Minnesota, and to explain the general habits and requirements of the wild turkey.

It is not known for certain if turkeys were ever really native to Minnesota. It seems possible from a study of early records that the wild turkey occurred in southwestern Wisconsin and central Iowa. According to Dr. T. S. Roberts in "Birds of Minnesota" they may have occurred in the extreme southern part of Minnesota along the Mississippi River and its tributaries and at the headwaters of the Des Moines River in Jackson County.

One old time logger and surveyor from Onamia reported that wild turkeys occurred on the present Mille Lacs Game Refuge and Public Hunting Grounds in Mille Lacs County in the late 1880's. Whether these were native wild turkey birds which escaped from captivity and became es-

tablished in the wild, is not definitely known.

Frank Blair, former Director of the Division of Game and Fish, is believed to have been the first man to attempt the stocking of wild turkeys in Minnesota. In 1923 nine turkeys were received at the Game Farm at Mound, Minnesota. One year later an additional 25 were obtained from Texas and 100 from Maryland and Pennsylvania. These birds were liberated in an enclosed wooded area where they mated and hatched out a considerable number of young. There were 350 at the end of the first year and 592 at the close of the second year. On February 22, 1926 approximately 250 turkeys were released by Mr. Blair in Hennepin, Ramsey, Carver, Dakota, Scott, Wright, Meeker, McLeod, Morrison, Pine, Rice and Washington Counties. Other releases were also made in Winona and Houston Counties.

Some of the birds wintered all right the first year but according to reports on this first release, the principal enemy proved to be the Raccoon. They disturbed the birds while they were roosting. It is not definitely known what happened to the rest of the turkeys released but it wasn't too many years before all the birds disappeared from the area of original release.

In September 1957—31 years after the first release another turkey experiment was undertaken by the Division of Game and Fish in the Whitewater Game Refuge and Public Hunting Grounds near Winona. Prior to the final approval of this project, Roger Latham, Pennsylvania turkey authority was asked to examine the potential turkey range in the Whitewater area. He believed the area would meet most of the requirements necessary to successfully raise wild turkeys. His one comment which led us to be somewhat cautious in undertaking this project was that in his opinion there

were too many openings and not large enough acreages of mature hardwoods—even though the Whitewater Refuge and Public Hunting Grounds is approximately 22,000 acres and consists largely of the northern hardwood and the bottom land hardwood types. Red oak, white oak, bur oak, American Elm and basswood are the most common species in this area. The topography is largely that of steep hills and long, narrow, isolated valleys.

Because the topography and the woody cover of the Whitewater region appeared to be the best in all of Minnesota, 37 adult eastern wild turkeys were purchased from the Allegheny Turkey Farm in Pennsylvania by the Division of Game and Fish at a cost of \$694.00 and were released there in September, 1957. The birds were banded and released in two groups. The first group consisted of five toms and fifteen hens and the second group of nine toms and eight hens.

The winter of 1957-58 was rather mild and the majority of turkeys came through in good condition. However, remains of six dead birds were found by July, 1958. One had been killed by a deer hunter, two had been taken by predators, and three died of unknown causes.

By September of 1958, we had received reports of several broods but we found it difficult to determine the exact size of the broods. Five broods totaling 49 birds were reported during the summer of 1958. George Meyer, Refuge Manager at the Whitewater, determined that we had a total of 75 wild turkeys going into the winter of 1958-59.

The mast or nut crop was very poor in the Whitewater Valley during the summer of 1958. Possibly as a result of the poor food conditions and an open deer season in the fall of 1958 small groups of the turkeys dispersed and were reported this past winter (1958-59) all the way from Wabasha to just south of the town of St. Charles. This represents a total dispersal distance of approximately 23 miles.

Part of the original release has returned to the Whitewater Refuge and

Public Hunting Grounds and is using the area for nesting purposes. Several broods have already been reported this year by local people in the vicinity of Elba. The town people as well as the farmers are vitally interested in these turkeys and have been most helpful in reporting their movements, size of broods and possible poaching to employees of the Division of Game and Fish.

In addition to the Whitewater release by the Division of Game and Fish numerous sportsmen clubs throughout the state have undertaken as one of their conservation projects the purchase and raising of wild turkeys. Some of the larger releases have been made by the Dilworth Hook and Bullet Club in Clay County, Big Lake Sportsmen Club in Sherburne County and the Stalker Lake Sportsmen Club in Ottertail County. More recent releases have been made by the New Ulm Lost Dog and Fox Club in Brown County, Vernon Center Sportsmen Club in Blue Earth County and Caledonia Rod and Gun Club in Houston County.

The Dilworth Hook and Bullet Club, near Moorhead and located in the prairie region of the northwestern Minnesota began their project in 1955 with the purchase of 51 wild turkey chicks at a cost of \$150.00. The birds were penned up for about one year. At the end of this time a total of 35 birds remained. The following March an additional 20 adult turkeys were purchased for \$464.00. During the summer and fall of 1956, 34 hens, 20 toms and 25 poults were released in groups of 6 to 15 in five scattered areas in Clay and Becker Counties. One of these releases was made on the Federal Tamarac Refuge in Becker County which was believed to be good habitat for wild turkeys. Hens successfully brought off broods the following spring but little is known of the status of the flock at this time.

Two additional releases of 13 and 11 respectively were made in 1956 and 1957 on the Carl Ekre farm, Hawley Township, Clay County. In these particular releases the hens began nesting in alfalfa fields and success-

fully brought off several broods. Late in the summer of 1957 one heavy old tom, unable to fly into his roosting site because of his weight, surrendered to one of the local farm dogs. During the summer 13 turkeys roosted in trees within the yard of the Ekre farm, however, just before Thanksgiving in 1957 the entire flock disappeared and never were reported again.

A similar turkey experiment was undertaken by the Big Lake Sportsman Club, Sherburne County. In this case, however, all birds purchased were adults. In May 1956, 20 adult hens and three gobblers were purchased from an organization in Utopia, Texas. The turkeys were of the Merriam strain, pen raised and considered three-fourths wild. The following year two additional adult toms were purchased and released. These birds were placed in a compound on the Ray Possehl farm seven miles northeast of Big Lake in the Sand Dune State Forest and Game Refuge.

The turkeys were hand fed part bran and part corn for a few days and then were released to wander freely around the forest. The hen turkeys proceeded to make nests and hatch young poults. Although only about 10 turkeys still are roosting in the trees along the side of the Possehl farm house, other flocks have been seen or heard in isolated areas about ten miles from the original point of release. In the late spring of 1959 one of the club members estimated that the original flock has increased to between 50 and 75 birds. Last fall on the opening day of the 1958 upland game season several over-zealous hunters eliminated seven turkeys from a flock of 17 which had been roosting on the Possehl farm.

The Stalker Lake Sportsmen Club in Ottertail County has also undertaken a wild turkey raising project. This club purchased 54 eastern turkeys from the Brookmount Farms in Pennsylvania in May, 1957. Three releases of 12 hens and six toms each were made in the vicinity of Underwood and Dalton. This area is made up largely of tracts of red and white

oak, aspen, ash and basswood. Grain crops raised in this vicinity consist of oats, wheat and barley.

Broods seem to be coming off every year but other factors such as freezing weather during the nesting season, predators and winter mortality have counterbalanced any increase in production. As a result the status of this flock indicates that it is doing little more than holding its own.

General Habits of the Wild Turkey

According to Eugene A. Walker in the December 1950 issue of "Texas Game and Fish," wild turkeys usually appear in large flocks during the period of September through December when hens and gobblers may be seen flocking separately. Also during this period young of the year—both males and females and adult hens, may be seen together. In fairly well populated turkey ranges large flocks of hens will be seen together in much smaller groups. During the winter months the turkeys tend to use the rougher or steeper terrain in heavily wooded areas where water is available.

Usually in late February or early March the turkeys begin moving away from their wintering area. The hen will seek out grassy openings for nesting and shortly after she will be joined by an old tom. Yearling toms probably do not mate. Each tom will select a harem of from three to eight hens depending on the spring sex ratio. During the breeding season the tom carries a "breast sponge" or fat pad behind his crop, which was built up from foods eaten during the late fall and early winter. The fat pad supposedly supplies the much needed additional energy needed during the courting period when his romantic intentions overcomes his interests in food. During the laying period each old gobbler travels in a very limited area and is visited every day or every other day by the hens in his harem.

Nesting begins sometime in April or May with the peak of the nesting occurring in late May or early June. Most of the young are brought off after 28 days of incubation. Near the completion of the nesting season the

old toms begin to form into small flocks; later in the summer the hens and their young will gather in their own larger flocks.

The distance that turkeys move from nesting area to wintering area varies considerably. Movements of five to eighteen miles are not uncommon. This is borne out by the movement of one flock of Whitewater turkeys which moved thirteen miles during this period.

These seasonal movements from summer to winter range by wild turkeys add to the problems of turkey management for it is necessary to have an area large enough to include both ranges. Any area less than 20,000 acres is believed to be too limited for the establishing of a fair size flock of wild turkeys.

Summary and Conclusions

The raising of wild turkeys is fast becoming the number one project of conservation clubs in many sections of the state. Over the past five years it is estimated that approximately 600 wild turkeys have been raised and released in Minnesota by the various sportsmen clubs and the State Conservation Department. Although in most cases the releases have been doing little more than holding their own, it has demonstrated that wild turkeys are capable of reproducing and surviving in southeastern, south-central and northwestern Minnesota. Generally the releases have been too few in number to evaluate their potential, but the possibility of providing a sufficient number of turkeys in one area for limited hunting purposes at sometime in the future cannot be entirely discounted at this time.

The state release, although small to begin with, is believed to have the best chance of succeeding because of the size of the Whitewater Refuge and Public Hunting Grounds. The ter-

rain, food conditions, especially mast isolation from the general public, and protection offered the birds by the refuge, all lend support to a successful establishment.

This article is written from a rather pessimistic viewpoint, and for a good reason. Sportsmen clubs with only limited funds available should not undertake raising wild turkeys with the thought that will just naturally increase and hunting will be provided in the next few years. Clubs with projects of this type are almost certainly doomed to disappointment and would be better off undertaking conservation projects of a more rewarding nature. However, sportsmen who are interested in raising wild turkeys for the aesthetic value provided may enjoy a project of this kind. Any club contemplating the raising of wild turkeys and penning them up for any length of time are required to have a game breeders license. Only certified disease free stock should be liberated in the wild to avoid possible contamination of domestic fowl and other wild birds. Wild turkeys when released in the wild become the property of the state and are protected by game and fish laws. According to our present state game and fish law the wild turkey is protected and no open hunting season is provided for this species.

The Division of Game and Fish certainly is interested in hearing from all clubs who are raising turkeys or who plan to raise them. The Division would appreciate being informed of all releases, the number of birds released, the origin of the birds, the locality of the release, the success of nesting, and the cause of any mortality. Such information can help us to better evaluate the possible place of the turkey in the Minnesota upland game bird picture. — *Section of Game, Minnesota Department of Conservation, St. Paul, Minnesota.*

THE SPRING SEASON

by

Ronald L. Huber

Weather: The weather for March, April and May was not appreciably different enough from normal to cause any immediate changes in migration. Standout weather conditions were a snow storm on April 15-16 which snarled traffic and sent migrant arrivals to feeders for survival. A. C. Rosenwinkel reports that he found these migrants very concentrated in evergreens and other warm places which were sheltered from the wind. Dr. Rysgaard, from whom it is nice to receive correspondence after a long absence of his material from the *Flicker*, reports that the storm forced many species to the ground in the Northfield area, since the only open areas were along the roadsides. Strong southerly winds on about 10 May which blew in a few unusual southern species are listed below.

General Considerations: Data was accumulated from thirty-four observers who managed to birdwatch in 31 different counties. We had anticipated a larger response, but then, too, we sent out the requests for observations at the very last moment. Perhaps in the next issue, we can have information from the rest of you who did not find time to send your Spring reports. I would like to take a line here to thank those who did contribute. Although time limitations this time precluded my personal communication with each of you, I hope that in the future I shall be able to write each of you and get to know you.

Species Reported:

Loons and Grebes: All the loons and grebes occurring in Minnesota were seen this season.

Common Loons were first reported on 4 April by A. C. Rosenwinkel in the Twin Cities area. On 5 April one was seen at Duluth by Lyle Patterson. The peak of influx was probably on 7 April when I saw one or more on each of our city lakes in Minnesota. *Red-throated Loons* were reported at Duluth from May 13 to 20 by Jan

Green. Another was seen on May 27 by R. Grant, William Pieper and the Huber brothers.

Red-necked Grebes were reported on 5 April at Duluth by Robert Ulvang and on 23 April at Graceville, Big Stone County, by William Pieper and the Huber brothers.

Horned Grebes were seen by Robert Ulvang on 5 April at Duluth. In that area, the peak of abundance was 7 May when Jan Green reported about 200 of them. On 15 April the Huber brothers saw one on Lake Harriet in Minneapolis and we saw them again on 23 April in Traverse, Wright, Big Stone, and Meeker Counties. On 21 May one was seen near Herman, Grant County by William Pieper and the Huber brothers.

Eared Grebes apparently slipped by most observers, but R. Grant observed two at Salt Lake, Lac Qui Parle County, on 20 May. He said they appeared to be building a nest. The following day, three were seen by the Huber brothers and William Pieper in the same area.

Western Grebes are abundant on Lake Traverse again this year, and they undoubtedly breed there. Members of the Avifaunal Club saw them there on 23 April and 6, 11 and 12 May. R. Grant observed a pair courting and displaying there on 20 May.

Pelican and Cormorant: Both were seen this season.

White Pelicans were seen in large numbers by the Avifaunal Club on 23 April at Lake Traverse. Again on 5 May there were ten seen in the same area by R. Grant.

Double-crested Cormorants were seen on 23 April at Lake Traverse by the Avifaunal Club. Dean Honetschlager reports one near Marine-on-the-St. Croix in Washington County on 15 April. John Hale saw them at Grant Portage, Cook County on 27 April.

Egrets, Herons and Bitterns: Eight species were reported this spring. A ninth species was added, the Great White Heron, and the second sight record for the state of the Cattle Egret was recorded.

Great Blue Heron: R. Grant reports six on nests at the Rice Lake heronry, Ramsey County on 23 March. By 4 April there were over 200 on nests. Dr. Rysgaard reports this species at General Shield's Lake, Rice County on 2 April.

Green Herons were seen 30 April near Northfield by Dr. Rysgaard, 29 April in Twin City area by A. C. Rosenwinkel and 5 May at Marine-on-the-St. Croix by Dean Honetschlager.

Great White Heron was seen 13 May (shortly after the strong southerly winds) near Elmore, Faribault County. (See Notes of Interest).

Common Egrets were not seen in large numbers, but they did seem to be widespread this spring. Seen by Dr. Rysgaard at General Shield's Lake on 2 April, by R. Grant on 13 April in Hennepin County. The Huber brothers saw them on 29 April near Frontenac, Goodhue County, 6 May near Brown's Valley at the south end of Lake Traverse and 13 May in Houston and Wabasha Counties.

Cattle Egret, the second sight record for Minnesota, was seen about halfway between La Crescent and Hokah, Houston County, on 13 May by R. Glassel, R. Grant and the Huber brothers. (See Notes of Interest).

Yellow-crowned Night Herons were recorded by the Avifaunal Club members at La Crescent, Houston County on 13 May. Seen again in same area 30 May by William Pieper.

Least Bitterns, quite often elusive, were seen on 20 May at Swan Lake, in Nicollet County, by Brother Theodore, R. Janssen and R. Glassel.

American Bitterns was seen 26 April near Northfield by Dr. Rysgaard, 30 April in Twin City area by A. C. Rosenwinkel and 6 May at north end of Lake Traverse by the Huber brothers.

Ducks, Geese and Swans: Twenty-nine species were reported this spring. None of the unusual waterfowl were

recorded, although the White-fronted Goose was seen.

Whistling Swans were first seen by the Huber brothers on 31 March at Fisher Lake, Scott County, sitting on the ice. Some open water was nearby. That same day there were several seen flying over Belle Plaine, Sibley County by the same observers. We also saw about ten at Artichoke Lake, Big Stone County on 23 April. Other reports were 8 April, Washington County, by Dean Honetschlager, 10 April at Rochester by Dr. Rysgaard, 6 April at Duluth by Jan Green and the latest report of the season, 1 May, at Duluth by Joel Bronoel.

White-fronted Goose, a bird for which there are few recent published Minnesota records and which is quite similar, at a distance, to immature Blue Geese, is one that should be identified carefully. Seven were seen, at very close range, by R. Grant on 29 April at Mud Lake on the north end of Lake Traverse. Although isolated as a group of seven, they were in the company of many thousands of Blue and Snow Geese. On 21 May, William Pieper and the Huber brothers saw what must have been the last lingering flock of geese in that area. About 100 Blue and Snow Geese passed low overhead, and we observed at least six White-fronts among them.

Snow Geese were seen by R. Grant on 7 April in Ramsey County, about 30 birds.

Blue Goose: See White-fronted Goose.

With the exception of the Northfield area, where Dr. Rysgaard reports that the waterfowl migration was very poor, the ducks and geese seem to have arrived on time and in normal concentrations. Of special interest were:

Oldsquaw, seen by R. Janssen at the Blackdog Plant, on the Minnesota River, in Dakota County on 19 March. Seen as late as 5 April at Duluth by Robert Ulvang.

White-winged Scoter seen by Jan Green at Duluth from 9 to 11 May.

Vulture, Hawks and Eagles: Of the 21 species known to occur in Minnesota, only two were not seen this season. The Swainson's Hawk seemed conspicuously absent on most of our

western Minnesota trips. The Ferruginous Hawk and Swallow-tailed Kite are of special interest.

Turkey Vulture was seen 19 April near Northfield by Dr. Rysgaard, two were seen near Frontenac on 29 April by the Huber brothers; several were seen in Winona County on 13 May by members of the Avifaunal Club; and William Pieper saw them near Reno, Houston County, on 30 May.

Swallow-tailed Kite was seen by members of Dr. Warner's ornithology class on 25 April by the Mendota Bridge on the Hennepin-Ramsey County line. (See Notes of Interest.)

Goshawk reported rebuilding an old nest at the Cloquet Forest Research Center on 15 March by Gordon Gullion. One seen near Duluth on 12 April by Robert Ulvang and again 25 May by Jan Green. R. Grant saw an adult at Itasca Park on 7 May.

Swainson's Hawk, reported only by R. Grant: two seen on 29 April near Lake Traverse and on 5 May one in the dark phase was seen in the same area.

Rough-legged Hawk was seen as late as 21 April by Jan Green at Duluth.

Ferruginous Hawk, seldom seen in Minnesota, although it may breed here, was seen by Avifaunal Club members on 18 March near Sebeka, Wadena County. Another was seen by William Pieper on 19 May near Clarksfield, Yellow Medicine County.

Bald Eagles were numerous throughout the eastern part of the state this season. (See Seasonal Report.)

Peregrine Falcons were reported by Ray Naddy on 31 March at Duluth. R. Grant saw two near Frontenac on 20 April and one at Salt Lake on 5 May.

Gallinaceous Birds: Five species were reported this season.

Ruffed Grouse were heard drumming at the Dorer Pools, Wabasha County, on 13 May by members of the Avifaunal Club. Seen on 11 May near Vasa, Goodhue County by R. Janssen.

Sharp-tailed Grouse were reported by Joe Antonio on 10 April near Embarrass, St. Louis County. R. Grant saw one in Becker County on 6 May, just south of Waubun.

Bobwhite, seem to be getting harder

to find. Brother Theodore reported them on 27 May at Ridgeway, Winona County and Harding Huber heard one on 30 May just south of Reno, Houston County.

Gray Partridge were reported 13 May at Hampton, Dakota County by R. Janssen and 20 May at Gaylord, Sibley County by R. Janssen and Brother Theodore. Two were seen near Hoffman, Grant County by members of the Avifaunal Club 21 May.

Cranes and Rallids: Seven species occurring in Minnesota were reported.

King Rails were seen 27 May at La Crescent by Brother Theodore.

Virginia Rails were "abundant" at Swan Lake, on 20 May when six were seen by R. Janssen.

Soras were also seen there on the same day.

Common Gallinules also were there on the same day.

Shorebirds: Thirty-one species were reported this season. Yellowlegs seemed quite scarce, especially the Greater. There were several reports of Dowitchers, but in only one instance was identification of species certain, being established by the call note of the birds as they took flight.

Piping Plover. Six were seen at Salt Lake by Avifaunal Club members on 6 May. Jan Green saw them in Duluth from 9 to 29 May.

American Golden Plovers were seen 6 May near Montevideo, Chippewa County by Avifaunal Club members. Jan Green reported them at Duluth on 21 April and 22 May. William Pieper saw them on 11 May near Wheaton, Traverse County. He also saw them on 16 May in Lyons, Lincoln and Yellow Medicine Counties.

Black-bellied Plovers were seen 14 May near Kimball Prairie, Stearns County by Brother Theodore. Jan Green saw them at Duluth on 24 May.

American Woodcock: Dr. Ward Tanner reported that American Woodcock were feeding in Dr. Charles Hamrun's back yard at St. Peter. A student of P. B. Hofslund's found one dead at Duluth on 8 April. R. Janssen and Brother Theodore saw one near Chaska, Carver County on 20 May.

Willetts were reported at Duluth by P. B. Hofslund's ornithology class (I believe this is the second or third record for that area) on 11 May. One was seen at Salt Lake on 5 May by R. Grant.

Knots were seen from 26 to 29 May at Duluth by Jan Green; on 27 May by P. B. Hofslund and members of the Avifaunal Club.

White-rumped Sandpipers were seen 21 May at Salt Lake by Avifaunal Club members and Jan Green reports ten of them at Duluth on 30 May.

Short-billed Dowitcher: Six were seen by the Huber brothers and William Pieper near Big Lake, east of Herman, Grant County on 21 May. Identified by call-note. Other Dowitcher reports, specific identity unknown, were 29 April at Salt Lake by R. Grant and 15 May at Duluth by Jan Green.

Buff-breasted Sandpiper seen 5 May at Salt Lake by R. Grant. Two birds.

Hudsonian Godwit: Two were seen on 6 May at Salt Lake by members of the Avifaunal Club. Jan Green saw them at Duluth on 15 May.

Whimbrels were seen on 31 May at Duluth by Jan Green.

American Avocets were seen 23 April at Salt Lake by Avifaunal Club members. Seen there periodically through April and May. On 21 May a nest with four eggs was found. As many as 20 adult birds were seen in the area at one time. A lone individual was also seen near Big Lake, east of Herman, Grant County on the same day.

Gulls and Terns: Nine species were seen; the terns arrived normally. A few unusual dates are listed below for the gulls.

Glaucous Gull seen as late as 22 April at Duluth by Jan Green.

Bonaparte's Gull seen on 15 April, quite early, an adult and one in winter plumage near Flying Cloud Airport, west of Minneapolis by Avifaunal Club members. Of special interest are several California Gulls seen on 10 May in Steele County, North Dakota, barely 25 miles west of the Minnesota border, by William Pieper.

They were along the very edge of the Red River Valley.

Mourning Dove: Seen on 4 April at Duluth by John C. Green. A. C. Rosenwinkel saw them in the Twin City area on 1 March. Dr. Rysgaard saw them 5 days earlier near Northfield.

Cuckoos: Both species were reported, and apparently arrived on schedule. Although they are normally among the last of the migrants to arrive, a very late wave hit Houston County on 10 June when the Huber brothers saw and heard more than 30 cuckoos of both species. R. Grant contributed a similar report for the same area on the same day.

Owls: Six species were seen this season.

Screech Owl: R. Grant found one young just out of the nest about the second week of May in Hennepin County just north of Minneapolis.

Great Horned Owl: R. Grant reports a female incubating in Anoka County on 23 March. Heard 9 March by Gordon Gullion at the Cloquet Forest Research Station. William Pieper reports adult with two young at the Dorer Pools.

Snowy Owl: Joe Antonio saw one 21 March at Embarrass, St. Louis County. Sam Cox saw one the entire month of March on Minnesota Point, Duluth. Seen as late as 22 April at Duluth by Jan Green.

Barred Owl: Ole Finseth heard one calling at Chub Lake near Carlton, during two weekends in March. Jan Green saw one in Duluth on 4 May. Gordon Gullion saw one on 7 April at the Cloquet Forest Research Station. Dr. Rysgaard saw one at Vasa, Goodhue County on 10 May.

Long-eared Owl seen 17 April at Duluth by Jan and John Green. Two adults and four young found in nest in Hennepin County by R. Grant on 9 May.

Short-eared Owl seen 6 May at Salt Lake, and Beardsley, Big Stone County, by members of the Avifaunal Club. Seen 27 April at Duluth by P. B. Hofslund.

Goatsuckers: Both species were seen.

Whip-poor-wills were heard 23 May in Washington County by Dean Honetschlager and seen 26 May at Dunroven, Washington County by Brother Theodore.

Common Nighthawk seen very early by Brother Theodore at Dunroven, Washington County on 21 April, about 30 birds. Dr. Ward Tanner saw them 19 May at Kasota. Dean Honetschlager saw them on 13 May in Washington County.

Chimney Swifts first arrived in Duluth on 18 May when seen by Jan Green. Dean Honetschlager saw them in Washington County on 12 May. Dr. Rysgaard saw them on 15 May near Northfield and A. C. Roenwinkel saw them on 6 May near the Twin Cities.

Ruby-throated Hummingbirds were seen on 13 May at Vasa by R. Janssen and at Dorer Pools, Wabasha County by R. Huber. Dean Honetschlager saw one on 16 May in Washington County and Dr. Rysgaard saw them 10 May at Frontenac.

Woodpeckers: Five species of permanent resident woodpeckers were seen this season. The less common *Black-backed Three-toed Woodpecker* was seen by Nels Hervi and Virginia Barrows near Ely on 3 April.

Yellow-shafted Flicker: Earliest report was 1 April at Northfield by Dr. Rysgaard. Robert Ulvang saw one at Duluth on 5 April. Otherwise the peak of arrival for the state was 15 April.

Yellow-bellied Sapsucker was first seen by Dean Honetschlager in Washington County on 10 April. A. C. Roenwinkel saw them on 13 April in St. Paul and Dr. Rysgaard saw them on 15 April at Northfield. By 15 April they had reached Duluth, as seen by several observers.

Flycatchers: All Minnesota species were seen this season.

Western Kingbird was seen 27 May at Duluth (I doubt that there are many records for that area), by members of the Avifaunal Club. Brother Theodore saw one at Orrock, Sherburne County on 15 May. Seen 21 May at Salt Lake by Avifaunal Club.

Swallows: The five common species of swallows were seen.

Purple Martin was seen 19 April by Dr. Rysgaard at Northfield, 21 April in St. Paul by Mike Phillipe, and 24 April at Duluth by P. B. Hofslund.

Crows and Jays: Only the Gray Jay and Black-billed Magpie were not reported this season.

Common Ravens were seen as late as 16 May by P. B. Hofslund's class at Duluth.

Wrens: Five species were reported. *Winter Wren*: Seen 14 April at Duluth by Jan Green. Seen 15 April at Northfield by Dr. Rysgaard and 7 May by A. C. Roenwinkel in the Twin City area.

Bewick's Wren: Dr. Rysgaard saw one on 4 April at Northfield. Seen near Dorer Pools, Wabasha County on 13 May by Avifaunal Club members. Seen in same vicinity but in Winona County on 27 May by Brother Theodore.

Carolina Wren: Seen by members of Dr. Warner's ornithology class on 18 May at T. S. Roberts' Sanctuary in Minneapolis. Another was heard singing but not seen on 30 May just south of Reno, Houston County by Avifaunal Club members.

Long-billed Marsh Wren: Seen by Brother Theodore on 15 May at the Carlos Avery Game Refuge. Seen by Avifaunal Club members on 21 May near Odessa, but in Lac Qui Parle County.

Short-billed Marsh Wren: Seen 15 May by Brother Theodore at Carlos Avery Game Refuge. Seen 11 May at Duluth by Jan Green.

Thrushes and Mimic Thrushes: All common species were reported.

Mockingbird: Seen by R. Grant just north of Centerville, Anoka County on 27 April.

Wood Thrush: Seen 13 May at Whitewater Park by Avifaunal Club members.

Hermit Thrush: Seen 15 April by Dr. Rysgaard at Northfield.

Blue-gray Gnatcatcher: Seen 13 May by Avifaunal Club members near Whitewater Park. Observed

building nest near Vasa by Brother Theodore on 11 May. Seen 30 April at Red Wing by Dr. Rysgaard.

Water Pipit: Many seen on 23 April at Salt Lake by Avifaunal Club.

Vireos and Warblers: 34 species reported. Peak influx on second week of May. A. C. Rosenwinkel observed a heavy concentration of warblers in the Twin City area on 10 May. Southerly winds on that day probably accounted for the appearance of two rare warblers, one of which was a new state record.

Prairie Warbler: Previously unreported for the state, was seen by Mrs. Leach and other observers on 13 May at the Isaac Walton League Bass Ponds, in Bloomington, just south of Minneapolis. They had time to study the bird closely.

Kentucky Warbler: The first specimen taken for the state; a female found dead at the Northeast Athletic Field in Minneapolis on 22 May was brought to Harding Huber. The specimen was in fairly good shape and was turned over to the Museum of Natural History. It can now be officially listed as occurring in Minnesota, since for scientific purposes all previous sight records are hypothetical.

Bell's Vireo: Seen 30 May near Reno, Houston County by William Pieper and other Avifaunal Club members.

Myrtle Warbler: First warbler to arrive. Seen on 30 March by A. C. Rosenwinkel in the Twin City area. Dr. Rysgaard reports them on 15 April at Northfield.

Prothonotary Warbler: Seen 13 May in Twin City area by A. C. Rosenwinkel and same day at La Crescent by Avifaunal Club members.

Blue-winged and Golden-winged Warblers: Seen in same bush in White-water park area on 13 May.

Parula Warbler: Seen 19 May at Kasota by Dr. Ward Tanner. Seen 14 May in west Minneapolis by William Pieper.

Cape May Warbler: Abundant this spring; reported by almost all observers, the earliest being 13 May at Christmas Lake near Lake Minne-

tonka, Hennepin County seen by Brother Theodore.

Pine Warbler: A species that often eludes spring observers, was seen as early as 23 April by Nels Hervi near Virginia, St. Louis County. William Pieper saw one in Minneapolis on 13 May and A. C. Rosenwinkel saw one at Willow River, Pine County on 27 May.

Connecticut Warbler: Having never seen this warbler, I recently surveyed all issues of the *Flicker* since 1937. I found only three published Minnesota records for this species as compared with 17 for the rare Black-throated Blue!!! I would therefore like to invite all of you to send me your Connecticut Warbler records, past and present. On 27 May we heard two singing near Nickerson, Pine County, but were unable to see the birds. Brother Theodore saw one near Nerstrand, Rice County on 18 May. An early arrival was seen 10 May at Frontenac by Dr. Rysgaard. William Pieper and Harding Huber saw one at Duluth on 27 May. Robert Janssen saw one singing from the top of an Elm tree at Sand Dunes State Forest on 30 May, an unusual incident, since this bird is apparently rarely found any distance from the ground. Jane Olyphant banded a female on 25 May in St. Paul. She caught the bird in a figure-8 trap. *Yellow-breasted Chat* was seen by Brother Theodore at Reno, Houston County on 25 May.

Blackbirds, Tanagers and Orioles: Seen as regularly as usual.

Yellow-headed Blackbird: Seen 27 May at Duluth by R. Grant on Minnesota Point. Seen in the exact same spot two days later by Jan Green. Also, Mr. and Mrs. Jack Everett had one in their back yard at Duluth from 18 to 20 May.

Orchard Oriole: Seen 21 May at Rosen, Lac Qui Parle County by Avifaunal Club. Seen 27 May at Winona by Brother Theodore and 30 May at Reno, by William Pieper.

Scarlet Tanager: A female was seen by this writer at Duluth on 27 May. Seen by A. C. Rosenwinkel at Willow River on 27 May.

Fingillidae: Variable in their appearances, but for the most part were seen as usual. The Harris' and White-crowned Sparrows managed to elude most observers, while the Dickcissel is here in moderate numbers this year.

Pine Siskins were abundant in all areas reported from. A nest was reported on or about 13 April at the T. S. Roberts' Sanctuary in Minneapolis reported by E. D. Swedenborg. Another report of nest building came from Mrs. Andrews of the Lake Minnetonka area on 8 May. See Notes of Interest.

Red Crossbills were also reported everywhere; this is probably one of the largest invasions in years. They could breed in the state this year, since John T. Pratt reports that they seem to be paired off already in his area. There is thus far only one published record of their nesting in Minnesota that I know of. Dean Honet-schlager reports Red Crossbills common at Marine-on-the-St. Croix from 20 March until 12 May. A. C. Rosenwinkel reports them for 29 April and 13 May (20 birds in the Twin City area. Dr. Rysgaard reports that on 18 April several flocks took up temporary residence in evergreens at Northfield. Dr. Horace Scott saw a small flock at Frontenac as late as 10 May. R. Grant saw a small flock on Minnesota Point, Duluth on 27 May. Dr. Ward Tanner reports that two were first seen 17 April on Gustavus Adolphus Campus in St. Peter. They were seen daily until 22 May by which time 45 birds of both sexes had accumulated. Between 8 and 26 May John Pratt trapped and banded 9 at Wayzata, Hennepin County. R. Janssen reported 12 at Sand Dunes State Forest on 30 May.

Grasshopper Sparrow: Seen 13 May Cannon Falls by Brother Theodore.

Le Conte's Sparrow: Seen 6 May by Harding Huber at north end of Lake Traverse. Jan Green reports them for Duluth on 4 and 11 May.

Henslow's Sparrow: Seen 6 May on the Becker-Mahnomen County line by R. Grant, just south of Waubun.

Brother Theodore saw them 27 May at Winona.

Sharp-tailed Sparrow: Seen 15 May at Carlos Avery Refuge by Brother Theodore.

Lark Sparrow: Seen in Ramsey County 27 April by R. Grant. Seen 21 May in Big Stone County by Avifaunal Club members.

Snow Bunting: Seen as late as 17 April at Cloquet Forest Research Station by Gordon Gullion. A. C. Rosenwinkel reports that they were seen on 16 April, the day after the big storm, feeding in their yard with House Sparrows.

Summary: The season was fairly successful for Minnesota birdwatchers, because some 264 species were reported, the more interesting of which are listed above. In general the earlier spring migrants were slightly ahead of schedule, but other arrivals that could have been early were apparently slowed down by inclement weather. By May, migration was pretty much normal again. The warblers slipped though despite the rainy, windy weather, and many observers who were thus kept indoors probably missed some of the species they usually see.

Strong southerly winds on about 10 May apparently brought the first large waves of migrants, including some of the southern species such as Cattle Egret, Great White Heron, Swallow-tailed Kite, Prairie and Kentucky Warblers. A few western birds, notably the Western Kingbird and Willet strangely turned up in Duluth.

Compiling this data has been an arduous but pleasant task, and the information was interesting beyond measure. We should like to encourage you to send us your records for the nesting season. To facilitate compilation, they could best be listed in four columns: species, date, locality, with county, and observer, with remarks, such as number of eggs, young, etc. They should be listed in checklist order if possible. — 3121 Georgia Avenue S., Minneapolis 26, Minnesota.

SEASONAL REPORT

by
Mary Lupient

Minnesota experienced a mild winter. In southern sections a nearly normal amount of snow fell but in some parts of the state there was little precipitation. In early March it snowed heavily in spots and on April 16 a severe snow storm accompanied by strong winds blocked roads and tied up traffic. It must have caused loss among early migrants especially small birds. Wherever they found feeders they arrived in large numbers. There were many reports of large flocks of Robins and Cedar Waxwings at feeders. They had migrated much earlier. From Virginia, Minnesota Mrs. Gladys Pottsmuth sent a similar report which included Song Sparrows and Harris' Sparrows. She said gulls appeared in Virginia during the storm.

A Red-necked Grebe was seen on Lake Nokomis, Minneapolis, April 8 by Mrs. E. W. Joul. Horned Grebes were present on Minneapolis lakes during late April and early May. In Chicago Bay, Lake Superior a large number of Horned Grebes were observed by Dr. A. E. Allin on April 24 who also reported a good-sized movement of several species of ducks in the area.

White Pelicans were found at Salt Lake, Lac Qui Parle County around the middle of April by Richard Olson. On April 29 he saw many sandpipers and three American Avocets in the same area. A few Lesser Yellowlegs in Hennepin County were the only other records of shore birds that were received.

About 300 Whistling Swans were resting in very small spots of shallow water in the Minnesota River lowlands April 2. About 150 flew over Marine-on-St. Croix, Washington County, April 8, seen by Dean Honetschlager.

A few Red-tailed, Sharp-shinned and Sparrow Hawks hunted along the

Minnesota River in Hennepin County during the winter. A White Gyrfalcon was seen by this writer Feb. 10 in Carlos Avery Game Refuge, Anoka County.

This writer thanks all those who sent in reports of wintering Bald Eagles. The following records will be sent to National Audubon Society by request of Mr. Alexander Sprunt, Jr. 3, Washington County Nov. 20, Dean Honetschlager; 3 were observed every day during the season along the St. Croix River, Washington County, Paul Lengafeld; 25 adult Bald Eagles soared along the Mississippi River, Wabasha County, seen from a helicopter Dec. 20, Capt. James R. Miller; five adults and two immatures Dec. 26, Dakota County, Dean Janzer; one, Dec. 14, Washington County, Sarah Wangenstein; eight along the Mississippi River, Goodhue County, Dec. 12, Walter Jiracek; two, Carlos Avery Game Farm, Anoka County, Feb. 2, Lucia Johnson; Two in Beltrami County, Nov. 25, 1960, Ellen Jonas; one, Winona County, March 12, Margaret Lachore; one in south Minneapolis, March 25, and one in Scott County, March 26, Robert Janssen; one in Mud Lake National Refuge, Marshall County, to the end of February, Don Perkuchin; one, Lake County, April 2, A. E. Allin; one, Ramsey County, March 8, Ed Sorgats; one, Cook County, Feb. 11, Mr. and Mrs. Harvey Putnam; one, Lake County, Feb. 11, P. B. Hofslund; one, Mountain Iron, March 6, Nels Hervi; two during most of April in Minnesota River Valley, Hennepin County, James Wilkie; one, Hunter's Lake north of Duluth, St. Louis County, Feb. 19, Evelyn Palmer.

Golden Eagles wintered in Mud Lake National Refuge reported by Don Perkuchin.

There was a larger than usual wintering population of Mourning Doves

in the south half of Minnesota. Flocks numbering from three to 35 were reported from several areas.

The vanguard of Horned Larks arrived in Hennepin and Scott Counties during the first week in February and the migration peak occurred during the third week of the month.

A Snowy Owl spent much of the winter on buildings on the University of Minnesota Campus. It spent one whole day perched on a flagpole that had been erected on Northrup Auditorium. Brother Theodore and others saw three Snowy Owls at Rice Lake Refuge, Aitkin County, Feb. 11-12. Don Perkuchin reported that Snowy Owls wintered in Mud Lake National Refuge. Two Short-eared Owls were seen in Goodhue Co. Feb. 21, by Rev. Forest Strnad.

The population of Tufted Titmice is apparently still increasing. Many wintered near feeders in the Twin Cities and suburbs. Dean Honet-schlager reported seven in the Marine-on-St. Croix area.

Red-breasted Nuthatches were almost entirely absent in Minnesota this winter. Only a few scattered reports of single individuals were received.

In the Twin City area Robins arrived somewhat earlier and in good-sized flocks. Janet C. Green, Editor of Field Observations for the Duluth Bird Club sent many records of wintering Robins from Duluth. The records were from several areas and the number of birds varied from one to 300.

Early warblers in small numbers began appearing the last week in April in southern Minnesota. Ruby-crowned Kinglets migrated in goodly numbers the last of April and the first week in May.

A Brewer's Blackbird was seen by Dr. Allin about 20 miles north of Grand Marais, Cook County, April 2. Yellow-headed Blackbirds were present in Hennepin County April 25 reported by Mrs. E. W. Joul.

Purple Finches were abundant in northern sections but the numbers were much less than normal in the south. There was an unprecedented influx of Red Crossbills everywhere. Pine and Evening Grosbeaks were present in small numbers. The population of Pine Siskins was about normal though they were present in larger numbers in the north than in the south. Common Redpolls were scarce, only a few small flocks were reported.

Janet C. Green reported an influx of Bohemian Waxwings in Duluth, Lutsen and Tofte during February. There were 24 records of these birds numbering from 10 to 1500. In southern sections they were almost absent. Small flocks of Cedar Waxwings roamed about the state.

Sparrows migrated as usual in southern counties. Flocks of Snow Buntings were reported from some localities. Mrs. Harriet Micensky reported approximately 500 near Hibbing, St. Louis County, Feb. 23 and a flock of 200 was seen Jan. 28 near Marine-on-St. Croix by Dean Honet-schlager.

There were a few unusual records. A Mockingbird arrived early in November at the home of Dr. W. J. Jeffries in Hopkins, Hennepin County, and was still there at last report, March 1. It fed on crabapples and fruit of other ornamentals in the vicinity.

A Black-billed Magpie was seen by James Wilkie near his home in Hennepin Co. May 2. — *212 Bedford Street, Minneapolis, Minnesota.*

BIRDERS, CALL TO ARMS

by

Elizabeth D. Velie

When it was first suggested that a report be given about the plans of our small group, our first reaction was that we haven't *done anything* . . . all we've done is talk and plan about what we hope to do. But then it becomes suddenly apparent that we have talked so much and thought so big that we are going to need help if we are to accomplish our objective.

One night this fall, my husband put a section of the newspaper in my lap and said, "You are so crazy about birds, why don't you do something about this?" The article, entitled "10,000 Birds Hit Television Tower, Die." referred to a tower in Eau Claire, Wisconsin, where an estimated 10 to 15 thousand birds, mostly thrushes and warblers, were killed during the night of September 22-23, 1960. This same tower in 1957 had killed an estimated 20,000 in one night. But thrushes and warblers! Ten thousand of them! Of course, it was heartbreaking . . . and there was no doubt that the gauntlet had been cast right at my feet. Fortunately for the birds, it was a happy impulse to call Dr. Walter J. Breckenridge—for not only did he express some hope that maybe something could be done but, in spite of many reports having been written about such tragedies, he also had some doubts that anything much had been done to prevent them. However, before undertaking any experiments, he would like a card index record of articles in the various publications at the Museum dealing with all revelant occurrences on the subject for an evaluation of the causes as a basis for experiment in prevention. Dr. Dwain W. Warner's interst and enthusiasm were next aroused. Then twelve more amateur birders offered to help.

Well, there were endless articles and reports under diverse headings and cross references involving, not only accidents with television and radio towers, but also tall buildings,

high power lines, and airport ceilometers (The latter being a powerful shaft of light shining straight up into the sky to determine the height of the cloud ceiling).

We are only just starting to make a card index file on such catastrophes that have occurred during the past ten years, making brief notes of place, date, source, type of structure, numbers, and kind of birds killed, and then adding a more detailed summary of weather conditions, type of lighting as well as any other data bearing on the possible cause or prevention.

The diminishing numbers of birds have alarmed conservationists for some time. Many causes, including natural hazards (such as sudden and severe cold spells at their wintering grounds, storms as they are coming north and storms as they are going south, late spring freezes that chill them and kill off their food, losses by predators, etc.) . . . these all seemed beyond our help. The pesticide program to control fire ants, Dutch elm disease, mosquitoes, etc.—an excellent example of man's short sightedness—already had so many groups in such a battle royal that we dared not enter. But these towering obstructions and baffling beams of light were killing such vast numbers of birds that it was doubtful how long the bird population could withstand such a murderous combination and still survive.

In October of 1954, one airport ceilometer in Georgia had the unfortunate distinction of establishing an apparent record in mortality: an estimated 50,000 birds killed in one night. The birds had become so temporarily blinded, confused, and disoriented that they not only collided with each other but many flew into the ground. One observer at their ceilometer noted 'birds' flying straight downward in the beam and bouncing off a concrete runway." From the above-mentioned sky

traps of either towering obstructions or baffling lights, during a three-day period in the fall of 1954, an estimated 106,800 birds were killed in the east and southeast alone. From the small percentage of birds actually counted and examined in this three-day nightmare, the list included:

Wood Thrush — 190; Swainson's Thrush — 530; Gray-checked Thrush — 155; Veery—91; Red-eyed Vireo—821; Black and White Warbler—261; Tennessee Warbler—576; Parula Warbler — 113; Magnolia Warbler — 995; Black-throated Blue Warbler — 92; Black-throated Green Warbler — 83; Blackburnian Warbler — 177; Chestnut-sided Warbler—703; Bay-breasted Warbler — 161; Blackpoll Warbler — 203; Pine Warbler—106; Palm Warbler—149; Yellowthroat—505; Hooded Warbler—125; American Redstart —273; Scarlet Tanager—330 Indigo Bunting—450; and Ovenbird—1,172—to mention only a few.

One dedicated ornithologist spoke of standing under a television tower during the night of an unusually "large kill" and being touched with an acute feeling of sorrow and pity as he heard the cries of the birds hitting the obstructions and fluttering helplessly to their deaths.

Many observers consider the ceilometer by far the more lethal of these various hazards, since the brilliance of its lights attracts the birds in larger numbers and from greater distances. Although some tall structures may cause mortalities solely by accidental collision, most writers, it seems, feel that the birds are definitely attracted by the lights even though to a lesser degree than they are to the ceilometers. Deadly combinations are often a large number of migrating birds, plus favorable winds, and a cold front in the fall or a warm front in the spring accompanied by low ceilings from clouds, fog, or drizzle. However, there are so many "ands, ifs, and buts" that the solution remains far more complex than it appears. Our objective is to find out how we can keep the birds away, or frighten them away, from these so-called "sky-traps."

No sooner was our interest aroused for the welfare of the birds, then two things happened that immediately put the birds on the defensive. On October 4, 1960, there was an airplane crash in Boston Harbor killing 62 persons, caused, it was believed, by a flock of Starlings being ingested by the engines. Another similar accident was barely averted in November by another plane plowing into a flock of sandpipers on the runway. New headlines began to appear: "U.S. Joins Battle of the Birds," "Armed Guard Patrols Airport on Look-out for Birds," "Federal Aviation Agency Transfers \$100,000 to U.S. Fish and Wildlife Service to Combat Bird Problem at Airports," etc. Now we are not any more anxious to be killed in an airplane accident than the next man, and we surely highly endorse all and any safety measures necessary.

But now from the west comes another cry to "get the birds" "with blinking lights, high pitched sounds, sticky varnish, tiny howitzers, rubber rodents, gin-soaked bread, tranquilizers," and even monkeys, because different cities are plagued with problems where Rock Doves, Starlings, or House Sparrows are "defacing buildings and monuments, corroding metals, contaminating grain, spreading communicable diseases and parasites, being sucked into air-conditioning intakes atop buildings and causing expensive removal and repairs." It is believed that there are now over forty companies making products for bird removal and that one company alone will net \$200,000 this year on its product. Now, even though our purposes may be dissimilar, we are both trying to keep birds away from specific places, so perhaps these two projects can help each other. But let's not kill off all of what's left of the bird population just because of a few bad actors.

Now it is impossible for this particular group of birders to think of birds solely from a standpoint of conservation or scientific research. We remind ourselves that we must not get too emotionally aroused lest we become stupid and maudlin and accomplish nothing. But what would the world be

like if no one ever read Beatrix Potter or Thornton W. Burgess or "Wings at My Window" or "The Last of the Curlews." All of our lives, we have loved the birds, admired their beauty, enjoyed their antics, thrilled to their songs. Some of us have gone on birding trips . . . some have let the birds come to us . . . all have watched at our feeders and bird baths with enjoyment and interest. Except for the small effort involved in filling our bird baths and feeders, on our part this has all been an absorption process. The birds have inspired and entertained us . . . they have been our "delight makers" . . . they have enriched our lives with their courage, their beauty, their music.

Has the time come when we can repay a debt? Attempt to balance the

scale even a little bit? We think it has. We plan to do reference work in the Museum library this winter (1960-61) and we want to organize ourselves to report on any mortalities at television towers and ceilometers in our area next spring during migration. We need all the help that we can find. We hope some of you will send your names to the Museum. The only qualifications needed are a love of birds and much or little time—if when and where you can give it.

There are many things we cannot do for the birds. There are some things we can. Lets do those soon . . . and well . . . and while there is still time. — *Museum of Natural History, University of Minnesota, Minneapolis 14, Minnesota.*

CORRECTION

A correction should be made on page 12, Volume 33, Number 1, March 1961, The Flicker. Table III should read as follows:

TABLE III

Mallard	12	9-1-51	Horicon, Wis.	9-15-60	Holt	Trap
	12	7-12-58	Gull Lake	1-10-60	Holt	Trap
	12	12-15-55	Ware, Illinois	9-23-60	Holt	Trap
	12	2-24-59	Smyrna, Del.	9-30-60	Holt	Trap
	12	12-13-58	Lebanon, Tenn.	9-30-60	Holt	Trap
Blue-winged Teal	12	8-26-60	Manitoba, Canada	9-26-60	Holt	Trap
Evening Grosbeak	4	1-28-58	Midland, Mich.	4-3-60	Walker	Trap
	4	2-11-58	Hartford, Conn.	4-28-60	Walker	Trap
	4	1-12-59	Bethel, Vt.	4-21-60	Walker	Trap
	4	1-8-59	So. Londonderry, Vt.	2-14-60	Walker	Trap
	4	2-14-59	Marquette, Mich.	4-28-60	Walker	Trap
	4	3-17-59	Midland, Mich.	2-28-60	Walker	Trap
	7	3-8-59	Lansing, Ont.	5-13-60	Duluth	Trap

THE CANADIAN LAKEHEAD

by

A. E. Allin

The weather for the first three months of 1961 was relatively moderate. January was a bright but cold month, the mean temperature of 13.9° being 3.3° below the long term average. February was rather dull but the mean temperature of 15.8° compared favorably with an average of 9.9°. March was dull but warm; the mean temperature of 26.1° was 5.6° above normal. The precipitation for each of the three months was below normal. The snowfall by March 31 was only 42 inches, approximately half the average. Perhaps as a result of the cold December and limited protecting snow, the ice on the Bay was very thick and by mid-April was still solid except for channels cut by ice-breakers. Creeks and rivers opened in early April. On April 15 the only snow was that present in the dense bush and on the shaded sides of the mountains. A few buds of the Silver Maple were beginning to open and many Compton Tortoise Shell Butterflies were attracted to its sap.

With a large wintering population of fruit and seed-eating birds it was interesting to note their preferences. Certainly the fruit of the Mountain Ash was the favorite of the fruit eaters. Despite a very heavy crop it had all been eaten by Pine Grosbeaks, Purple Finches, Cedar Waxwings and Starlings by midwinter. The same birds consumed all the fruit on the Hawthorns as well as the very small fruit borne by one of the flowering Crabapples. On the other hand, a heavily laden Barberry was ignored, as was a larger variety of Crabapple. Little attention was paid to my blue-fruited Cotoneasters. Common Redpolls and Pine Siskins had little difficulty in finding exposed weed seeds. They also are fond of the seeds of the White Birch. Evening Grosbeaks appeared to be dependent on the food provided at numerous feeding stations.

The winter of 1960-61 was an exciting one for bird watchers and many unusual observations were made. Resident species provided the least interesting records as all appeared present in their usual numbers with the exception of the Boreal Chickadee which seemed unusually scarce. T. Tuominen, an outdoorsman with wide experience, reported Spruce Grouse abundant in Marks Township during March. Since they had not been common there last fall this many have been a winter "pack".

Many summer residents remained in greater numbers than usual. The outstanding example was the Purple Finch. A few appeared in mid-December after an absence of several weeks. Subsequently they were reported from many areas. Flocks contained up to 100 individuals. Three Song Sparrows at Fort William and one at Geraldton, a Tree Sparrow, and numbers of Slate-colored Juncos were also seen. Several flocks of Robins as well as individual birds were reported. Flocks of Cedar Waxwings were present throughout the winter. Red-breasted Nuthatches were fairly common after a five-year absence as winter residents. The Brown Creeper seen by K. Denis was our second winter record. At least two Mourning Doves wintered near Rosslyn and 8 Common Crows survived the winter near the Indian Mission. A flock of Red-winged Blackbirds was seen on December 26. A Pigeon Hawk was seen on several occasions about the two cities.

Probably more ducks wintered at the Canadian Lakehead than usual. Common Goldeneyes were frequently reported from widely scattered open stretches of the rivers. On February 18, K. Denis and the Robbs observed 2 Black Ducks, 4 Mallards, 8 Common Mergansers and 6 Common Goldeneyes at Dorion Fish Hatchery. Mrs. Peruniak reported a female Mal-

lard and a Common Snipe wintering at Atikokan.

Many species of winter visitors were reported. Common Redpolls and Snow Buntings were uncommon and only one Hoary Redpoll was recorded. White-winged Crossbills had been very common northeast of the Lakehead in late summer and early fall. Throughout the winter they were regularly reported from the Lakehead as well as from Dryden and Geraldton. Twenty Red Crossbills were seen on October 20, and one on March 31. Two flocks were reported in mid-April. On March 19, we saw and heard 2 males and a female tearing apart the tough cones of the Jack Pine. As we watched the occasional seed flutter to the ground we wondered what part crossbills play in the propagation of this conifer. Evening Grosbeaks were present throughout the winter. One flock of 75 apparently made the rounds of the feeding stations but their visits became irregular in early April. Pine Grosbeaks were first seen on November 27. They were abundant in December and January but their numbers declined in February. A single bird was seen on March 13. Although we saw flocks of 50 and 200 Bohemian Waxwings north of Pigeon River on January 15, only 2 individuals were reported subsequently.

There were small flights of Hawk Owls, Snowy Owls, and Northern Shrikes. The first Hawk-Owl was seen by Dorothy Allin near Pigeon River on November 3. Two were seen later in the fall and two in midwinter. Another was seen on March 11; the Robbs saw one on March 18, and we found one in Vickers Park, Fort William on March 19. We saw our first Snowy Owl on November 2. At least 12 were reported at the Lakehead during November and December. K. Zrobak saw 7 at Geraldton on December 27. Six were reported locally in January and February. In mid-March there were many reports of Snowy Owls in Fort William and Port Arthur but these may have referred to only a few individuals. Several were seen in late winter near Shebandowan. Our last report was one seen on April 4. Eight Northern Shrikes were reported

to us; the first was seen on October 10. Individuals were seen on December 9, 26, March 5, 12 and 31, and two on April 15.

It is always difficult to recognize the first migrants and this year is no exception. Did the numerous Purple Finches move back to the area after migrating further south in the fall, or had they been present deep in the woods? Pine Siskins, Common Redpolls and Snow Buntings were present in small flocks all winter. On March 5 we saw 5 small flocks of Pine Siskins and on March 20 they were common along the Kenora-Fort Frances Highway. We saw at least 1000 in Sibley Park on March 31. T. Perrons reported the first flocks of Snow Buntings along the Canadian Pacific Railway west of Fort William on March 10. More flocks were reported in the next fortnight including one on March 20 north of Fort Frances. Common Redpolls became fairly common during the week of March 18. Subsequently they have been scarce. Herring Gulls returned on March 18 after an absence of almost 3 months. Had they wintered along the North Shore between Chicago Bay and Duluth? Whence came the Common Crows which appeared on March 19, cawing across the countryside? Was the Redwinged Blackbird we saw on March 26 a migrant or one of the flock we had seen on December 26? What of the Brewer's Blackbird we saw in Northern Cook County on April 2 or the Bald Eagle seen at Grand Marais on the same date? Two Bald Eagles were seen west of the Lakehead on April 3 and one at Rossport on April 7.

Robins remained in numbers last winter along the North Shore. Were the ones seen on March 25 some of these wintering birds? From that date on, Robins became increasingly abundant at the Lakehead. Killdeers appeared on April 5 and Common Grackles on April 10. There was a small movement of hawks on April 8 and 12. We identified Red-tailed, Sparrow, Marsh, and Rough-legged Hawks. A few Marsh Hawks had been seen on April 3. The first water bird to be reported was a Common Loon seen by Mrs. Beckett on April 10. Black

Ducks, Mallards, Pintails, Common Goldeneyes and Common Mergansers were seen on Thunder Bay on April 13 and 14. A flock of Ring-billed Gulls appeared on April 13. Once a scarce migrant, these gulls are now fairly common spring migrants and possibly summer residents.

Black-billed Magpies are appearing in increasing numbers in Northwestern Ontario. One was seen at Shebandowan in March, 1945. On January 14, 1958, Mr. Broome caught one in a trap in Conmee Township. Norman Denis saw one in 1959 near Port Arthur and in mid-December, 1960, J. Webb trapped one in Hardwick Township, west of Whitefish Lake. During the same period, according to G. E. McKinnon, District Forester, Geraldton, one was trapped near Longlac on November 13, 1956. A Black-billed Magpie was trapped near Terrace Bay on January 15, 1958, and another at Whitesand Lake on October 20, 1960. Another was seen by H. Middleton in late November, 1960 at Gravel River Flats. Meanwhile Mrs. Peruniak has seen Black-billed Magpies on several occasions in the past few years near Atikokan, Rainy River District. Miss D. Adams saw a Black-billed Magpie on October 25 and 26 near Dinorwic, Kenora District. Mrs. L. Howe has seen several near Dryden, including two observed during the last week of February, 1961.

Bird-banders will be interested in an excerpt from a Christmas letter I received from Stuart Houston, Yorkton, Saskatchewan, an ardent bander and co-author with Maurice Street of *The Birds of the Saskatchewan River, Carlton to Cumberland*. In June, 1960, the Houstons banded various species of gulls, cormorants, and pelicans, as well as Ferruginous Hawks, and 2 Golden Eaglets. The highlight of the banding year however was the all time high record of owls. From January to June, they banded 25 rare Boreal Owls, 2 Saw-whet Owls, 150 Great Horned Owls, 68 Short-eared Owls, 73 Long-eared Owls and 1 Barred Owl (first banding record for Saskatchewan). They credit the remarkable results to "the tremendous response to Stuart's weekly T.V. show

'Watching Parkland Birds with Stu' " during migration and nesting season. Houston, elected a member of the A.O.U. at the Regina meeting in 1958, was a general practitioner in Yorkton, Sask., until a year ago when he commenced a post-graduate course in radiology.

Not all the members of the Thunder Bay Field Naturalists' Club confine their interests to birds. The Hartlys, who live on the slopes of Mt. McKay, keep a dozen cats. In January Mr. Hartly brought me the following specimens which the cats had caught during the early winter: 1 Cinereus Shrew, 2 Saddle-backed Shrews, 3 Mole Shrews, 1 Star-nosed Mole, 2 Meadow Mice, 1 Deer Mouse and 1 Meadow Jumping Mouse. Unfortunately an additional specimen was so badly macerated, Mr. Hartly did not save what was probably a rare Rock (Yellownose) Vole.

Red foxes have been very abundant during recent years. Probably erroneously they have been blamed for the scarcity of grouse. During the autumn of 1960 we saw as many foxes as we had seen in the previous two decades. The Allins were fortunate in seeing a black-phased fox on October 9, and a cross-phase on April 9. On October 29, in a dense fog, we ran our motor-boat so close to four muskrats, on one of their feeding platforms, that the prow of the boat almost touched one of the fur-bearers.

Moose continue to increase to such an extent that there is definite danger that their range is becoming overpopulated despite the heavy kill of recent years. We believe there is a decline in the incidence of their parasites, especially *Echinococcus granulosus* and *Taenia krabbei*. We can detect *Sarcocystis* in most specimens we examine. Woodland Caribou are definitely increasing. On November 14, a herd of about 30 animals stopped a school bus west of White River. In December three were seen near Marathon. T. Perrons reported a herd of 30 to 40 north of Ignace and herds of similar size are reported north of Kenora and near Onaman Lake.

Although many of us belong to the M.O.U. and our field associations are

frequently with ornithologists from Minnesota, the Thunder Bay Field Naturalists' Club is affiliated along with 45 other Clubs with the Federation of Ontario Naturalists. I was able to attend the Annual meeting in Port Hope on February 25 when Richard Pough, President of the Natural Area Council Inc. was guest speaker. The preservation of Ontario's Wetlands received the main attention of the meet-

ing. During 1961, the Federation will concentrate its activities on Nature Reserves and the conservation of our Wildflowers. This scribe was re-elected a vice-president and K. Denis a director of the F.O.N. for 1961. We were also made a Trustee of the newly organized Ontario Waterfowl Research Foundation. — *Regional Laboratory, Ontario Department of Health, Fort William, Ontario.*

NOTES OF INTEREST

OBSERVATIONS ON BLACK-BILLED MAGPIES AND AMERICAN WOODCOCK — The Black-billed Magpie is now a common wintertime visitor in the Red River Valley. These black and white phantoms are most often observed dipping in and out of the aspen groves which break the prairie along the eastern margin of the Valley. They must be solitary critters, since single birds are often seen, and two or three in a group is ordinarily the most I have observed.

In October, 1958, I saw two large flocks of Black-billed Magpies, an experience I'd never had before, and haven't had since. Lloyd Radi, of Crookston, and I were hunting Sharp-tailed Grouse a few miles south of the south boundary of the Mud Lake National Wildlife Refuge, driving the bank of Ditch 20, when a few Black-billed Magpies flew across the road in front of the car. We saw more birds coming so we stopped and counted them. When the last long tail had crossed the ditchbank trail, we had counted a total of 51 Black-billed Magpies.

About a week later I roused a flock of 35 Black-billed Magpies from an aspen grove just north of Melvin Slough, 15 miles southeast of Crookston.

As unusual bird observations, I must rank these two observations of Black-billed Magpies with the time Lloyd Lindvall and I sighted an American Woodcock at Marcoux Corner, 16 miles East of Crookston, far from woodland habitat. — *Edward A. Weiland, Minnesota Division of Game & Fish, Crookston, Minnesota.*

* * *

A COMMON EGRET IN THE MINNESOTA LAKEHEAD REGION

—Since Roberts (*Birds of Minnesota*, 1:179-10, 1936) indicates a scarcity of records for the Common Egret (*Casmerodius albus*) in Minnesota, it seems worthwhile to publish a recent record. On April 22, 1960, I saw a single Common Egret flying in a southwesterly direction, just above the forest canopy, at the Forest Research Center, 4 miles southwest of Cloquet, Carlton County, Minnesota. Since Common Egrets are common along the rivers and lakes in the southwestern United States, where I have done a considerable amount of field work, I am quite familiar with this species and there was no question as to this bird's identity. — *Gordon W. Gulion, Forest Research Center, Cloquet, Minnesota.*

* * *

BOHEMIAN WAXWING INVASION IN DULUTH, WINTER, 1961

—On the M.O.U. North Shore field trip of February 11-12, 1961, four large flocks of 100 to 200 Bohemian Waxwings (*Bombycilla garrula*) were noted between Duluth and Grand Marais. These were the forerunners of the invasion that reached Duluth the third week of February. Although small numbers (10-30) of Bohemian Waxwings had been reported in Duluth the last few days in January and two large flocks (100-200) were seen on the 5th and 10th of February, the big influx of birds seemed to arrive on the 16th when a total of about 4,000 waxwings were seen by Robert Cohen in less than an hour. Another large flock of 500 birds was seen by P. B. Hofslund on the same day in another part of the city. From the 16th until the 24th flocks of 100 to 500 birds were reported commonly throughout the city. The mountain ash berries, which had been abundant all winter due to a heavy crop and the absence of large numbers of migrating Robins during the fall, were almost completely stripped from the trees by the 21st and waxwings seen after that were usually feeding on the berries that had been knocked to the ground. Flocks of 100 to 200 Bohemian Waxwings were reported almost daily through the first week of March, but after that only occasional flocks of 100 have been reported to date (March 24).

A few Cedar Waxwings were counted in most waxwing flocks, and the main influx of Bohemian Waxwings on the 16th was also accompanied by large numbers of Robins and Pine Grosbeaks. Robins have remained in Duluth all winter, flocks of 20-30 being occasionally seen, but the largest flock reported was one of about 300 birds on the 16th. The first Pine Grosbeaks were observed in Duluth on the 3rd of February and after that were seen commonly in groups of 5 to 15 feeding with the waxwings in the mountain ash trees. However, after the 20th of February, when the berries were almost all gone from the mountain ash trees, no Pine Grosbeaks have been reported in Duluth.

This summary was made possible by the observations of the members of the Duluth Bird Club and their cooperation is gratefully acknowledged. It is hoped that this report can be correlated with other movements of Bohemian Waxwings and Pine Grosbeaks throughout the state, and will stimulate recorded observations to document invasions of this sort in future years.—*Janet C. Green (Mrs. John C.), Science Division, University of Minnesota, Duluth 12, Minnesota.*

* * *

SAW-WHET OWL OBSERVATION—On Sunday, March 12, a bright spring-like day in central Minnesota, my wife and I while checking a patch of white pine to decide whether it needed thinning or not, came upon a Saw-whet Owl sitting on a low branch about four feet from the ground in a dense part of the thicket.

Remembering the story we read of the unsuspecting Saw-whet Owl in the November-December, 1958 issue of *Audubon Magazine* we decided to see if we could catch it. While my wife beat around in the brush directly in front of it to attract its attention, I walked up behind, but it was interested more in what I was going to do. He watched me until I had my hand directly above him before he looked the other way and let me pick him up. We took it back to the house for the smaller ornithologists to see before turning it loose again in the white pine thicket where it flew only to the next row of trees.—*Bennie Myers, Pequot Lakes, Minnesota.*

* * *

A MINNESOTA PINE SISKIN'S NEST—The Pine Siskin is a bird of very irregular habits. Though it has been seen feeding young by several observers in the northern part of Minnesota its nest has never been found in the state.

On April 9th of this year we had a very pleasant experience near the entrance to the Dr. Roberts Sanctuary at Lake Harriet. We had been watching a Pine Siskin feeding on the ground and among the branches of a nearby tree. Suddenly it dropped from the tree and disappeared among the branches of a small Mugho Pine. Looking closely for it we were surprised to see it on a nest near the top of the little pine. Not wishing to disturb the bird we made no effort to ascertain its contents, but called Dr. Breckenridge instead.

The following day we met Dr. Breckenridge at the nest and with the use of a ladder found that the nest held three eggs, one of which was taken for the museum collection. This egg was blown and found to be in an advanced state of incubation. Dr. Breckenridge took several stills and two movie shorts of the bird in the vicinity of the nest.

April 11th and 12th. One bird stayed continuously on the nest. The other adult bird came to the nest several times while we watched.

April 13th. The temperature was 23° this morning and rather cold all day. In the afternoon one of the eggs had hatched, apparently that day. Not wishing to disturb the nest we left immediately and I am not positive that the other egg was still in the nest.

On April 14th it rained all day. One bird still stayed on the nest and we had an unusual opportunity to watch the other bird before it came to the nest. First it perched in full view in a nearby shrub. Its bill was closed and there was no signs of any food in it. Then it flew to the nest, perched on the rim, and fed the brooding bird. This was done with six or eight quick contacts with the other bird's open bill. We watched for some time to see if any food was passed on to the young bird, but this was not done.



Pine Siskin Nest, Minneapolis, April 1961

On April 15th it snowed most of the day and night, the temperature was in the twenties and low thirties and a strong wind blew. In the afternoon the side of the nest was covered with snow but the siskin was still on it, apparently brooding.

The following two days seven inches of snow fell and the nest was covered. There was no signs of life at the nest.

Being sure that the siskins had left we collected the nest for the museum on the 19th. It was empty and perfectly clean, nothing to indicate what became of the young bird or birds. However, there are many Common Grackles and squirrels in this section.

The nest was almost round, made of grasses and small twigs and lined with gray squirrel fur. Its inside dimensions were two inches by two inches, its outside three inches by three inches. It was situated about eight feet up, near the top of the small pine. This was a very disappointing finish to a most interesting nest. — *E. D. Swedenborg, Mrs. E. D. Swedenborg, 4905 Vincent Avenue, South, Minneapolis, Minnesota.*

* * *

POSSIBLE SIGHT RECORD OF THE GREAT WHITE HERON — On Saturday, May 13, 1961, I had just gone into the field to plant corn. In a small pond in the bottom lands there was a large white bird that I thought to be an egret. On my approach the bird flew about a hundred feet and sat on a broken end of a large limb of an ash tree. At that distance I noticed the yellow legs and beak which I hadn't seen when it flew. It stayed in the tree for about fifteen minutes then flew to the ground near the pond and walked into the water where it stood for about a minute and then flew away.

It was a nice clear day and I was within a hundred feet of the bird. It was about the size of a Great Blue Heron, it appeared pure white in color and definitely had yellow legs and bill. The pond is located about two and a half miles

north and one mile west of Elmore, Minnesota, on a farm belonging to L. Merwin Krosch. The pond lies between the edge of the woods and open farm land.

Upon looking in "Peterson's Field Guide to the Birds, I discovered that it was not an egret, but a Great White Heron. — *Sherwood L. Krosch, Elmore, Minnesota.*

REPORT OF SWALLOW-TAILED KITE SIGHTING — Following an ornithology field trip on the morning of April 25, 1961, I drove down to Gun Club Lake (also called Marsh Lake) which lies directly below Fort Snelling in the Minnesota River bottoms. For about ten minutes I watched a raft of ducks on the water.

At 11:15 a.m. I observed a bird the size of a medium to large-sized hawk flying above the tree tops. It flew slowly in a southwest direction out over the lake. When I first saw the white underside, I thought it was an Osprey. However, it was too small and did not have the markings of an Osprey. Through the binoculars I watched the bird land on a limb of a dead tree close to the lake. It was about thirty feet above the ground, and appeared to be watching the ground.

Although the bird landed across the lake, on the Fort Snelling side, I was able to see its odd markings. Its folded wings and long, forked tail were black, with a white head and breast, the characteristics of a Swallow-tailed Kite.

I observed the bird for 45 minutes. During this time it never moved from the limb. For one instant a Common Crow landed in the same tree, directly above the kite. It remained for a moment and then flew away. At 12:00 noon I left to report my discovery to the Museum of Natural History. Returning at 12:20, I parked on the freeway, where I could get a closer look at the bird. Deciding I was close enough to get pictures, I went home to get my camera and returned to the lake at 12:45. The bird was still sitting on the same limb. I took pictures of the bird from the freeway, a distance of at least one-half of a city block. When I tried to get closer to the bird, it became startled and flew away. Altogether, the bird sat on the same limb for nearly one hour and forty-five minutes. During this time, as far as I know, it never left the branch.

Since the sighting, I have returned many times, but I have never seen the bird again. I have read that the bird eats small snakes, which could explain why at times he appeared to be watching the ground. — *William E. Berg, 4338 45th Avenue So., Minneapolis, Minnesota.*

* * *

RING-BILLED GULLS FEEDING ON BLUEBERRIES — While returning by auto from the East across Ontario via Route No. 17, on June 14, 1960, we observed several hundred Ring-billed Gulls foraging in a hillside field near Webbwood, just north of North Channel of Lake Huron. We found on close observation that the gulls were feeding on blueberries. We examined the berry bushes and found that very few of the berries had ripened. Still closer study disclosed that the gulls were eating the green berries.

We have observed this species following the farmer's plow or harrow, feeding on worms and other insects. We have also observed them foraging for food around garbage dumps, but we have never observed this species feeding on fruit or berries before. Neither Bent nor Roberts makes any mention of such observations. — *Whitney Eastman, 7000 Valley View Road, Minneapolis 24, Minnesota.*

* * *

AVOCETS NESTING IN LAC QUI PARLE COUNTY, MINNESOTA — In 1932, T. S. Roberts, in his *Birds of Minnesota*, stated that the American Avocet, ". . . has long been extinct in Minnesota." He further stated that the last positive record at the time of his writing was in 1892. After an absence of

fifty-two years, the American Avocet was again reported in Minnesota in May of 1944 at Duluth (*Flicker*, Oct. 1944). Since then, there have been some sixteen published records (all but one of which are for the western part of the state) in the *Flicker*.

Since Roberts also stated that there were no positive records of the American Avocet nesting in Minnesota, it is presumed that the first nesting for the state occurred on June 20, 1956, near Balaton, in Lyon County, where adults were seen with young (*Flicker*, Dec. 1956). The first actual clutch of eggs was found on May 31, 1959, near Alberta, Stevens County (*Flicker*, Sept. 1959). In view of this, it was our great pleasure to discover the second clutch of eggs for Minnesota on May 21, 1961 at Salt Lake, Lac Qui Parle County, a well-known area to most Minnesota birders for its concentration of shore-birds in migration. The nest was on a bare mud-flat, with no vegetation to afford any cover. The four eggs were an olive-brown color, with brownish-black splotches (see accompanying photograph) and were about two inches in length, tapering sharply at the small end.



American Avocet Nest, Lac Qui Parle County, May 1961

We found the nest as a result of having seen seven American Avocets on April 23, 1961, five on April 29, seven again on May 5 and May 6. On May 21, when we found the nest, there were 14 American Avocets present on the lake. An American Avocet was also seen May 21 near Big Lake, east of Herman, Grant County. — Ronald L. Huber, 3121 Georgia Avenue S., Minneapolis 26, Minnesota.

* * *

MINNESOTA'S SECOND CATTLE EGRET — On the morning of May 13, 1961, Ray Glassel, Richard Grant and the Huber brothers were birdwatching in Houston County. At approximately two-ten in the afternoon, we turned off on Minnesota Highway 26 from U.S. Highway 16 (about four miles south of La Crescent). We had just observed Yellow-crowned Night Herons and the Prothonotary Warbler at La Crescent, and were on our way to Brownsville and Reno. One mile south of the intersection, we crossed a steel-girder bridge over the Root River. Less than a hundred yards beyond, we noticed a small white bird standing along the edge of a watering ditch for cattle. At first it appeared to be a white domestic duck. When we stopped to investigate, it unfurled its neck and we saw that it was a small white heron-like bird.

We immediately noticed the yellow-orange beak, small size, light-colored legs, and "stains" of reddish-rust color on the crown, lower back and lower breast. The bird was unmistakably a Cattle Egret. As it stood "browsing" at

the edge of the watering-ditch, the breeze caught some of the dull rufous plumes and erected them. The bird's jowls were characteristically prominent and the iris was yellow.

After a few moments, the bird walked up the slight bank and began wandering amongst the Holstein cows which were standing and lying in the grass. The cattle seemed undisturbed by the presence of the bird. After a few exploratory glances, the egret approached one of the reclining cows and made a few abortive pokes at the cow with its beak. The cow merely turned its head to look at the egret but showed no alarm.

While most of the literature states that this species is quite tame, this individual was very wary of our presence and flew at our approach. This is apparently the second occurrence of this species in Minnesota. The first occurrence was near Glenwood, Pope County, in 1959, seen by Mrs. Darrell M. Hanna of Sioux City, Iowa (*Flicker*, Vol. 31, No. 3, p. 103, Sept. 1959).

The bird had flown to the far end of the watering-ditch at our approach. Since the watering-ditch was depressed from the surrounding grazing-land, the bird was out of sight when it dropped down to the water's edge. Hence we could not see it nor could it see us. I decided to see how closely I could approach the bird. When I finally reached the very edge of the ditch, there was the egret not more than twelve feet from me. The bird was naturally startled, and flew to a tree about one hundred yards distant. There it remained perched until we departed.

We went farther south in Houston County to continue birding. In about an hour, we returned to the scene but the bird was not to be found. It was apparently still in the area, however, because the farmer, Mr. Feldmeier, later told us that he had seen it the next day. The exact locality was NE $\frac{1}{4}$, S 34, T 104 N, R 4 W. The area is bounded on the south by flat, short-grass grazing fields which finally rise behind the farm house and become a high cliff. On the west there are large cultivated fields for half a mile. On the east, highway 26 was paralleled by railroad tracks. On the north, a sparse scattering of hardwood shade trees which continued to the edge of the Root River. The area just beneath the trees was not as heavily grazed and so the grass was longer there. This might provide some cover for the egret. R. Grant returned two days later, but was unable to locate the bird. — Ronald L. Huber, 3121 Georgia Ave. So., Minneapolis 26, Minnesota.

BOOK REVIEW

A GATHERING OF SHORE BIRDS by Henry Marion Hall. 242 pages. Edited by Roland C. Clement. Illustrated with 95 black and white drawings by John Henry Dick. Published by the Devin-Adair Company, 23 East 26th Street, New York 10, New York; 1960. Price \$10.00.

This collection of selected writings on shore birds will provide the bird watcher with many hours of pleasant reading and will serve to introduce the neophyte to this fascinating group of birds on which relatively little information in a popular vein has been published. There is little that is new in H. M. Hall's presentation and the amount of information that is given is meager compared to that available in technical journals for most species. **A GATHERING OF SHORE BIRDS** will not, in my opinion, live up to the hope expressed in the publisher's preface that the book will ". . . bridge the gap between a scientific monograph and a popular presentation. . . ."

Roland C. Clement's editing and his chapter titled, "An Introduction to the Shore Birds," add to the ornithological value of the work.

The numerous black and white drawings by John Henry Dick contribute much to the pleasing format of the pages. His sketches of downy young are delightful and refreshing. Many purchasers, however, might consider it unfortunate that in many cases the illustrations are more decorative than useful for species identification.

The major portion of the book is made up of brief accounts of the 57 species of shore birds which have been known to breed in North America north of the Panama Canal. This is followed by chapters of annotated lists; "The South American Shore Birds," "American Shore Birds in Europe," "European Shore Birds in America," and "Siberian Shore Birds in America."

Throughout the species' accounts emphasis appears to be more on unusual observations rather than on basic life history. This emphasis coupled with extreme anthropomorphism and a casual treatment of recent research reports is of little value to ornithologists or other scientists.

For example, of the Piping Plover he states, "I have held fluffy chicks in the palm of my hand and seen their indomitable souls looking out of their black and limpid eye—eyes indescribably guileless and beautiful."

Although little has been published on many species of shore birds a voluminous literature exists for the American Woodcock and the Common Snipe (Erickson, A. B., *Bibliography of Wilson's Snipe, Flicker* 22:23-26, 49-60, lists 250 sources). No references are cited in Hall's accounts of these two species.

A bibliography of 71 entries seems quite brief for accounts of 57 species. The index is misleading, incomplete and occasionally inaccurate; *i.e.*, "Wilson's" Snipe is indexed only to page 229—there is no mention of it on that page and no indication in the index that one could find information on it on pages 12 or 87. Jack Snipe, by which the Common Snipe is frequently known, is indexed only to the Old World species, *Lymnocyptes Minimus*, and this species is called by two different common names but indexed to only one. These shortcomings are viewed as especially serious in a book aimed at amateurs who cannot be expected to be up-to-date on the latest name changes.

The binding and format of this book are excellent and the volume will provide interesting and enjoyable reading for the bird watcher.

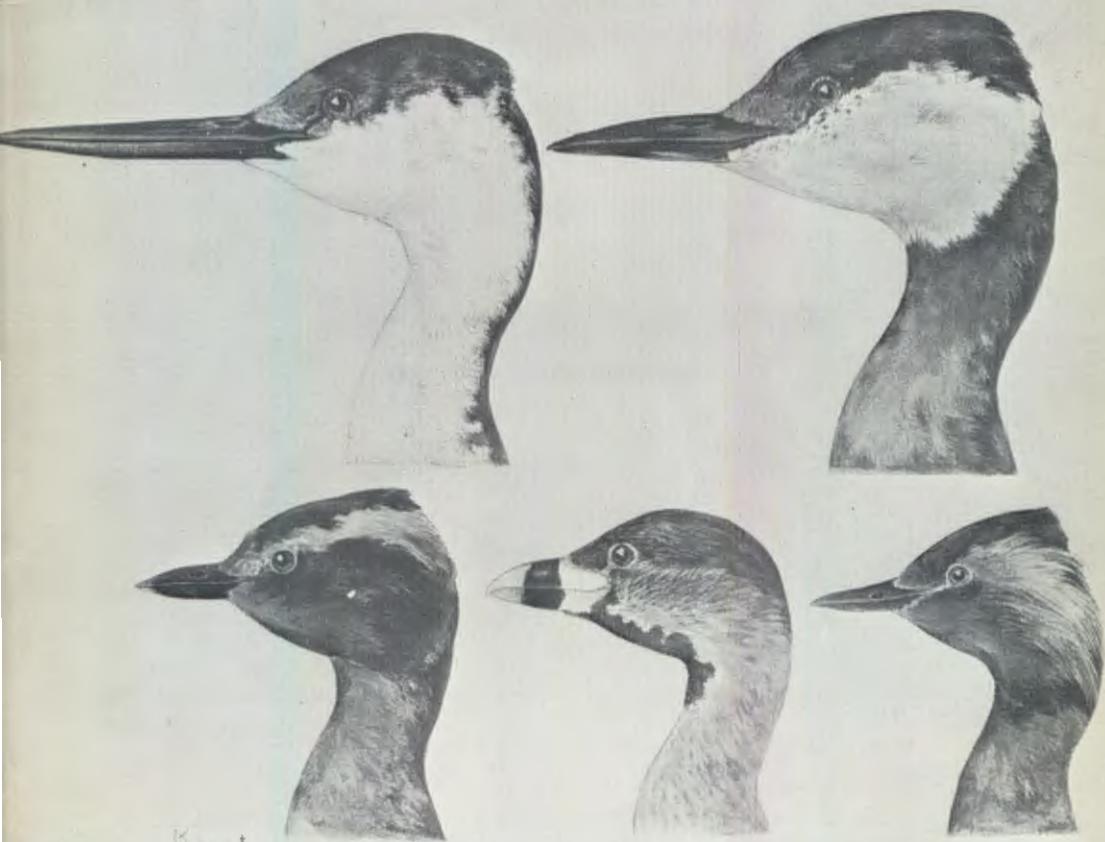
John R. Tester, Ecologist, Museum of Natural History, University of Minnesota, Minneapolis 14, Minnesota.

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THE FLICKER

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Associate Editor — Dwain W. Warner, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.

FRONT COVER

Kako Morita painting of Minnesota Grebes. From left to right: Western Grebe, Red-necked Grebe, Horned Grebe, Pied-billed Grebe and Eared Grebe.





EARED GREBE NEST
Swan Lake, Nicollet County



RED-NECKED GREBE NEST
Swan Lake, Nicollet County
Photos by Robert B. Janssen

THE PRESIDENT'S PAGE

In that last three years one phase of bird study has been developing in Minnesota at an accelerated pace compared with past years. I am thinking of the banding of birds.

Previous to this time bird banding was carried on for about 30 years by some 100 individual banders who were scattered about the state, the University of Minnesota, under the direction of different professors; and the Minnesota Department of Conservation. Reports from these three sources were few and far between. Occasionally we find a note of some banding returns in *THE FLICKER*, but there was no organized system of reporting. During this period the number of birds banded was comparatively low. Part of the reason was that wire traps were the only means of catching the birds and some of the people holding Federal banding permits never went to the trouble to make or purchase these traps. About 1955 some of the banders began to use Japanese mist nets and the number of birds caught climbed noticeably, and so did the number of returns.

As we look at the list of persons who hold Federal bird banding permits we find that they fall into six different classifications:

1. Persons who live and band in another state but also have a Minnesota banding permit.
2. Persons who began to band predatory birds before they were put on the protected list and who, as yet, do not have a Federal or State permit to band birds—although they still have bands from the Department of Interior and continue to band hawks.
3. Persons who applied for and received a Federal permit, but have made no attempt to trap and/or band even one bird.
4. Persons who applied for and received a Federal permit and made a specific study of birds and then have quit their active participation.
5. Persons who applied for and received a Federal permit and band a few dozen to several hundred birds a year, primarily in their back yard—home banding station.
6. Persons who applied for and received a Federal permit and are banding, not only in their own back yard, but in addition are carrying on extensive netting and banding operations in stated places throughout the State each year.

In 1958 a report was made in the September issue of *THE FLICKER* (30:3, pp. 118, 119) by Boyd Lien of the banding carried out in the State during 1957 by 12 individual banders who had banded a total 3,678 birds of 111 species. Since then further reporting on the total number of species and of birds banded has been done, *The Minnesota Bird Bander*, a mimeographed report, parts of which were later published in *THE FLICKER*, (31:3, pp. 88-95; 32:2, pp. 48-55 and in this number). Since 1957 the total number of species banded has risen to 225. In the year 1959 there were 18,489 birds banded. The sharp rise has been due to the large number of birds banded by the Minnesota Department of Conservation and the Federal Refuges. However, the majority of the birds banded are being banded by individual, volunteer banders.

The mimeographed reports also carry short, personal items about the bander's home station, bait, traps and "how-to" articles. To date these have not been published in *THE FLICKER* for some members have had the feeling

that they might not be of sufficient interest for the total membership of the Minnesota Ornithologists' Union.

The reports of banding which were published in *THE FLICKER* were of sufficient interest however to receive special notice in, *THE RING*, International Ornithological Bulletin. Dr. W. Rydzewski, the editor, commented that what the Minnesota banders were doing other states could profit from, for such reporting, "stimulates efforts, publicizes banding and increases interest in banding work. The present list is another step towards the popularizing of banding in Minnesota and simultaneously is the first attempt at listing banders and showing their distribution in a State." (Vol. 11, No. 25, Nov. 1960, p. 283.)

Over a period of five years, including 1961, some patterns will begin to present themselves in our banding activities. (1) We will be able to tell where we can find different species of birds, if we want to make a special study of specific species. (2) We will know what species are being found in the State that are new. Of course you can tell some of this through observation, but there is more accuracy in having a bird in the hand than in a field of view through the binoculars. (3) We are finding that some species we thought rare are generally distributed throughout a much larger area in the State. (4) By spending practically the same amount of time in a given banding place each year we are able to tell something of the number of birds and species present in any given year. (5) By banding at colonies of birds we are learning something about the number of birds present each year and the number of banded birds that return from other years.

As we look at the number of known banders in Minnesota (68), and know that at least (29) have not been active during the past four years we see how small an opportunity there is for recoveries of birds that have been banded in Minnesota. Along the east coast of our country, the Atlantic flyway, there are hundreds of banders and they often catch birds that other banders have banded only a day or two previous. We need many more active banders in Minnesota. We can get them from two sources: ONE, those persons having Federal permits could renew their State permit, annually, and become active. If they lack the know-how then they should make the effort to contact some active bander and learn how to make traps and become efficient in the use of Japanese mist nets. TWO, we need to encourage persons who know their birds real well to become qualified banders.

To become a qualified bander a person must be at least 18 years of age; must have three persons, who know of the applicant's ability to identify birds well enough, to vouch for him; must be willing to keep the required records; must be willing to undertake specific study projects, and must secure a State permit annually. In order to know what is required in the way of record keeping the applicant should visit an active bander and talk with him, or her, about their work, see their records and their traps and nets in operation.

Not only is the banding of birds a fascinating hobby, but you can see the many different characteristics and colors of birds in the hand which you cannot see while they are in a tree, shrub or on the ground. In addition your birding activities may contribute something to scientific knowledge.—*Rev. Forest V. Strnad, Kasson, Minnesota.*

OBITUARY — GEORGE O. LUDCKE, SR. 1886-1961



The Minnesota Ornithologists' Union lost one of its most warmly regarded members with the passing of George O. Ludcke, Sr. on August 9, 1961. He is survived by his wife, Jessie; a son, George, Jr.; and a daughter, Mrs. Wilbur Palm, all of Minneapolis.

Mr. Ludcke was a native of St. Peter, Minnesota and has lived in Sioux City, Iowa and Minneapolis since 1906. He worked as manager of the former Murphy-Travis Printing Co., Minneapolis, and on the staffs of several newspapers. Since 1942 he has been associated with the John Hancock Life Insurance Co.

The study of birds was a driving force in his life for over 60 years. In his youth he worked closely with ornithologists in Iowa and Minnesota and during his lifetime maintained close contact with the fields of ornithology and conservation. George was an active member of the M.O.U. and the National Audubon Society. He was a founder and ardent supporter of the Wisconsin Audubon Camp and he and his wife were Camp Co-ordinators for Minnesota.

Many other aspects of the outdoors interested George and he hunted, fished, swam and enjoyed nature with great verve. His memberships in the Izaak Walton League and the Minneapolis Athletic Club attest to his zest for life.

George's enthusiasm, integrity, warmth and personal interest in helping his fellow men resulted in his making valuable contributions to ornithology and conservation. He was a most respected friend and will be missed by all. — *John R. Tester, Minnesota Museum of Natural History, University of Minnesota, Minneapolis 14, Minnesota.*

NOTES ON GREGARIOUS BREEDING SEASON BEHAVIOR OF THE TREE SWALLOW

by

Robert R. Cohen

Six species of swallows, family Hirundinidae, breed in midwestern United States. Interestingly, all of them are of different genera, that is, no two of these species are considered similar enough to be of the same genus. The Tree Swallow, *Iridoprocne bicolor*, appears to be territorial in breeding habits, in contrast with the predominantly gregarious habits of the others.

Although in the usual case a lone pair of Tree Swallows inhabits and defends a sizeable territory, there are records of several pairs nesting in the same dead tree. Presumably, intermediates to these extremes have also occurred. Such great variation in a basic behavior pattern of a species is quite unusual. It may be understood in this case if it is theorized that gregarious breeding behavior is the primitive behavior of the Hirundinidae, and that that of the Tree Swallow is a departure from it, perhaps a stage in an evolutionary transition to a strictly territorial behavior.

At first investigation of lone territorial pairs it may seem that the breeding behavior of this species is entirely territorial, that they are as hostile as could be imagined toward others of their species. Yet, with closer study, facets of their behavior appear that point to a gregarious ancestry.

A highly agitated, chattering, shrieking, fighting pair of resident Tree Swallows is a common sight during the first periods of the breeding season. The moment another Tree Swallow flies near their territory they begin chattering or fly out to intercept it and drive it away. A battle royal takes place when a few outsiders congregate in the area, making passes at the birdbox and harassing the resident pair.

But herein lies an interesting point: what of the behavior of these invad-

ers? Observations have shown that they often appear to be drawn in by the chattering of the resident pair and that they exhibit great curiosity about the birdbox. Two or even three outside pairs may be present at once, usually paying little attention to each other—all interest and actions are usually centered toward the birdbox. An outright, belligerent attempt to gain possession of the birdbox by driving away the resident pair or other outside pairs has never been observed by this author.

This behavior sometimes seems more like a game than that exhibited by most other territorial species. Oftentimes the invaders are birds of neighboring areas with well-established territories and themselves in stages of nest-building or egg-laying, nevertheless showing great curiosity about other birdboxes.

Turning back to a study of the defending resident pair, it is apparent that their behavior is not strictly that of belligerent territorial defense. In the midst of fighting, chasing, chattering, and shrieking, the pace may suddenly slow to the point where all individuals are sitting quietly on the wires, defender near invader, eying each other or the birdbox. The resident male may give a call of satisfaction at the time of this change; an invader may be seen preening during this period. This may continue for as long as a few minutes, and may be terminated by movement of the invader toward the birdbox, directly out of the territory as if being bored with the situation on hand, or by a sudden attack-and-chase by the defender.

An incident was observed this season in which territorial behavior of this species was temporarily abandoned. Overcast, still conditions prevailed in Duluth in the morning of May 13, 1961, when, at 7:40, a light rain commenced. Immediately, appar-

ently all of the swallows of the region were up in the air catching insects, flying at moderate to low altitudes, randomly, with no suggestion of actions of territorial invasion, curiosity, or defense. This "free-for-all" continued until just after the rain stopped at 8:00 a.m., when a gradual resumption of territorial behavior was observed. By 8:10 the hectic-appearing usual territorial behavior actions were back in full progress.

To bring out further instances along these lines, I might relate a rather unusual account. A brightly-colored female of a pair observed this season was found dead, and unmarked, one morning below the birdbox in which it had completed a nest and laid four eggs. The nest and eggs were removed in hopes that a second nesting would take place. The male remained in the territory, usually sitting quietly on the wires and occasionally flying to the birdbox and calling for its mate, until the next morning, when it flew off. Approximately one-half hour later a bird which, from its coloration and subsequent actions, was almost certainly the same male, flew into the territory with a very brown, young-appearing female, and without hesitation proceeded to lead her directly into the birdbox. Within an hour the female had begun nest-building, setting an usually rapid and tireless pace. This contrasts with the usual case in which several days pass from the time when the box is first accepted and defended to when the nest-building is begun. Unless this was a different male, he certainly had worked rapidly; from the above-described actions of the female, one is led to imagine a very quick, business-like agreement being reached, due to the lateness of the season.

Of interest to us here, however, are the actions of this female when invasions took place during her nest-building. Normally the female will be immediately alerted by the chattering of the male, stop building, and defend the box and territory with the male. This individual, however, only continued her tireless pace of nest-building, amidst all of the noise and actions of territorial defense by her mate.

This pair proceeded to raise five healthy youngsters. With their late start, they were approximately one and one-half weeks behind most of the pairs in the region. At the time when the young of this pair were almost ready to leave the box, the other boxes of the area had been vacated for several days, and the parents and young had apparently left the area for the season. At this time, however, adult swallows, four of which were tentatively identified as those from the two neighboring territories, appeared on the scene. They showed great curiosity about the birdbox, as did the invaders in the early nesting periods, however they were more bold, landing at the box and looking in at the young instead of merely hovering in front of it. The resident pair, busy feeding their young, seemed to regard these birds only as nuisances, and continued their food-getting in a relatively normal fashion. Often they would have to literally push one of the outsiders away from the hole in order to reach the young. Other than this they paid little attention to these birds. One outsider, apparently the female from the territory to the east, became so familiar with the box that she repeatedly entered it, remaining in for up to a half-minute. No fuss was made by either of the parents on finding her in with their young.

Apparently these birds, with their nesting cycle completed, had remained in or returned to their breeding area and had shown very great interest in a nesting of their species which was still in progress.

These accounts have pointed out incidents of breeding season behavior of the Tree Swallow that seemingly depart very radically from the familiar strictly-territorial behavior of other passerine species. The curiosity of the invaders and the occasional lapses in or lack of defensive territorial behavior are possibly due to remnant fragments of predominantly gregarious behavior patterns of their ancestry: the great variation in the breeding season behavior of the species may be indicative of an evolutionary transition in this major behavior pattern. — 719 E. Sixth Street, Duluth 5, Minnesota.

THE MINNESOTA BIRD BANDERS

by

Gary C. Kuyava

BANDING TOTALS FOR 1960

This is the third annual report of the results of a full year of banding by the Minnesota Bird Banders. In the year of 1960, 14, 548 individuals of 183 species were banded. This is approximately 4,000 individuals and 6 species less than last year.

The 1960 report includes data from 31 banders and/or offices. This is two more reporting stations than last year. It was very gratifying to get the reports of the Minnesota Department of Conservation and the three National Wildlife Refuges. They added much to this report, especially in the line of waterfowl.

It should be noted that the banding reported by Dr. Dwain W. Warner was done, for the most part, by his students. It was this author's pleasure to band a great many of those he has reported in a mist-netting census study at Itasca State Park in June and July.

The table is compiled in the numerical order as it appears in the 1957 edition of the A.O.U. CHECKLIST OF NORTH AMERICAN BIRDS. The A.O.U. numbers, however, are not included. Also, those species which received new names which are included in this report without special notification.

Some of the interesting rarely banded birds reported in 1960 were: Pratt's Whistling Swan, Johnson's three Dowitcher's which were not identified to species (see *FLICKER* 33:2, pp. 32-33), Huber's Upland Plover, Johnson's and Strnad's Swainson's Hawks, Dr. Warner's Bald Eagle, Strnad's Barn Owl and Kuyava's Hoary Redpoll.

Gary Kuyava and Stanley Elems tied in 1960 for the most birds banded, each with 2,478. Carl Johnson has the honor of banding the most species with 121. This is the second year in a row that Kuyava and Johnson have held these positions.

As I go over and over 1960's banding results many thoughts come to my mind. Among them are these: Who are these people who band so many of Minnesota's birds? Why do they do this? Are there ways of making bird banding a more valuable effort? Lastly among the three major types of banding, i.e. wandering, sedentary and colonial, which is the most valuable?

Minnesota's banders offer a good cross section of the state's population. They are students of colleges and universities, housewives, wildlife managers, butchers, bakers, ministers, jewelers, and teachers in high school or college. Even though they have such a varied background they now have but one thought—to band as many birds as is possible in the free time they have to spend.

Banders try to "ring" as many birds as possible because banding is a means to an end. Banded birds lend themselves to science in ways other birds cannot. Many interesting facts have been learned from banded birds by observation and recovery. Many aspects of life history such as daily rhythm, behavior, migration routes, speed of migration, parasites effecting them and many physiological studies. Yes, banding is a means to an end, but it is also similar to the fever of anxious fishermen. Each bander looks forward to that new species. We can never predict what we are going to trap or net. We find birds others never seem to see and we learn things about living birds which a non-bander has no opportunity to learn.

Even with all the work this state's banders have done, much more remains to be done. For instance more of us could compile complete moult data, measure our birds, and collect their parasites. Lastly—more stations could participate in Operation Recovery. Only one station has and this was only for one season in the last three years.

What about the three major types of banding in Minnesota? Is one really more valuable than the other? After much thought, discussion and correspondence I think that each has things equally important to offer. The wanderer discovers new birds not previously known to the area and if a systematic study is done a great deal of information can be gathered on habitats, food and abundance. The sedentary bander, such as this author can establish population fluctuations over a period of years, gather much material on migrations and wave composition during a season for one area, and can afford to spend a great deal

of time studying individual birds. The colonial bander does a great amount of work on a few species concerning all aspects of their life history including the most interesting differences in the ranges of birds of different ages.

As a closing thought I would like to say that this is perhaps my last year in Minnesota. I would like to thank all the M.O.U., especially the banders and the museum staff for all the help they have given me and for getting me off to such a good start in so interesting an avocation! Good Banding. — 1611 N. 7th Avenue East, Duluth, Minnesota.

TABLE I
Minnesota Bird Banders
Totals — 1960

NAME	TOTAL SPECIES	TOTAL BIRDS BANDED
1. Cohen, Robert R.	51	297
2. Culbertson, Mrs. G. H.	17	126
3. Elms, Stanley	67	2,478
4. Findley, J. Scott	60	382
5. Goehring, Harry H.	40	111
6. Grewe, Al	27	685
7. Gullion, Gordon	7	109
8. Hanson, Harold R.	21	768
9. Holden, Mrs. David J.	4	19
10. Huber, Ronald	4	7
11. Jiracek, Walter	4	19
12. Johnson, Carl M.	121	1,357
13. Kuyava, Gary C.	68	2,478
14. Leach, Mrs. Robert	42	679
15. Lien, Boyd M.	45	286
16. Minnesota Dept. of Conservation	13	532
17. Mud Lake Nat. Wildlife Refuge	8	1,382
18. Olyphant, Jr., Mrs. Murray	48	957
19. Orke, Donald	76	452
20. Reisinger, Joseph H.	17	88
21. Rustad, Orwin A.	77	601
22. Rysgaard, George N.	15	75
23. Selnes, Mrs. E. R.	28	324
24. Smith, J. Morton	15	72
25. Strnad, Forest V.	97	1,181
26. Ellerbrock, Jr., Wm. J.	1	650
27. Warner, Dr. Dwain W.	39	599
28. Upper Miss. Wildlife Refuge	3	176
29. Woolverton, Edwin	5	19
30. Pratt, Walter E.	5	33
31. Rice Lake Nat. Wildlife Refuge	12	1,661

TABLE II
Total Birds Banded
Minnesota — 1960

NAME	TOTAL	NAME	TOTAL
Herring Gull	203	Cooper's Hawk	1
Franklin's Gull	1	Goshawk	1
Common Tern	656	Red-tailed Hawk	5
Black Tern	4	Swainson's Hawk	2
Hooded Merganser	2	Broad-winged Hawk	3
Mallard	1,442	Rough-legged Hawk	1
Black Duck	9	Bald Eagle	1
Gadwall	1	Sparrow Hawk	5
American Widgeon	2	Barn Owl	1
Green-winged Teal	1	Long-eared Owl	2
Blue-winged Teal	232	Barred Owl	2
Shoveler	5	Saw-whet Owl	1
Pintail	61	Screech Owl	9
Wood Duck	163	Great Horned Owl	8
Redhead	41	Black-billed Cuckoo	6
Canvasback	22	Belted Kingfisher	14
Lesser Scaup	9	Hairy Woodpecker	43
Ring-necked Duck	93	Downy Woodpecker	144
Common Goldeneye	12	Yellow-bellied Sapsucker	18
Ruddy Duck	3	Red-headed Woodpecker	24
Canada Goose	13	Red-bellied Woodpecker	12
Whistling Swan	1	Yellow-shafted Flicker	28
Virginia Rail	4	Common Nighthawk	4
Sora	2	Chimney Swift	54
American Coot	34	Ruby-throated Hummingbird	7
American Woodcock	2	Eastern Kingbird	6
Common Snipe	36	Great Crested Flycatcher	11
Dowitcher (Species—?)	6	Eastern Phoebe	7
Stilt Sandpiper	26	Olive-sided Flycatcher	1
Knot	2	Eastern Wood Pewee	18
Pectoral Sandpiper	15	Yellow-bellied Flycatcher	4
Baird's Sandpiper	2	Traill's Flycatcher	49
Least Sandpiper	44	Least Flycatcher	73
Dunlin	1	Horned Lark	4
Semipalmated Sandpiper	88	Blue Jay	380
Sanderling	2	Common Crow	7
Lesser Yellowlegs	9	Starling	117
Solitary Sandpiper	7	Brown-headed Cowbird	52
Spotted Sandpiper	13	Yellow-headed Blackbird	3
Upland Plover	2	Red-winged Blackbird	130
Killdeer	28	Eastern Meadowlark	3
Semipalmated Plover	6	Western Meadowlark	3
Piping Plover	2	Baltimore Oriole	36
Ruffed Grouse	5	Rusty Blackbird	8
Ring-necked Pheasant	7	Brewer's Blackbird	1
Mourning Dove	814	Common Grackle	574
Marsh Hawk	1	Evening Grosbeak	478
Sharp-shinned Hawk	19		

NAME	TOTAL	NAME	TOTAL
Pine Grosbeak	18	Tennessee Warbler	13
Purple Finch	538	Parula Warbler	1
Hoary Redpoll	2	Cape May Warbler	11
Common Redpoll	503	Yellow Warbler	68
American Goldfinch	61	Black-throated Blue Warbler	1
Vesper Sparrow	7	Myrtle Warbler	219
Savannah Sparrow	12	Magnolia Warbler	8
Grasshopper Sparrow	1	Chestnut-sided Warbler	9
Lark Sparrow	4	Bay-breasted Warbler	220
Harris' Sparrow	92	Blackpoll Warbler	4
White-crowned Sparrow	30	Blackburnian Warbler	5
White-throated Sparrow	768	Black-throated Green Warbler	2
Tree Sparrow	125	Pine Warbler	1
Chipping Sparrow	62	Palm Warbler	67
Clay-colored Sparrow	11	Ovenbird	34
Field Sparrow	60	Northern Waterthrush	57
Slate-colored Junco	1,318	Connecticut Warbler	1
Oregon Junco	5	Mourning Warbler	21
Song Sparrow	201	Yellowthroat	50
Lincoln's Sparrow	78	Wilson's Warbler	5
Swamp Sparrow	64	Canada Warbler	4
Fox Sparrow	65	American Redstart	47
Rufous-sided Towhee	3	Catbird	350
Cardinal	71	Brown Thrasher	93
Rose-breasted Grosbeak	39	Bewick's Wren	1
Indigo Bunting	15	House Wren	148
Scarlet Tanager	7	Short-billed Marsh Wren	3
Purple Martin	38	Winter Wren	3
Cliff Swallow	691	Brown Creeper	11
Barn Swallow	45	White-breasted Nuthatch	86
Tree Swallow	42	Red-breasted Nuthatch	10
Bank Swallow	50	Tufted Titmouse	10
Rough-winged Swallow	26	Black-capped Chickadee	306
Bohemian Waxwing	2	Boreal Chickadee	4
Cedar Waxwing	137	Golden-crowned Kinglet	3
Northern Shrike	1	Ruby-crowned Kinglet	23
Loggerhead Shrike	4	Wood Thrush	3
Red-eyed Vireo	24	Veery	44
Warbling Vireo	22	Gray-cheeked Thrush	7
Yellow-throated Vireo	1	Swainson's Thrush	30
Black and White Warbler	16	Hermit Thrush	8
Prothonotary Warbler	1	Robin	399
Blue-winged Warbler	2	Eastern Bluebird	54
Nashville Warbler	30	TOTALS—Species	183
Orange-crowned Warbler	10	Individuals	14,548

THE NESTING SEASON

by

Ronald L. Huber

Weather: The weather for the summer was not particularly unusual, except for the comparative lack of precipitation. Hardest hit in this respect was the northwestern portion of the state. Members of the Avifaunal Club made numerous trips to that portion of the state to study some of the grassland birds. We found things to be fairly normal there up until mid-June, but by mid-July, the effects of the drought could be clearly seen. Marshes dried up, meadows became brown and parched. Salt Lake, Lac Qui Parle County, a well-known area to most of us, was nothing more than a brackish puddle by the first week of August.

General Considerations: The usual seasonal pattern will be extolled here, but we shall address ourselves primarily to treating of nesting species. Data was accumulated from 13 observers who traversed 26 counties. This was a small number of observers as compared with some previous nesting seasons. Most of the material is again from the same few observers. The Huber brothers alone recorded 53 nesting species from 15 counties. Again let me invite all of you to submit your records, no matter how few. A total of 100 species were reported nesting, a fair total, considering that less than one-third of the state was covered.

LOONS AND GREBES:

Common Loon with young seen by R. Grant on 28 July along Canadian border at end of Gunflint Trail. Two adults seen near Waubun, Mahnomon County on 4 July by Avifaunal Club members. One adult seen just south of Itasca Park on Highway 113 by R. Huber on 5 Aug. A. C. Rosenwinkel saw two adults and two young on 24 July at Big Whitefish Lake, Crow Wing County.

Red-necked Grebe: Two nests with three and four eggs seen at Swan

Lake, Nicollet County on 24 June and 8 July, respectively, by Avifaunal Club members. See article elsewhere in this issue.

Eared Grebe: Ten nests examined by Avifaunal Club members on 24 June at Swan Lake each contained from two to four eggs. On 12 July at the same area, 12 nests each contained from one to three eggs. Many more nests were seen but not examined as to contents. See article elsewhere in this issue.

Western Grebe: Two nests containing one and three eggs, seen by the Huber brothers at Swan Lake on 24 June. See article elsewhere in this issue for details of this uncommon nesting.

Pied-billed Grebe: H. Huber saw an adult with five chicks in Minneapolis on 10 June; on 24 June, many young of all sizes seen at Swan Lake by the Huber brothers; in Mahnomon County, near Waubun, Avifaunal Club members saw an adult with three young on 4 July; A. C. Rosenwinkel reports four broods near St. Paul on 1 July.

PELICANS:

White Pelican: On 24 June, the Huber brothers saw nine White Pelicans at Swan Lake.

HERONS, BITTERNES, EGRETS:

Great Blue Heron: Forest Strnad found 610 nests near Faribault, Rice County on 7 July. He banded five immatures. R. Grant reported 200 on nests in Ramsey County as early as 6 April.

Black-crowned Night Heron: Dave Pearson reports a nest with three eggs at Swan Lake on 6 July.

Yellow-crowned Night Heron: Two nests, occupied, seen near La Crescent, Houston County on 13 May and again on 30 May, by Avifaunal Club members. Seen again 14 July by R.

Janssen. Nests were about 85 feet up in trees.

Common Egret: Forest Strnad found 19 nests near Faribault on 7 July. He banded one immature. Many adults seen all summer at Dorer Pools near Whitewater Park, Winona County and near Reno, Houston County, by Avifaunal Club members. One seen on 9 July near Shakopee, Scott County (see M.O.U. Call Notes, Vol. 1, No. 3). One seen on 4 August at Salt Lake, Lac Qui Parle County by R. Huber. It is interesting to note that while occasionally we have a sparse egret year, they are generally a common summer resident; a sharp contrast to the situation when Roberts wrote the *Birds of Minnesota*.

American Bittern: An adult was seen feeding three downy young near Norwood, Carver County, by Avifaunal Club members on 23 July.

Least Bittern: Seen by Avifaunal Club members on 24 June and 8 July at Swan Lake.

DUCKS, GEESE AND SWANS:

Mallard: A. C. Rosenwinkel saw three broods of young in Ramsey County between 13 June and 14 July.

Black Duck: A. C. Rosenwinkel reports a brood of four in Ramsey County on 14 July.

Blue-winged Teal:

Wabasha County, 10 June, 10 young near Lake City, Huber brothers

Hennepin County, 24 June, 11 young, Minneapolis, H. Huber
Mahnomen County, 4 July, two broods of five and seven, near Waubun, Huber brothers

Ramsey County, 14 July, three broods at Goose Lake, A. C. Rosenwinkel

Washington County, 7 July, seven young, Dean Honetschlagler

American Widgeon: Small flock of adults seen at Swan Lake, 8 July by R. Janssen.

Wood Duck: H. Huber reports 22 young at La Crescent on 1 July. A. C. Rosenwinkel saw four broods in Ramsey County between 14 June and 14 July.

Redhead: Avifaunal Club members report five broods of eleven, eight, seven six, and four young near Waubun, Mahnomen County on 4 July.

Ring-necked Duck: An adult and nine young were seen near Mahnomen, Mahnomen County on 4 July by members of Avifaunal Club.

Canvasback: On 17 June, Avifaunal Club members saw an adult with eight young near Waubun.

Ruddy Duck: A. C. Rosenwinkel reports 10 males, two females and six half-grown young on 14 July at Goose Lake, Ramsey County.

Red-breasted Merganser: A. C. Rosenwinkel saw three broods on Lake Superior, just south of Gooseberry Park, Lake County, from 14-18 August.

HAWKS, VULTURES, EAGLES:

Red-tailed Hawk: R. Grant reports an adult incubating one egg on 9 May, Hennepin County.

Red-shouldered Hawk: On 30 March, R. Grant saw a pair adding fresh twigs to a nest used three of the last four years in Ramsey County. Dave Pearson reports a nest nine miles north of Anoka, Anoka County; no date given.

Osprey: R. Grant reports a pair at Clearwater County. Dave Pearson found a nest with three young at Many Point Scout Camp, Becker County, during week of 20-25 August.

Marsh Hawk: R. Grant found a nest with three young and an egg on 17 June, near Waubun.

Swainson's Hawk: One seen by Lowry Elliott on 20 August near Salt Lake, but in South Dakota. Two seen 17 June near Brown's Valley, Traverse County.

Ferruginous Hawk: Lowry Elliott saw "a large rough-leg hawk" that must have been this species on 20 August near Salt Lake but in South Dakota.

Peregrine Falcon: William Pieper observed this species stoop and take a Yellowlegs on 21 August near Redwing, Goodhue County.

Turkey Vulture: Several seen on 10 June and 1 July near Reno, Houston County, by the Huber Brothers.

Bald Eagle: H. Vogel saw an adult fighting with an Osprey on 7 July at Star Island, Cass Lake, Cass County.

GALLINACEOUS BIRDS:

Ruffed Grouse: An adult with ten young was seen by the Huber brothers on 1 July near Freeburg, Houston County. Dean Honetschlager saw a hen with four young on 9 August near Star Island.

Greater Prairie Chicken: Avifaunal Club members saw several near Syre, Norman County, on 17 June. Three seen between Ulen and Felton, Clay County on 4 August, by R. Huber.

Sharp-tailed Grouse: Adults with young seen at Rice Lake Refuge, Aitkin County on 29 July by Brother Theodore.

Gray Partridge: Two adults with 17 young seen on 15 July just south of Felton, by Avifaunal Club members.

RAILS:

King Rail: Dave Pearson observed two in the Carlos Avery Refuge, Anoka County on 30 May and again on 20 July.

Virginia Rail: On 8 July, A. C. Rosenwinkel saw five young in Washington County. The Huber brothers found a nest with five eggs at Swan Lake on 24 June. Avifaunal Club members saw two chicks near Waubun on 4 July and four chicks at Syre, on the same day.

Yellow Rail: Seen by Avifaunal Club members on 17 June on Becker-Mah-nomen County line, just south of Waubun. Heard again in same area on July 4. This was the first time we recorded their presence in the month of July.

American Coot: A. C. Rosenwinkel saw several broods in Ramsey County on 13 June. Huber brothers found three adults incubating on 10 June at Grass Lake, Hennepin County, 10 nests containing from four to 11 eggs at Swan Lake on 24 June and adults with young near Waubun on 4 July.

Common Gallinule: An adult with four young was seen on 8 July at Swan Lake by members of Avifaunal Club. Dave Pearson reports young on Diamond Lake, Hennepin County on 25 July and still other young in the Carlos Avery Refuge on 30 July.

SHOREBIRDS:

Only five species were reported as nesting, but at least 28 species seen during the summer months because of late spring migrants and early fall migrants. The overlap of these hegirae makes it possible to record a few of these species during each and every month of the summer.

Killdeer: Nest with four eggs found near La Crescent, on 13 May by Avifaunal Club members. Nest with four eggs on Minnesota Point, Duluth, found by Avifaunal Club members on 27 May. Four young, just out of nest, banded by Avifaunal Club members at Syre on 4 July and still four more young banded same day in Clay County, just south of Norman County line on Highway 82. Two young banded in Hennepin County by R. Huber on 3 July.

American Woodcock: Seen in Carlton County by H. Huber, Cass County by R. Huber, and Wadena County by R. Oehlschlager, all on 26 August.

Spotted Sandpiper: A nest with four eggs was found on Minnesota Point, Duluth on 27 May by members of Avifaunal Club.

Upland Plover: Several nearly-grown young seen on 15 July near Felton by members of Avifaunal Club.

Piping Plover: Two distinct pairs were seen at Salt Lake on 17 June by Avifaunal Club. Nesting very likely. This species used to nest on Minnesota Point, but in recent years it has apparently been displaced by Common Terns.

Willet: A distinct pair and another individual were seen on 17 June at Salt Lake by members of Avifaunal Club. Here, too, nesting is a good possibility. On 1 July, Bob Janssen saw three Willets at Fisher Lake, Scott County.

Knot: Seen by Avifaunal Club mem-

bers at Minnesota Point, Duluth on 20 and 26 August. Fall plumage.

Dowitchers: On 23 July, nine Dowitchers were seen by Avifaunal Club members. Three remained silent, five flew off in another group, uttering a high-pitched, tu-tu-tu (Short-billed) and a lone individual, feeding apart from the others, also flushed, with a high-pitched *keek* note (Long-billed). On 8 July in Carver County, two Dowitchers were seen by the same group, but these birds were silent even when startled. On both of these dates, the Dowitchers were in with a large group of other migrating shorebirds, mostly Lesser Yellowlegs and Solitary Sandpipers.

Western Sandpiper: One seen, at a distance of only a few feet, by members of Avifaunal Club on Minnesota Point, Duluth. Bird had black legs, drooping beak, bright russet-colored back with white markings, and the wings were extended to equal length with the tail while the bird as at rest. Loose sand made it difficult to tell whether or not the bird had any partial webbing of the toes. Date was 26 August.

Buff-breasted Sandpiper: Five seen on 20 August at Minnesota Point, Duluth by Avifaunal Club members. Scattered individuals seen in same area by same observers on 26 August.

American Avocet: Nested at Salt Lake. (See *Flicker*, Vol. 33, No. 2, pp. 41, 57, 58, June 1961.) Birds seen again 17 June by members of Avifaunal Club, at least 20 adult birds seen; probably largest single group of this species ever seen in Minnesota. Birds gone by 4 August, at which time lake was almost dry.

Wilson's Phalarope: Adult with two chicks seen on 17 June, just south of Waubun, but in Becker County, by H. Huber.

Northern Phalarope: Several in fall plumage seen at Salt Lake, on 4 August by R. Huber. This is six days earlier than earliest fall date recorded in Roberts.

JAEGERS:

Parasitic Jaeger: Brother Theodore saw one adult sitting in the sand on

Minnesota Point on 30 August. He approached within 12 feet of the bird. Again on 2 September, other members of the Avifaunal Club visited the area. We saw three Jaegers fly over the recreation area. Shortly thereafter we saw them sitting on Lake Superior near the small lighthouse at the end of the point. They then arose to harass a gull.

TERNs:

Forster's Tern: On 24 June, the Huber brothers found five nests containing two or three each, at Swan Lake.

Common Tern: On 27 May, members of Avifaunal Club found three nests containing one to two eggs each on Minnesota Point, Duluth.

Black Tern: On 19 June at Clearwater Lake, Stearns County, H. Huber saw a nest with two young. Forest Strnad found one young near Claremont, Dodge County, on 20 June.

DOVES:

Mourning Dove: Forest Strnad found 12 nests with either eggs or young in Dodge County between 25 May and 10 August. William Pieper found a nest with two eggs near Rosen, Lac Qui Parle County on 21 May. H. Huber found a nest with two eggs near Roseville, Ramsey County on 3 June. On 24 June the Huber brothers found and banded two nestlings at Swan Lake.

CUCKOOS:

Yellow-billed Cuckoo: Forest Strnad found a nest with two eggs on 3 July near Kasson, Dodge County. The nest was later destroyed.

Black-billed Cuckoo: An adult with a tailless young was seen just south of Waubun on 15 July by R. Huber.

OWLS:

Screech Owl: Forest Strnad found two nests with four eggs each near Claremont, Dodge County on 26 April. R. Grant found an adult with 2 young, Hennepin Co., on May 28.

Great Horned Owl: John Hall saw a half-grown young one in a nest on 9 June near Afton, Washington County. R. Grant reports an adult incubat-

ing on 28 April in Anoka County.

Barred Owl: On 12 July Dean Honetschlager observed three young in May Township, Washington County.

Long-eared Owl: R. Grant found two adults and four young on May 9 in Hennepin County.

NIGHTHAWKS:

Common Nighthawk: A. C. Rosenwinkel reports adult sitting on two eggs on roof of St. Paul Central Lutheran School, 20 June. On 4 July, he saw young peeking out from beneath parent's wing.

SWIFTS:

Chimney Swift: On 23 July, Dean Honetschlager reported young becoming noisy in his chimney at Marine-on-St. Croix, Washington County.

WOODPECKERS:

Yellow-shafted Flicker: Forest Strnad found five nests in Dodge County, between 20 and 26 June. The nests contained from four to five young each.

Red-bellied Woodpecker: Dean Honetschlager reports young in his yard, May Township, Washington County, no date given. Dave Pearson reports young in Anoka County between 20 May and 2 June.

Red-headed Woodpecker: On 24 June, Forest Strnad banded two young in nest near Kasson.

Yellow-bellied Sapsucker: Dean Honetschlager saw many immatures on Star Island, Cass Lake, 6 August.

FLYCATCHERS AND LARKS:

Eastern Kingbird: On 6-7 August, young just out of nest were being fed on Star Island, Cass Lake. Reported by Dean Honetschlager. Two nests near Felton on 4 July contained two eggs and three young. Seen by Avifaunal Club. On 27 June, Miss Ellen Jonas reports two young at Camp Oak Hills, Beltrami County.

Western Kingbird: Four immatures being fed by adult on 5 August near Felton, seen by R. Huber.

Great Crested Flycatcher: Forest Strnad found six young in a nest near Claremont on 7 July. A. C. Rosenwinkel saw three young out of the nest on 16 June, in Ramsey County.

Dean Honetschlager saw four young in nest on south shore of Turtle Lake, Ramsey County on 4 July.

Eastern Phoebe: Forest Strnad found a nest with five young on 16 July near Kasson. Huber brothers found four nests in Winona, Wabasha and Houston Counties between 30 May and 1 July.

Least Flycatcher: A nest containing four eggs and one Cowbird egg was found by H. Huber near Felton on 17 June. Miss Ellen Jonas reports a total of 5 nests, all but one of which contained young, at Camp Oak Hills between 4 May and 3 July.

Horned Lark: A nest with four eggs was found on Minnesota Point, 27 May, by Avifaunal Club members.

SWALLOWS:

All Minnesota species were found nesting this season.

Tree Swallow: Dean Honetschlager reports that nesting began in two boxes at Marine-on-St. Croix on 7 May. Miss Ellen Jonas found a nest with four eggs on 26 June at Camp Oak Hills.

Bank Swallow: Dean Honetschlager reported a large colony north of Stillwater, Washington County, no date given.

Rough-winged Swallow: Forest Strnad banded five young near Kasson on 28 June. R. Huber banded four young near Winona on 1 July.

Barn Swallow: Forest Strnad found 23 nests containing from three to five young each, most of which he banded, in Dodge County between 27 June and 9 August. R. Huber banded three young just leaving the nest near Nimrod, Wadena County on 26 August. A fourth young eluded capture.

Cliff Swallow: Forest Strnad found 25 nests on 28 June near St. Charles, Olmsted County and 100 nests at Whitewater Park, Winona County on the same day.

Purple Martin: Forest Strnad found two nests with young at Kasson on 1 and 6 July and two other nests with young at Frontenac, Goodhue County on 10 July.

JAYS, CROWS, CHICKADEES:

Blue Jay: Forest Strnad banded four young from nest at Kasson on 9 June.

Common Crow: Forest Strnad banded two young from nest on 3 June near Kasson on 6 May. H. Huber saw an adult incubating near Dawson, Lac Qui Parle County. On 13 May he observed a nest with two young near La Crescent.

Black-capped Chickadee: Forest Strnad banded five young on 24 June near Kasson.

WRENS:

House Wren: Six nestlings found at Swan Lake on 24 June by the Huber brothers. Forest Strnad found 11 nests near Kasson between 28 June and 10 August. All contained from four to seven young. Dean Honetschlagler reported two nests in May Township, Washington County, no date given.

THRUSHES, MIMIC THRUSHES, PIPITS:

Catbird: A. C. Rosenwinkel found four young in St. Paul on 6 June. Miss Ellen Jonas found a nest with three eggs on 4 June at Camp Oak Hills.

Brown Thrasher: On 27 May, H. Huber found a nest with three eggs on Minnesota Point, Duluth. On 10 June the Huber brothers banded one young just out of the nest at Reno. Forest Strnad banded two young near Kasson on 7 June.

Robin: A. C. Rosenwinkel reports two broods of three and two on 15 and 24 May, respectively, in St. Paul. Dean Honetschlagler reports two pair nested successfully in his yard in May Township, Washington County, no dates given. Forest Strnad reports five nests at Kasson between 25 May and 19 June. H. Huber found three nests in Hennepin County on 1, 7 and 12 May, Mahnomon County on 17 June and Houston County on 10 June. Miss Ellen Jonas found seven nests at Camp Oak Hills between 12 May and 13 July.

Eastern Bluebird: Forest Strnad found 11 nests with eggs or young between 25 May and 10 August in

in Dodge County. One of these contained four eggs on 10 August, a rather late egg-date for this species. It was apparently a third-nesting by the same pair, all in the same nest-box. Dean Honetschlagler reports two nests in Washington County: one with three eggs on 25 June.

Sprague's Pipit: Seen by Avifaunal Club members on 17 June, 4 and 15 July near Felton. Several males, singing about 200 feet in the air, dropped occasionally to meet females some 20 feet in the air. Although no nests were found, these exchanges of food would seem to indicate breeding.

STARLING: On 24 May, A. C. Rosenwinkel received a live young one, just out of the nest, from one of his pupils in St. Paul.

VIREOS:

Five species were found nesting this season, including the Bell's Vireo.

Bell's Vireo: A nest with four eggs was found at Reno on 10 June by the Huber brothers.

Solitary Vireo: John T. Pratt reports a nest of birch-bark about ten feet up in a Cedar tree at Encampment Forest, Lake County on 29 May.

Red-eyed Vireo: Dave Pearson found a nest at Many Point Scout Camp, Becker County, on 21 August. Miss Ellen Jonas reports a nest with four vireo eggs and one Cowbird egg on 23 June at Camp Oak Hills.

Warbling Vireo: An adult feeding well-grown young was seen at Pelican Lake, Crow Wing County on 26 July by Bob Janssen.

Philadelphia Vireo: Dave Pearson reports adults feeding nearly-grown young on 21 August at Many Point Scout Camp.

WARBLERS:

Of about 40 species that have been seen or taken in Minnesota, about 22 are known to nest here and seven more occur during the summer, for a breeding season total of 29 species. Sixteen of these species were seen this

season but only five were actually found nesting.

Connecticut Warbler: Mrs. John Micensky saw a female feeding one young out of the nest. There are only two previous nestings recorded for Minnesota. Bob Cohen reports two singing males at Duluth: one at Chester Park on 28 June and one at Harbor Island, Minnesota Point, St. Louis County on 25 June.

Prothonotary Warbler: Dean Honetschlager reports them as summer residents at Marine-on-St. Croix.

Blackburnian Warbler: Dave Pearson saw adults feeding juveniles on 25 August at Many Point Scout Camp.

Parula Warbler: Dave Pearson reports adults feeding juveniles on 20 and 25 August at Many Point Scout Camp.

Yellow-breasted Chat: Four adults seen on 1 July at Reno by Huber brothers.

American Redstart: Bob Janssen found a nest two feet off the ground on 1 July near Eden Prairie, Hennepin County. The nest contained two eggs plus two Cowbird eggs. Dave Pearson saw adults feeding juveniles on 20 August at Many Point Scout Camp.

Yellow Warbler: Miss Ellen Jonas at Camp Oak Hills reports that the nest reached the egg stage but was then destroyed.

BLACKBIRDS AND ORIOLES:

Bobolink: A nest with four eggs was found 17 June by Avifaunal Club members. The nest was in Becker County, just south of Waubun.

Western Meadowlark: A nest with two eggs was found at Salt Lake by Avifaunal Club on 6 May.

Yellow-headed Blackbird: H. Huber reports three young being fed by adults at Sugar Lake, Wright County on 19 June. On 24 June, a nest with three eggs was found at Swan Lake by the Avifaunal Club. A. C. Rosenwinkel found three nests on 30 May in north St. Paul. Adults feeding young.

Redwinged Blackbird: On 30 May, A. C. Rosenwinkel found adults feed-

ing young in four nests, St. Paul. The Huber brothers found nests on 21 May, Lac Qui Parle County, 3 June Ramsey County, and 17 June, 4 July in Mahanomen County.

Orchard Oriole: Adult and immature coming to feeder in St. Paul, seen on 1 July by A. C. Rosenwinkel. Adults and many immatures seen at Blue Mounds State Park, Rock County on 23 July by Avifaunal Club.

Baltimore Oriole: On 20 May, Forest Strnad noted nest being built at Elba, Winona County. A. C. Rosenwinkel found adults feeding three young in St. Paul on 10 July. Dean Honetschlager reports two nests in May Township, Washington County; no date given.

Brewer's Blackbird: On 27 May at Minnesota Point, Duluth, a nest with five eggs was found by members of the Avifaunal Club.

Common Grackle: Forest Strnad found 14 nests on 29 and 31 May near Kasson. Reported by H. Huber on 6 May at Lac Qui Parle County, 6 May at Stevens County and 3 June in Hennepin County.

Brownheaded Cowbird: See Least Flycatcher, American Redstart, Red-eyed Vireo.

FRINGILLIDAE:

Dickcissel: On 9 to 20 June Dean Honetschlager found a male singing over alfalfa field in Washington County. Another was seen near Donnelly, Stevens County on 17 June by Del Holdgrafer. Several seen on 10 June south of Hastings, Dakota County by Huber brothers.

Pine Siskin: On 15 April a female was incubating at Lake Harriet, in Minneapolis, Hennepin County; seen by many observers. See *Flicker*, Vol. 33, No. 2, pp. 55-56, June 1961.

American Goldfinch: On 20 August one nestling was shaken from nest on Minnesota Point, Duluth by Avifaunal Club members. Two more nests in Hennepin County on 3, 4 September, found by R. Huber.

Red Crossbill: Small flock heard on 20 August at Minnesota Point, Duluth by Huber brothers.

Savannah Sparrow: On 4 August R. Huber banded three young in nest near Nimrod, Wadena County.

Grasshopper Sparrow: On 4 July near Felton, Avifaunal Club members found two nests with five eggs each. Although the eggs were the same size in either nest, the five of the first clutch were wreathed at the large end with brown markings, almost forming a solid cap. The eggs of the other clutch, about 60 feet away, were rather uniformly sprinkled with brown speckles. This variation was so marked that we at first thought the two clutches belonged to two different species. On 4 August, R. Huber banded four nestlings just northwest of Rothsay, Wilkin County.

Baird's Sparrow: Heard singing by Dr. Breckenridge on 22 June, when he was looking for a Greater Prairie Chicken nest. He saw one Baird's Sparrow at that time, between Felton and Ulen, Clay County. On 4 July, members of the Avifaunal Club visited the same area and found four singing birds. On 15 July at least 20 singing birds were seen and heard.

Le Conte's Sparrows: An adult was seen to feed one young a worm on 26 August in Becker County just south of Waubun, by R. Huber. Bob Cohen reports taking a few specimens about 40 miles north of Duluth on 20 July. These would be the first Boreal Zone specimens for Minnesota.

Henslow's Sparrow: Several seen and heard singing (if it can be called that) near Winona on 1 July by the Huber brothers. On 26 August R. Huber saw an adult and one short-tailed young between Felton and Ulen, Clay County.

Sharp-tailed Sparrow: Seen all summer long in Becker County, just south of Waubun. First seen on 17 June, last seen on 5 August.

Vesper Sparrow: A nest with two eggs was found by Huber brothers on 1 July near Winona. Nest with three eggs reported by Dean Honetschlager on 5 August in May Township, Washington County.

Chipping Sparrow: Dean Honetschlager found a nest with four eggs on 28 May in Washington County.

Chestnut-collared Longspur: Avifaunal Club members saw them during most of the summer between Felton and Ulen. On 17 June, a nest with two nestlings was found. Banded adult female. On 4 July, one large, semi-flying young, still in buffy juvenal plumage was captured and banded. On 15 July, a nest with three young and an unhatched egg was found. The young were banded. On 5 August one adult male, seven brown individuals that were either sub-adults or females, and one short-tailed young were seen.

SUMMARY: Although only a small handful of observers other than the Avifaunal Club had any records to offer, approximately 10 species were recorded breeding. Many other species were seen during the season, some of which were undoubtedly nesting while others were obviously in transit. The drought in western Minnesota undoubtedly reduced the number of small prairie marshes where many ducks, rails and grassland sparrows usually breed.—3121 Georgia Ave. So., Minneapolis 26, Minnesota.

THE CANADIAN LAKEHEAD

by

A. E. Allin

The above-normal temperature of early 1961 continued throughout the second quarter. Monthly means of 35.7°, 47.8° and 58.2° compared favorably with long term averages of 35.8°, 47.5°, and 57.4°. There were 1196 hours of sunshine compared with 1159 during the same period of 1960. Precipitation was well below the 30-year average. Consequently streams are very low and the forests are tinder-dry. Already 1,250,000 acres of forest have been destroyed by fire. When the temperature rose to 56° on April 17 it was the hottest day since October, 1960. Sap ran in the Silver Maples and the first Compton Tortoise Shell Butterflies appeared. A low of 22° was a record for May 10. On the afternoon of May 11 the temperature rose from 59° to 75° in a few minutes.

With the high temperature of April 17, we were puzzled that there was no major wave of migration. The Yellow-bellied Sapsucker was the only new species reported. Later we learned that Duluth, Rainy River, and Kenora had experienced up to 19" of snow! The first great wave of migrants arrived on April 20. At Atikokan, Mrs. Peruniak reported 11 new species. On April 21 we heard the first chorus of Wood Frogs, Swamp Tree-frogs and Spring Peepers. Blue-winged and Green-winged Teal were identified in the Harbor. The average dates of arrival for these ducks are April 27 and April 30 for the Green-winged and the Blue-winged Teal respectively.

During the remainder of April and until the end of migration in early June, the various species drifted into the area with one major wave. A minor movement was noted on May 6 and 7. Mrs. Peruniak reported 9 new species at Atikokan on May 17 and six on May 23. On May 29, she reported six more new species suggesting a minor wave. On May 27 and 28, the Lakehead saw the only major

wave of the season. Not only did we see most of the warblers but there was a movement of shore-birds including Baird's and White-rumped Sandpipers and American Golden Plover. Migration finally came to a close with the arrival of the Scarlet Tanager on May 29 and the Eastern Wood Pewee on May 31 at Atikokan, and the Yellow-bellied Flycatcher, May 30, Common Nighthawk, May 29, and Alder Flycatcher on June 4 at the Lakehead.

During the long spring migration, a few uncommon birds were reported. On April 20, I watched a male Oregon Junco in a flock of Slate-colored Juncos in Fort William. It has been reported on a half-dozen previous occasions, locally. On April 22, R. and S. Robb and K. Denis saw two Sandhill Cranes at Chapple's Farm where we spent a field day with members of the Minneapolis Bird Club last September. D. Storey saw 14 in the area on May 2 and excellent photographs of the flock in flight were obtained by T. Perrons. D. Salo reported a Sandhill Crane at Dorion on April 27. Since first recorded in the Sibley Peninsula in 1891, there have been less than a dozen reports of the Sandhill Crane at the Canadian Lakehead although we suspect it may nest in the extreme northwestern portion of Ontario. On May 7, K. Denis reported a European Widgeon in the harbor. This is the fifth spring that this species has been reported in Thunder Bay. Mrs. Peruniak reported an Orange-crowned Warbler on May 8, and 4 on May 13 at French Lake, Rainy River District. Either this is a rare local migrant or we overlook it at the Lakehead. We have very few records of its occurrence and I have seen it but once in the past 24 years. On May 3 Mrs. Atkinson caught and released a Red-throated Loon at Dorion Fish Hatchery. It is an uncommon migrant and rare summer resident.

Concern has been expressed in recent years over the marked decrease in numbers of certain species, particularly the House Wren, Eastern Bluebird, and Hermit Thrush. At times, concern has been expressed over the great numbers of Robins killed by pesticides. Locally, the Eastern Phoebe became very uncommon after the severe storm of early May a few years ago. The Bank Swallow became uncommon at the same time and not a colony was found as late as 1960. The Hermit Thrush, formerly a common summer resident, is very uncommon this year. Only one was reported during migration and we did not hear one sing on its breeding grounds until July 6. The Eastern Bluebird continues to be uncommon. The House Wren appears to be recovering from the "crash" in its former numbers. The Robin is very common this year both in the country and in the cities. The Eastern Phoebe is again nesting in most of its old locations. The Bank Swallow returned to the Lakehead this season. Although not present in its former numbers, it has been found in three localities.

Loons and Grebes: A pair of Common Loons is present on most inland lakes. They were first seen on April 10. A very small loon was seen with the parent birds on June 25. Although we saw 15 Horned Grebes on Lake Superior at Grand Marais on April 23, they were not reported locally until May 7. On July 1, I found two nests of the Red-necked Grebe, each containing three eggs, at Whitefish Lake. One egg was still green in color and relatively unstained indicating it had only recently been laid. This egg was very small, approaching the smallest in the United States National Museum as recorded by Bent. A nest of a Pied-billed Grebe in the same marsh contained 7 eggs.

Pelicans to Bitterns: Double-crested Cormorants have been unusually scarce. Great Blue Herons are present in their usual numbers. A colony was located at Nym Lake, Rainy River District. Eleven occupied nests were seen in a second colony on Tilley Lake on the eastern border of Quetico Park. Constable Pearson reported a

third colony on Gull Island, Saganaga Lake in June.

Swans, Geese and Ducks: The migration of waterfowl was the best we have experienced in several years. A Whistling Swan was seen locally on May 4 and a few rested on Black Bay during the same period. Canada Geese were reported on April 12; the main movement occurred between April 17 and 20. The migration of Snow Geese and Blue Geese was quite late throughout Manitoba where a very heavy migration normally occurs. Snow Geese were seen at Fort William on April 29 and both Snows and Blues were loafing in the local Harbor on May 7. It is difficult to explain the presence locally of two Blue Geese on June 10. We believe the main flight of geese crosses Lake Superior to the east of the Lakehead. About 1000 "geese" fed at the mouth of the Wolf River in late April.

The peak of duck migration was reached on May 7 when thousands were present in the Harbour feeding on the waste grain from the elevators. Green-winged Teal were relatively abundant; one was still present on June 10. On May 4 we saw 3 Canvasbacks and a drake Wood Duck. The European Widgeon was present from May 7 to 9. We saw two Redheads on May 9. This species has been very scarce here for two years. A Shoveler was seen on April 22; for several years several pairs of Shovelers have been reported. At least one, and possibly two, pairs of American Widgeon were present in Fort William harbor on July 12. This suggested they might be breeding although no nests or young of this species have ever been reported locally. Large numbers of drake ducks have loafed this summer in the harbor. These included Black Ducks, Mallards, Pintails and Blue-winged Teal and Common Goldeneyes have been unusually common. A few Ring-necked Ducks are also present. Yet few broods of young have been seen. On June 11, I watched a female Hooded Merganser in O'Connor Township with her brood of seven small young. An American Merganser on July 9, at Cloud Bay was accompanied by 14 very small ducklings.

At Atikokan, an Aspen Poplar was felled in which there was a cavity excavated years ago by a Pileated Woodpecker. Mrs. Peruniak sent me the contents. These included added eggs of Common Goldeneyes and the fresh egg of a Hooded Merganser.

Vultures to Falcons: The migration of this group was an average one. Mrs. Peruniak saw a Turkey Vulture at Atikokan on April 28. These birds are rarely seen at the Lakehead but occur in increasing numbers as one moves westward into Kenora and Rainy River Districts. An immature Bald Eagle flew along Highway 61 north of Grand Marais on April 3. An adult was reported at Rosspoint on April 7, at Fort William on April 8, and two at Sapawe on April 3. This may have been the pair which is nesting at Niobe Lake. One young was seen in the nest on June 6. Mrs. Peruniak reported an immature Bald Eagle on April 27 and one on June 8. The Sibley Provincial Park nest (*Naturalist*, 10:(4):26, 1959) was not occupied in 1960 or in 1961, although a pair of Bald Eagles was reported in the region both years.

Grouse to Coots: Relatively few Ruffed Grouse have been seen. P. Nunan, Conservation Officer, reports broods of newly hatched young at the end of June suggesting a loss of first broods. Mrs. Peruniak saw young Spruce Grouse at Nym Lake in June. On July 4 a Gray Partridge was found in Fort William with a brood of 14 newly-hatched young. The presence of the 14 Sandhill Cranes in Slate River in late April was a highlight of the season.

Waders: The migration of the waders was not spectacular in so far as numbers were concerned but all regular species were recorded with the exception of Ruddy Turnstones. The Common Snipe was scarce. Two American Woodcocks were seen in June not far from Murillo where they were first identified locally in 1936. Two Black-bellied Plovers were seen on May 21 and two on May 28 associating with an American Golden Plover; eleven were still present as late as June 11. At least five Upland Plovers were present on May 21. Both

Yellowlegs were present in smaller numbers than in 1960. A Lesser Yellowleg's was still present on June 10. "Peeps" were relatively scarce. Single Marbled Godwits were seen on May 16 and 20 and Hudsonian Godwits on May 17 and 19. Unfortunately I could not identify the two Dowitchers I saw on May 24. A Wilson's Phalarope was seen on May 21 at Chapple's Farm.

Gulls and Terns: Ring-billed Gulls appeared on April 13 and for a short period were present in greater numbers than Herring Gulls. A few Bonaparte's Gulls were seen on Whitefish Lake on May 29. Black Terns are uncommon visitors in this region and have never been found breeding here. On July 1, I located a colony of twelve at Whitefish Lake. They "dive-bombed" me repeatedly but I could not force my boat through dense cattails into the pond of *Equisetum* where I suspected nests might be found.

Doves to Woodpeckers: A few Mourning Doves are present in the Rosslyn area where two nests have been found in recent years. Black-billed Cuckoos are scarce for the second successive year. We heard our first, on July 8. Two Whip-poor-wills were heard on June 13 in the area where we usually find them.

Flycatchers, Larks and Swallows: On July 1, K. Denis observed a nest with young of the Olive-sided Flycatcher in Sibley Park. It was placed on a horizontal limb of a Black Spruce, 20 feet from the ground. A Northern Horned Lark was seen on May 19. Purple Martins were reported on two occasions. Cliff Swallows are again present in widely scattered areas. As noted above, Bank Swallows are returning to some of their old nesting territories. On May 21, Dorothy Allin observed a pair of Rough-winged Swallows in Lybster Township. An inaccessible hole in a gravel pit was probably their nesting site. There is but one previous breeding record for this species for the District.

Jays to Wrens: Mrs. Peruniak found a Common Raven's nest with four young on April 18 on a cliff near Atikokan. The Short-billed Marsh Wren is considered an uncommon

summer resident, and one of our latest migrants. This year four colonies were located; one of these was found on May 22 and the second on May 27. In 1959, at least two Long-billed Marsh Wrens spent the summer in Sibley Park—a new species for the District. On July 8, K. Denis saw one at Whitefish Lake.

Mockingbirds to Bluebirds: There was a generally poor migration of this group. No Catbirds have been seen locally although Mrs. Peruniak saw two at Atikokan on May 23. Brown Thrashers were seen at the Lakehead on May 11 and June 11. Robins are very common but we did not see the usual late wave of Robins which usually moves through the area in early May. Veerys are very common and Swainson's Thrush is probably present in its usual numbers after a very late arrival. Hermit Thrushes are very scarce, truly a crash species. Only a few Eastern Bluebirds have been seen.

Kinglets to Starlings: The Starling continues to increase. Many remained throughout the winter and flocks returned from the south. Innumerable new broods appeared in early June.

Vireos and Warblers: The migration of these birds was a poor one. The only major movement was that of May 27, 28. Mrs. Peruniak saw a Black-throated Blue at Atikokan. She also saw an Orange-crowned Warbler there on May 4, and four on May 13 at French Lake. On June 8, Mrs. Peruniak saw a mated pair of Philadelphia Vireos; one of the birds was carrying nesting material.

Bobolinks to Tanagers: A decade ago we were fortunate to find a colony of Bobolinks. This year it has been found in four areas. An Eastern Meadowlark was heard in Paipoonge Township on May 12. This is the fourth local record. A Yellow-headed Blackbird seen at Schreiber in late May was far from its normal range. A Baltimore Oriole in O'Connor

Township on June 11 was my fifth record after 24 years of local bird study. Rusty Blackbirds were recorded on only one occasion. Brewer's Blackbird continues to extend its range. The most recent colony is within the city limits of Fort William. No Scarlet Tanagers were seen at the Lakehead this spring but Mrs. G. Blake saw one in Cook County, and Mrs. Peruniak saw one at Atikokan on May 29.

Cardinals to Snow Buntings: The spring migration of sparrows was moderately good. All our regular species have been seen except LeConte's Sparrow. Harris' Sparrow appeared on May 11; one was present on May 25. White-crowned Sparrows appeared in moderate numbers on May 11; none belonging to the race *gambelii* was recognized. Although the Fox Sparrow is expected about April 18, it was first seen in 1961 on May 4. Very few were reported. Slate-colored Juncos were common on April 20. Pine Siskins, so abundant in April, remained in small numbers; no breeding record was established. An Indigo Bunting was seen on May 16 and another on June 11. A flock of Lapland Longspurs seen on April 20, contained an estimated 500 individuals. On the same date, two Snow Buntings looked out of place, perched on telephone wires.

On June 28, O. Merits told me a gar-pike had been caught by a commercial fisherman, George Damphier, in Nipigon Bay and that photographs had been taken. Subsequently we learned the specimen had been turned over to the Ontario Department of Lands and Forests. On examination we identified it as a Longnose Gar (*Lepisosteus osseus*). The fish, which measured 26 inches in length, is the first of this more southern species to have been taken from the Lake Superior drainage.—*Regional Laboratory, Ontario Department of Health, Fort William, Ontario.*

SWAN LAKE: AN EXCELLENT NESTING AREA

by

Ronald L. Huber

Swan Lake, located one mile west of Nicollet, Nicollet County, Minnesota, on U.S. Highway 14, is familiar to most of us during migration. The lake itself is hard to see this year (1961) because of the tall surrounding vegetation. This surrounding greenery provided good cover for many species of birds, so Harding Huber and I decided to study the nesting situation there on June 24, 1961. The tall vegetation not only provided good cover for rails, sparrows and marsh wrens, but also, it provided cover, at least from humans and other terrestrial predators, for waterbirds like ducks, terns, grebes, etc. We hoped therefore to find and band many nestlings of various species. Unfortunately, we were greeted by nests which still contained eggs or else adults feeding almost fully grown young.

We did manage to band two nestling Mourning Doves on the south shore and nearby we found six young House Wrens which were just a bit young for banding. Two female and five male Least Bitterns were flying to and fro along the south shore, but we were unable to locate their nests. Long-billed Marsh Wrens flitted nervously about in the cattail grass but all we found were several dummy nests. A Virginia Rail cackled behind us and we could see the grasses moving as the bird ran through them. We soon found the nest, which contained five eggs. Shortly thereafter, we saw the adult nearby. Although the water was shallow, there was a good deal of mud on the bottom and hence we could only wade just so far out in hip boots. We decided that our luck would improve if we went out in a boat.

A thin, sinuous, weed-choked channel all but defeated our efforts to make it into open water. Finally we left the shallows. Two Forster's Terns buzzed us and set up a loud clamor. We found a nest nearby, containing four eggs, but obviously belonging to

an American Coot. We headed out toward the middle of the lake. As we looked back, one of the terns alighted on a nest, very near to where the American Coot's nest was. During the course of the day, we found three American Coot nests with five eggs each, three with six eggs each, two with eight eggs apiece and one with eleven eggs (60 eggs, nine nests, a mean of approximately seven eggs per clutch) and many chicks were seen with adults. Only occasionally were isolated American Coot chicks seen. Hence it would seem that, although precocial, the younger chicks apparently derive a sense of security from following the adults around. The chicks are not entirely helpless, however, and when we pursued a lone, fuzzy chick, we found that, although flightless, it could dive expertly!

Finally we found a Forster's Tern "nest" after enduring many screams and "dive-bombings" from the adults. Three eggs were lying exposed on top of an old muskrat house. All told, we found two "nests" with three eggs each and three "nests" with two eggs for a mean of 2.4 eggs per clutch. The "nests" were all atop muskrat houses, some of which still contained the muskrat and in one case, a juvenile yellowish-brown Muskrat. We noticed that the ground color of the Forster Tern eggs was extremely variable from dirty white to olive brown, the latter resembling Black Tern eggs. We did see many Black Terns in the area, but did not find their nests.

A Pied-billed Grebe with nine chicks passed us and nearby was another with five young. Young were seen at practically all stages of development, some as fuzzy chicks, some as half grown young, and some as almost fully grown birds.

We found a Yellow-headed Blackbird nest with three eggs, a possible second brood, since flying, almost fully grown young were seen everywhere

else on the lake. Many young but expertly flying Black-crowned Night Herons were seen over the lake, also. Here and there Franklin's Gulls zig-zagged over the reeds and bulrushes. Much to our surprise, nine White Pelicans arose from the west end of the lake and circled overhead until lost from view; apparently a non-breeding group.

Our attention was then diverted by nine Eared Grebes, then several more, until at least 40 were seen at once. We moved closer to the concentration of birds and found their floating nests. The nests were anchored to taller plants (mostly bulrushes which jutted six to 12 inches above the water), and were, themselves, composed of dried, brown grasses. One contained two eggs, two contained three eggs and seven contained four eggs, a total of 36 eggs, 10 nests and a mean clutch size of 3.6 eggs per nest. All told there were more than 60 nests in a huge, colonial cluster that was about forty yards in diameter. Some of the nests were within mere inches of each other, although generally they were separated by 10 or 15 feet. Most appeared to contain three or four eggs as we drifted by in the boat. Two nests containing much larger eggs were found nearby and were soon identified by the presence of five Western Grebes nearby. Still two more nests were found, and these contained eggs which were larger than the Eared Grebe's but smaller than the Western Grebe's. They were not precisely intermediate in size, however, since they were more closely approximate in size to those of the Western Grebe. We had noticed several Red-necked Grebes swimming near the Western Grebes, and these were apparently their nests. We collected, for the Museum of Natural History, one Western Grebe egg, two Eared Grebe eggs, and one Red-necked Grebe egg. The latter cracked and shattered while being blown and was hence discarded.

It is interesting to note that in one day, on one lake, we found all of Minnesota's nesting grebes except the Horned Grebe.

The four nests of the two larger species were just a short distance

from the periphery of the Eared Grebe nest-colony. Apparently the grebes here are so gregarious that several species can live in close liaison. Lack of Pied-billed Grebe nests in this closely-knit colony might be explained by the huge numbers of their chicks in the area. Our observations here indicate that a grebe-nest is a temporary thing, lasting only for a short while until it decays and drifts apart, water-logged. Hence after the emergence of the Pied-billed Grebe chicks (which at that time was the only species of chick we saw), the nests would have been decayed enough to have disintegrated, leaving only the newer, egg-containing nests of the three later-nesting species.

On July 8, 1961, Harding and I returned to Swan Lake, accompanied this time by Ray Glassel, Bob Jansen, Brother Theodore and a camera. In the channel, before we even entered the lake, we saw a Common Gallinule with four chicks. The White Pelicans were not seen that day, nor did we find the two nests of Western Grebes. We did find three more Red-necked Grebe nests, containing two, three and four eggs.

We had considerable difficulty in locating the grebe colony on this second visit because

- a) the vegetation in and around the area had grown much taller, making it difficult to see,
- b) distribution of vegetation, various types of which grow at different rates, distorted the appearance of the general area, and
- c) when we finally found the colony of nests, it was no longer a compact, closely-knit arrangement, but rather the huge core had been broken down into many isolated nodules of two to five nests each. Hence our difficulty in re-locating these nests. We may have entirely overlooked the Western Grebe nests because of the deceptive conditions brought about by the three above-named factors. The general dissociation of the original compact colony may have been in part, if not wholly, due to the decay and subsequent disintegration of the first-made nests. Those that remained,

only a fraction of the original 60 or more, were very soggy and ready to fall apart. The few remaining eggs in most of the nests were just about ready to hatch. In one instance, one of the eggs was pipping, so Ray Gassel peeled away the shell to help the little grebe emerge. The chick was not so naked as we had expected, but had a fair amount of fuzzy, albeit wet and sticky, down. I took out a band and although the little tarsus was thick enough, it wasn't yet long enough to accept the band. Bob Janssen took pictures of some of the nests and also of this newly-hatched chick.

All told, we examined 12 nests of the Eared Grebe, containing from one to three eggs each, with a mean of 1.6 eggs per clutch. A marked reduction from the previous average of 3.6 per clutch. This was probably due to hatching of the first-laid eggs, and these remaining were obviously in the

hatching process, too. Only one or two adults were seen at this point, apparently having all become shy after the hatching of most of their respective clutches. No chicks were seen of the Eared Grebe, and these were probably still hiding on their parents' backs.

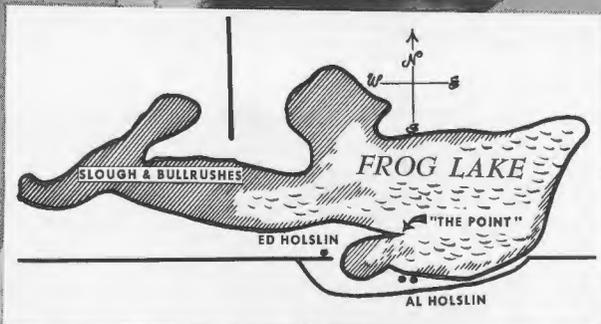
We managed to capture and band an American Coot chick, and we saw, walking on lily-pads, a shore-bird that none of us recognized. The bill revealed its identity as a phalarope. Our description, copied carefully for reference, showed that it was a young Wilson's Phalarope wearing a plumage that Bent describes as lasting only about a month or so.

From these two visits to Swan Lake, we found 12 nesting species on and around the lake and five others probably nesting there for a breeding potential of 17 species.—*3121 Georgia Ave. So., Minneapolis 26, Minnesota.*

* * *

8th ANNUAL M.O.U. WINTER MEETING

"The annual meeting and papers session of the M.O.U. will be held on December 2, 1961, at the Museum of Natural History. Everyone wishing to present a paper should notify Wm. H. Longley, Forest Lake, Minnesota, and include the title of the paper, length of time required, type of illustration, and other pertinent information."





Frog Lake



by Ken Haag

Between June 25 and July 23, 1961, in the heart of drouth-stricken Stevens County, Minnesota, a formidable puddle called Frog Lake held sway while Mother Nature threw a raging retort against the drying surroundings with an array of waterfowl.

Atop of the miniature fjords that hug the shoreline of the Alfred Holslin farm on Frog Lake, four disciples of ornithology peered toward "the point" through the "questar" telescope belonging to Ernest H. Strubbe of Alberta. What was seen by Al Holslin, Ernie Strubbe, Art Skoglund and I during weekend intervals and specifically July 23rd could well be cited a feathered fantasy probably unequaled at one time on any one lake in Minnesota.

Fifteen species of ducks were counted by Ernest Strubbe and Al Holslin on a Sunday morning in early June. This group included Mallard, Pintail, American Widgeon, Shovelers, Gadwall, Blue-winged Teal, Green-winged Teal, Lesser Scaup, Ring-necked Duck, Ruddy Duck, Common Goldeneye, Black Duck, Canvasback, Redhead, and Bufflehead. Also lending their vogue of color to the quacking array of ducks were Horned Grebes, Eared Grebes, and Pied-billed Grebes, and if this weren't enough for a complete waterfowl wardrobe of spring—the Double-crested Cormorants, Black-crowned Night Herons, Great Blue Herons, American Bitterns, and finally, White Pelicans passed in review across "the point."

"The point" in effect should here be defined as to the tremendous "stage" or backdrop it is for the waterfowl to perform thereon. At the very tip, the sand bar harbors twisted and gnarled willow stumps. They remain as ashen, bleached, monuments of Nature until a sleek cormorant finds a perch on one of them. Then

the picture in whole, becomes a living symbol dedicated to any outdoor, or wildlife lover who happens his gaze toward "the point." Forty feet from the very tip, a green fringe of weeds, wildflowers, bull thistle and grass take you back to a barbed wire fence and the jutting branches of Cottonwood trees. Cavorting about the trees you can sight a brilliant Baltimore Oriole, Sparrow Hawks, Killdeer, Western Meadowlarks, woodpeckers of all kinds, Eastern Kingbirds and the lordly Yellow-headed Blackbird.

In Frog Lake the pelicans by the hundreds scoop up their alacarte menu of bullheads and if by chance they leave their dessert, a Great Blue Heron will chomp it (the bullhead) down fast. But while the fishy foray of cormorants and pelicans remain as prize boarders all summer on Frog Lake they were naught but extras when the parts and lead roles were exalted for the July 23rd "Main feature."

On July 22, David Holslin and Ernest Strubbe were nestled in the latters' blind, a sturdy canvas hut decorated with paint by Mr. Strubbe in browns, greens and yellows.

The blind on "the point," but in the green foliage enough to be inconspicuous to bird or man, gave vantage to three openings in the canvas, north, east and south. Strubbe, armed with tripod, camera, and film started "shooting." Six Western Grebes came slinking around the north side putting a velvet ripple in the blue-green water. With red eyes, yellow pointed bill, jet black topknot, and pure white neck they paraded by with flair. When Ernie finally regained calmness, he skimmed the north shore with his telescope and beheld a startling patch of color. It was Ruddy Ducks in their full dress of summer. Radiant chestnut red coats, glimmering in the sun-

light, inky black domes, white puffy cheeks, and the very vivid blue-turquoise bill. Several hundred of those bouyant, bobs of color, some sleeping, some diving but most just lazily going with the waves of water in every direction.

Almost two inches of rain had fallen around the Alberta area within a week prior to the weekend of July 23, so the corn was looking good, flax was still coming strong, and in spite of the drouth, nature in general seemed to respond with a rejuvenated tweet from a big old Blue Jay grabbing onto a branch over the penned in

sheep. Strubbe had brought his telescope and set it up right outside Al Holslins back door overlooking Frog Lake and "the point." It was forenoon and the sun was playing a sonata on the water. I took the initial glimpse into the 80 power lens, and there in ful glory were four drake Wood Ducks preening. And in the foreground a scattered few Ruddy Ducks sleeping and diving in their usual manner. It was an unusual sight! The Wood Ducks, in eclipse, still had fire in their eyes, and in their bills. The dark green iridescent color was somewhat faded from their heads but the sun caught the blue-green patch in the wing, and it shown brilliantly.

A half hour passed before Al Holslin took a peek through the lens — he counted five drake Wood Ducks. Upon summoning Strubbe, who had gone to the neighboring farm, I took another look and counted 12 Wood Ducks, 10 drakes and two hens. When Strubbe took his final look—he counted 13, with 11 drakes and two hens.

The sight was one to behold! Two drake Wood Ducks were perched on the willow stumps. The rest were squatted and spread along the rocks



and sand of the point. Then contrasting this were a couple dozen Ruddys, harboring among the sparse bullrushes and floating directly in front of the Wood

Ducks. To the extreme "point" there was a Canvasback somewhat drab, standing by a pair of Pintails and behind them a Ring-necked Duck surveying the whole scene.

Mallards, teal, American Widgeons, and Gadwalls were also on the guest list but their eclipse all but put them in unjust drabness compared to the Ruddy Ducks and Wood Ducks.

This was for A. G. Skoglund, E. Strubbe, Al Holslin, and myself an experience not soon forgotten. It was for the record, a compatible justification that offers at least a wide-eyed awakening. With the drought conditions, the bone-dry sloughs, and the other hazards that prevail, wild fowl

and the winged world in general have loomed more important than ever in our conservation theme.

The beauty of wildfowl is more than just a trophy for the hunter. It represents a big part of an overall pattern in nature—survival, status, and reproduction. Looking at waterfowl through an 80 power lens is more like looking at a kaleidoscope. But all species are needed for a complete design.—679 Jessamine Avenue, St. Paul, Minnesota.

Photo Credits—White Pelicans and Wood Ducks by A. G. Skoglund, St. Paul, Minnesota. All other photos by E. H. Strubbe, Alberta, Minnesota.

* * *



NOTES OF INTEREST

OBSERVATION OF AN ATTACK ON A SNOW GOOSE BY A BALD EAGLE—While investigating utilization of Common Goldeneye nest boxes on Lake Manomin in southwestern Beltrami County, Minnesota, the writer and Mr. Edwin B. Lindell of Solway, Minnesota observed an attack on a Snow Goose (*Chen hyerborea*) by a Bald Eagle (*Haliaeetus leucocephalus*). This attack occurred at about 4:00 p.m. on May 12, 1961 on a clear, sunlit day. The goose was alone, possibly remaining behind for some reason or another from a flock reported on the lake about five days previously. The goose was observed to leave the surface of the water and fly in a normal fashion when a mature Bald Eagle was seen pursuing it. The eagle caught up to the goose and attacked with both feet followed by a downward slash with the beak. Whether the eagle's talons were extended or clubbed could not be seen although we observed the attack through binoculars. The goose immediately fell to the water. The eagle then circled and descended to attack the goose on the water whereupon the goose dived below the surface for a few seconds. Following this failure the eagle circled a number of times and gradually drifted off downwind. With the eagle out of sight the goose quickly recovered and calmly went about the task of preening its feathers.—*Merle W. Johnson, Department of Conservation, St. Paul, Minnesota.*

PINE SISKINS COMMON AND BREEDING IN THE DULUTH AREA—(From the North comes a report of a Pine Siskin invasion, embarrassingly overdue as was brought out by the note-of-interest pertaining to the same species in the last issue of the *Flicker*.)

Until approximately eight years ago, Pine Siskins were seen in Duluth in the winter and early spring, only occasionally, and almost exclusively. They were a "winter bird," along with the Common Redpolls and Evening Grosbeaks. Then, within a few years' time, they became a common summer resident of this area. Amazingly, siskins could be found in almost all residential sections of town during the breeding season, not in waves of large groups, but continually and usually in groups of two or three.

No attempts have been made to locate nests of the species, although from their abundance it would seem that every spruce grove in the city might harbor a pair. Nevertheless, three separate instances of nesting activity have been observed by this author. In view of the above-mentioned article, the first nest may well have been the first siskin nest found in the state. It occurred, if recollection is correct, in 1954, and was located in a tamarack at a height of approximately 18 ft. The other two, one 1 year afterward and the other this year, were located in white spruce at approximate heights of 35 ft. and 6 ft., respectively.

One can only guess whether this striking extension of breeding range will persist; it can be said with certainty, however, that the Pine Siskin is presently one of the most common summer residents in the Duluth area.—*Robert Cohen, 719 E. Sixth Street, Duluth, Minnesota.*

THE MOUNTAIN LION IN MINNESOTA—Four members of the Archery Club of Mankato State College (Jim Cairns, Paul Temple, Bob Claffin and I) sighted a Mountain Lion while driving south from International Falls on State Highway 63 near the Nett Lake Indian Reservation. The club members were returning from a hunting trip late at night in April, 1960.

The animal was first sighted lying beside the highway and was believed to be a deer because of its size. The boys immediately stopped the car and threw the light of a six-celled flashlight on it from a distance of only twenty feet. This caused the animal to jump to its feet, but it continued to stare into the light for at least a minute. The lion then very slowly walked into the

forest, stopping several times to look back. Particularly noticeable was the long black-tipped tail that was continually twitching. Because of its' long tail, unspotted coat and large size, it could not have been confused with another member of the cat family—the lynx.

The club members camped near Togo, Minnesota that night and were surprised to learn from the local Fire Warden, Elmer Olson, that a few weeks previously a pair of lions were reported seen crossing a road at night.

The most recent reports by Gunderson and Beer at the University of Minnesota, relate the last mountain lion was killed about 1897 in Becker County.

Plaster casts were taken in Lyon County during the winter of 1951 and were identified by Stanley B. Young of the National Museum, an outstanding authority on mountain lions, as tracks of this species.

It is hoped by the members of the Mankato State Archery Club, that protection will be provided for these magnificent animals.—*Oscar W. Larson, 414 Cherry Street, Mankato, Minnesota.*

KENTUCKY WARBLER SPECIMEN FOR MINNESOTA—On May 23rd while sitting in my mother's stamp and coin shop one of her young customers brought to me two dead warblers, apparently road kills, which he found the preceding day at the N.E. Athletic Field, Fillmore St. and 16th Ave. N.E., Minneapolis.

Upon first examination one was identified as a Magnolia Warbler, but I knew the other was something out of the ordinary. At first glance it resembled a Wilson's Warbler but the black on the crown faded into the olive-green nape, and there was a black stripe from the bill to the much receded eye. I assumed the bird was a female Kentucky Warbler and after checking with *Audubon Guides* I was convinced of it.

Next, I took it to the Museum of Natural History and showed it to Dr. Breckenridge. We compared it with specimens which convinced both of us. After preparation by John Jarosz it was confirmed as a Kentucky Warbler, female by plumage, and the first specimen for Minnesota.—*Harding Huber, 1231 5th St. N.E., Minneapolis, Minnesota.*

BLUEBIRD TRAIL DULUTH—A survey was made of the 71 occupied houses set out by the Duluth Bird Club with the following results this season.

Tree Swallows	62
Eastern Bluebirds	5
House Wrens	4
Total	71

The percentage of Eastern Bluebird occupation during the past three years is as follows:

1959	25%
1960	10%
1961	7%

The above will substantiate the reports of Audubon Society regarding the scarcity of Eastern Bluebirds in the country and vigorous attempts should be made by Club members to provide adequate housing in the future to attempt to build up the population of this species.—*J. K. Bronoel, Duluth Bird Club, Duluth, Minn.*

HYBRID YELLOW-SHAFTED — RED SHAFTED FLICKER—My wife and I, as well as several neighbors observed what we believe to be a hybrid flicker several times on April 24 and 25, 1960. This specimen was observed in the company of a normal male and female Yellow-shafted Flicker at a distance of 50 ft. with 8 x 30 binoculars, so the observation of distinctive

markings was unmistakable. The location was 22 Duck Pass Road on the north edge of Lake Gilfillan in North Oaks, Ramsey County.

The distinguishing characteristics were as follows: Red "moustache" on both sides of the head (Red-shafted). Red patch on the nape of the neck, (Yellow-shafted). Head and cheek very pale (almost pale tan). (Red-shafted). Back coloring same as the Yellow-shafted Flicker.

This bird was observed several times later that week, but was not seen again. *Gordon Gorecki, 22 Duck Pass Road, North Oaks, St. Paul 10, Minnesota.*

ANOTHER HYBRID RED-SHAFTED—YELLOW-SHAFTED FLICKER—I was just leaving my home early Sunday morning, June 4, 1961, to meet my Extension Ornithology class for a field trip when what appeared to be a normal male Yellow-shafted Flicker (*Colaptes auratus*) killed by traffic attracted my attention. Since it appeared to be in good condition as a museum specimen, I picked it up. On opening the wings to inspect its condition, I was surprised to find the fifth and sixth primary feathers on both wings had the vane distinctly reddish in contrast to the yellow of the normal Yellow-shafted Flicker and the shaft was red-orange in place of bright yellow. A careful examination showed no other evidences of hybridism with the western Red-shafted species (*Colaptes cafer*). This hybrid specimen made an interesting demonstration for the students and led into an extended discussion of hybridism. This is just another example of the greatly varied extent to which hybridization between these species affects the plumage coloration. It suggests the complicated character of the genetic factors at work controlling the pigmentation of the plumage of these species. This specimen is now No. 17322 in the Minnesota Museum of Natural History collections. — *W. J. Breckenridge, Museum of Natural History, University of Minnesota, Minneapolis 14, Minnesota.*

PRAIRIE WARBLER IN MINNEAPOLIS—On May 12, 1961, Mrs. S. D. Andrews, Jr., Mrs. C. M. Case, Jr., and I went out to the Bass Pond, Hennepin County, about 11 o'clock in the morning. At the foot of the hill on the right, before turning around to the left for the parking area, there is a brushy area running toward the far lake. In that brushy area, between the foot of the hill and the little stream, there was a Yellowthroat hopping on the ground with another warbler. Because of the late spring and lack of foliage, we had a clear view of the bird. The yellow head with the black line through the eye and the broken or bent black line below the eye, as well as the vivid black stripes on the sides of the breast and belly, marked it almost immediately as the Prairie Warbler. The bird moved back into the brush toward the hill and out of sight, but several times we heard the song, which was somewhat similar to that of the Parula, but less insect-like at the end.

We then decided to eat our picnic near the place where we had originally seen the warbler. In less than five minutes it was hopping on a small bush not over six feet away about two to five feet from the ground, pausing to wag its tail now and then. It was so close that we could plainly see the chestnut stripes on the back. It remained in the area for about an hour while we were there, but could not be found again when we returned at 2:30 in the afternoon.

The weather was sunny with a slight south wind and the temperature in the high seventies. The two previous days had been hot with very strong south winds. Also during the past week there had been severe tornadoes to the south in Iowa and Missouri, which might have some bearing on the fact that this is the first time the Prairie Warbler has been reported in Minnesota.—*Mrs. J. E. McCarthy, Route 5, Excelsior, Minnesota.*

AN ALBINO HORNED LARK—On April 1, 1961, on one of their many bird trips around Duluth, Richard Green and Robert Ulvang saw a partial albino Horned Lark, on the airport just past the recreation center on Min-

nesota Point (Park Point). Between the dates of April 1 to April 13 several other members of the Duluth Bird Club saw the bird. On April 13, the lark was collected and will be placed in the collection at the University of Minnesota, Duluth, subsequent to preparation.

The measurements of this bird are these in millimeters: total length, 179; extent, 322; wing, 101; tail, 64; tarsus, 21 and bill, 11. This specimen was an adult female with an ovary measuring 7 x 5 and it weighed 32.9 grams.

The entire specimen has the usual markings of the species, but these are extremely pale. The darkest part is the tail of which the four central feathers are a dingy white and the rest a dark brown.—Gary C. Kuyava, 1611 No. 7th Ave. East, Duluth 5, Minnesota.

BREEDING RANGE EXTENSION OF EARED AND WESTERN GREBES—The *AOU Checklist* (1957) gives the easternmost United States breeding record of the Western Grebe as Heron Lake, Jackson County, Minnesota. That record also appears in T. S. Roberts' *Birds of Minnesota* (1932) with the date given as 1899 (some 62 years ago!). Until now, that was the most recent nesting record for the state (and only the third nesting record).

Within the last twenty years, the only published breeding season records are for Lake Traverse (various issues of the *Flicker*) and two for Duluth (*Flicker*, June 1950, March, 1953). The latter two are of individual birds, ten years apart, and probably represent non-breeding birds.

We were therefore delighted to find two Western Grebe nests containing four eggs and one egg, respectively, on June 24, 1961 at Swan Lake, Nicollet County, Minnesota. This location is about 60 miles northeast of Heron Lake, the previous easternmost site. With respect to recent breeding season records, Swan Lake is 145 miles southeast of Lake Traverse.

The floating grebe nests were composed of loosely woven bulrush stems, most of which were already brown. The eggs were covered with wet, matted bits of vegetation, the exact purpose of which is unknown. Roberts (*ibid.*, p. 146) says, ". . . probably the heat of the sun on the rotting materials under which the eggs are buried may assist somewhat in incubating them." While this is theoretically true, I suspect that the number of millicalories produced by these few grams or ounces of oxidizing organic matter is so small as to have virtually no effect on the incubation. The likeliest possibility, since the nest is plainly exposed on open water, is that the eggs are concealed from view of any predators flying over the nest. We suspected this because the eggs were covered above but were almost always exposed on the sides . . . exposed to the extent that we could always see the eggs from our horizontal approach in the boat. In some instances, we could actually count the eggs while passing leisurely by, even though the tops had been covered.

The Western Grebe nests were approached directly and the eggs examined. The nest containing the four eggs was a fairly stable looking nest and the eggs were barely warm. Our lateral approach showed the eggs to be ill-concealed, but from above they were well-concealed. When held to the ear, movement could be heard within the egg. Pipping was probably soon to begin. The coloration of the eggs was variable due to exposure to water and sunlight. The surfaces exposed to light and air were a very whitish-brown, mottled with deeper-hued brown. The surfaces subject to water along the bottom of the nest were turned upwards and found to be a very light pastel blue, also mottled, with a barely noticeable brown. The same was true of the single egg. No movement was heard within this egg and it was cold to the touch. The nest as water-sodden in its entirety and the egg was poorly concealed from above or from the sides. Because of these factors, we decided to collect the egg for the Museum of Natural History, particularly since this was the first breeding record in the past 62 years! T. S. Roberts (*ibid.*) reports only one clutch taken . . . ours would appear to be the second egg-record. The egg measured 55.0 x

36.0 millimeters (2.20 x 1.44 inches). When blown and dried, the egg was a dull, pale whitish-blue with some pale brown mottling and splotching.

Five adult Western Grebes were seen in the vicinity most of the time.

Two Red-necked Grebes and more than forty Eared Grebes were seen nearby also. Nests of these two species were also found and the eggs compared with the Western Grebes. The Eared Grebe eggs were considerably smaller, and two taken measured 46.5 x 31.0 mm. (1.82 x 1.24 inches) and 41.8 x 30.7 mm. (1.67 x 1.23 inches). They were similarly but less intensely marked than the Western Grebe eggs and had a generally tannish coloration. The Red-necked eggs were only slightly smaller than the Western's but similar to them in all other respects.

T. S. Roberts (*ibid.*, p. 152) says of the Eared Grebe, ". . . breeding as far east as . . . Swan Lake, Nicollet County . . ." and then, later on the same page, he says in contradiction of himself, "There is no record of its occurrence as a breeding bird in the eastern part of the state." This is clarified on the following page, however, when he says, ". . . Mr. Oberholser, while making a survey of Swan Lake . . . July 25-27, 1917, found the Eared Grebe present in that locality." Roberts was apparently assuming that this species bred there, but ours appears to be the first definite breeding record for that area. In the *AOU Checklist* for 1957, the previous easternmost records were Becker County, Minnesota and Clay County, Iowa. Swan Lake is east of both those areas.
—Ronald L. Huber, 3121 Georgia Ave. So., Minneapolis 26, Minnesota.

BOOK REVIEWS

Ducks, Geese, and Swans by Herbert H. Wong, illustrated by William D. Berry (1960) 65 pp., cloth bound. Published by Lane Book Company, Meno Park, California; Sunset Junior Series. Price \$2.95.

In recent years there has been a deluge of excellent books on natural history written especially for children. The quality and lavishness of these many ventures have caused many envious adults to declare that, "they wish they were kids again." In fact one of the real joys young parents acquire is the justification they inherit to read this expanding enticing literature to their children. *Ducks, Geese and Swans* by Herbert H. Wong is another entre in the young readers division which will delight children and parents alike while providing knowledge about one of our most interesting families of birds.

This small book presents in a well written and concise manner, an engaging and authoritative account of the waterfowl of North America. The format is attractively designed, consisting of 7 1/2 x 9 inch pages with large, easy to read type and numerous illustrations. Although the author has primarily emphasized western species, this refreshing approach in no way limits the book for persons living elsewhere.

We begin by learning which birds constitute the waterfowl and why this group has always been of great importance to man. We soon learn to differentiate swans, geese and ducks, and further the distinctions between bay ducks, fresh water ducks, divers and dabblers are quickly covered. With this, the author briefly discusses the foods and feeding habits of waterfowl and then discusses individually most of the species which occur in the United States. How did the Whistling Swan get its name? Where is the Trumpeter found? Do you know the name of the smallest goose in North America and where it nests? We all have heard of the phrase "sauce for the goose is sauce for the gander" but do all know the difference between the two names? These, and many bas-

ic biological facts concerning the migratory habits, life histories, and distribution of the waterfowl are considered in sixty-five interesting pages. Many of the waterbirds one often sees with waterfowl are also discussed in the section "waterbird companions".

All is not mere bird-watching-by-book however. A full page colorful map illustrates the main migration routes of our North American waterfowl and the winter and summer homes show where ducks and their relatives spend the year. We learn how interested individuals and agencies study waterfowl by banding birds and tracing their movements. Not everything is rosy in the ducks' life, however, for in many places the waters are destroyed by pollution and diseases; even complete destruction of the habitat may occur. A great many people spend their lives studying the needs of waterfowl and working to build new "homes" for these fascinating birds. Thanks to their effort, we are learning how important good nesting and resting habitat is to waterfowl, and a system of refuges has been established throughout western North America. In the closing pages of the text the young reader is challenged to think how he could contribute to understanding and aiding the waterfowl and thereby contribute to a more beautiful and satisfying world.

In any book designed for small children the illustrations assume relatively greater importance, and in this respect William Berry has surely contributed greatly to the quality of this book. The artistic drawings, whether colored or in black and white, are real "attention getters" and convey much information as well. They are well chosen to collaborate with the text and by so doing increase the useful age range for which the text is suitable. What youngster would fail to understand the difference between the take off characteristics of "paddlers" and "divers" after looking at the "spring jump" of Mallards and Pintails compared to the running take off of Barrow's Goldeneyes? The functional importance of the "lamellate"

bill is compared to an ordinary household sieve; webbed feet next to the now well known "swim-fins" aids in understanding one means of propulsion in ducks. The long graceful neck of the swan is illustrated in its working guise by a Whistling Swan feeding on underwater plants. Indeed almost any of the numerous illustrations could well form the "core" for a discussion on some particular aspect of waterfowl biology.

One very apparent shortcoming to this book is the lack of a *suitable* recommended reading list. The author apparently thought this not important enough to warrant much deliberation. Consequently, the young reader or the parent, freshly interested in learning more about our waterfowl, is directed to several guides primarily for identification of birds. Although the guides contain other information as well, the style in most is such that a budding interest could easily be thwarted. It is

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Penguin Summer by Eleanor Rice Pettingill, 198 pages. Photographs by Olin Sewald Pettingill. Published by Clarkson N. Patler, Inc., 56 East 66th St., New York 21, New York. Price \$5.00.

"Penguin Summer" is a real opportunity for an exciting experience in the far away Falkland Islands from your arm chair. It is a spirited and engaging account of actual happenings on a Disney-sponsored photographic expedition shot through with touches of humor that repeatedly bouy up interest and sharpen ones attention. Dr. Pettingill is an author, photographer and lecturer well known for some years among the ornithological fraternity and recently appointed director of the Laboratory for Ornithology at Cornell University. This book by Mrs. Pettingill gives the fair sex's view of a scientist's expedition but it loses nothing of scientific accuracy in the amusing telling. Eleanor Pettingill's zest for living and her knack for seeing the fun in a serious task comes out and one who knows Dr. Pettingill can see the serious scientist coming to the fore as he checks over his spouse's accounts to see that she de-

unfortunate that such books as F. J. Kortwright's classical semi-popular *Ducks, Geese and Swans of North America* was not recommended for those interested in obtaining more detailed information on waterfowl biology. Anyone capable of utilizing the recommended *Birds of the Pacific States* by Hoffman could also understand and enjoy reading Hockbaum's *Travels and Traditions of Waterfowl* and Frank Stuart's fictional but interesting *Wind Wings*. Books such as these would tend to kindle the interest first sparked by Wong's otherwise excellent introduction.

In summary, however, it seems unnecessary to state that the *Ducks, Geese and Swans* by Wong is recommended as a book you should provide for the young naturalist in your family.—*Eugene LeFebvre, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*

viates not a whit from the facts in her handling of each little incident in the book.

It is a chronological account of happenings on the trip, not a novel with a plot. It has enough detail about the unusual lives of the Islanders to give one a good insight into their work and their thinking. England's most remote colony, the Falkland Islands, is a group of sheep raising Antarctic islands whose inhabitants hold so tenaciously to the British traditions as to leave little doubt of their roots being in old England.

Penguins, of course, constitute the center of ornithological interest in the book. These curious anthropomorphic birds interest almost anyone with their laughable antics. With Mrs. Pettingill's excellent word pictures of their performances teamed with the fine photographic work of her husband, one almost feels he is seeing a motion picture of the amusing yet remarkable activities of these highly entertaining birds. Three species, Gentoos, Rockhoppers and Jackass Penguins are followed in somewhat intermittent fashion through much of their

nesting season activities with many funny little episodes described in very sympathetic terms. Not all attention is turned to the penguins. Numerous other Falkland Island birds such as the King Shags, flightless Steamer Ducks, Kelp Geese, Black and White Oyster-catchers, predacious Skuas and the Mollymocks have the spotlight periodically.

The account gives a convincing picture of the wild ruggedness of these rocky islands as well as the equally rugged blustery weather that con-

stantly batters the area even in summer. "Penguin Summer" can be recommended as a thoroughly entertaining account of this expedition and if you anticipate hearing either of Dr. Pettingill's movie illustrated lectures, "Penguin Summer" or "The Faraway Falklands", by all means get Eleanor's "Penguin Summer" as an introduction. — *W. J. Breckenridge, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*

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LOON PAMPHLET STILL AVAILABLE

The M.O.U. pamphlet on The Common Loon, with text by Dwain W. Warner and colorplate by Dr. W. J. Breckenridge, has met with tremendous success. We still have a number of the pamphlets left. This is a very good opportunity for the affiliated clubs to start a money-making project by selling the pamphlets.

The pamphlets are available in quantity at a discount, and you need not pay the M.O.U. till they are sold. Please contact Bob Janssen for further information. Let's make some money for the M.O.U. and our club. If you haven't seen the pamphlet, order one now from the Museum of Natural History, University of Minnesota, Minneapolis 14, Minnesota.

"Ruffed Grouse at Sundown"

by

Roger E. Preuss

This issue marks the debut of full-color treatment of THE FLICKER cover. Featuring our top native upland game bird, "*Ruffed Grouse at Sundown*" is a sentimental tribute to Minnesota's surviving forests. The artist's conservation message—"Prevent Fires"—is a reminder that precious natural assets need your constant protection. Ol' "drummer" struts along a log with stately grace no other game bird can approach. His tail fans out like a royal robe.

Roger Preuss is recognized as one of the nation's foremost artists. His ability to portray North American wildlife with fidelity and dramatic appeal is acclaimed by critics and game authorities. His awards in national exhibitions are noted by *Who's Who in American Art*. Represented in museums and collections, his work appears in national publications and books—*Outdoor Horizons*, *Hunting Adventures*, and others. Best known for his dramatic wildfowl paintings, he is the first native-son artist to win the award for the Federal Duck Stamp design (1949). He is creator of the popular "Wildlife of America" annual series. A Fellow of the International Institute of Arts and Letters, he serves as Minnesota chairman of the National Wildlife Federation's wildlife week program. His contributions to art, ornithology and conservation are many. Much of his work features Minnesota's bird and animal life. More of his detailed color studies will be introduced on future covers of THE FLICKER.

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The Editors.

J. S. FUTCHER

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Secretary — Loes P. Scott, 514 Fountain Street, Albert Lea, Minnesota

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Editor — Robert B. Janssen, 1817 W. 59th Street, Minneapolis 19, Minnesota

Associate Editor — Dwain W. Warner, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.

THE PRESIDENT'S PAGE

I am writing this communication to you on Monday following the paper session which was held Saturday, December 2nd at the Museum of Natural History on the University of Minnesota campus.

During the meeting I asked those members attending to fill out a questionnaire concerning their interest in the M.O.U. and their reading habits of THE FLICKER. I am bringing a report of my findings from the tabulations to you so you can see how your interest rates with theirs. Of sixty persons who were registered thirty-six took the time to fill out one of these questionnaires, but some did not answer all the questions.

Question one would indicate a good interest in all the present departments of THE FLICKER. A listing of the officers of individual bird clubs only once a year, after the new officers have been elected, would apparently be sufficient with the back page being used for other materials.

Question two shows that the members present favor having one billing a year for dues to the M.O.U. That action was passed at the meeting. You will soon be billed for your 1962 dues. If someone becomes a member during the year they will be sent all back issues of THE FLICKER for that calendar year.

Question three gives us nearly a divided answer, with more in favor of printing the M.O.U. CALL NOTES in THE FLICKER than as a separate issue. If we were to mimeograph the CALL NOTES it would be less expensive than to have them printed.

Question four in regard to an annual membership roster is a close contest with the balance barely tipped in favor of it. This list would be of greatest help and interest to those M.O.U. members who do not belong to a bird club. They could use it to locate persons in their area of the state who are interested in birds. It might stimulate some of us to organize a new club in our area.

Question five indicates that most of our members present have known that we have had financial difficulty during most of the years of our existence.

Question six indicates little interest in listing past presidents or other officers. This question was put in because some national clubs do as a matter of history. We have no historian nor any planned pattern to recognize the work of members who have worked for years in the M.O.U.

Question seven shows an interest in writing up the field trips using the names of persons participating. Some were very emphatic in not wanting them printed. Others feel a need to build up a social spirit and have good fellowship when we get together at any of our M.O.U. meetings.

Question eight's answers indicate that our members want us to stay within the amount of money we have to use. The treasury dropped two hundred dollars this past year. It is the feeling of some that THE FLICKER publication is the major work of our M.O.U. organization, but even these members do not want us to get, "in the red." There was an expressed desire to keep up the quality of the paper and the material even if we cannot keep up the quantity of material published.

Question nine indicates that there is a great interest in publishing more material in each of these areas. During the paper session I often heard a desire expressed to have more reports on what the Museum staff is doing—in Minnesota. The feeling seems to be that the interest in Mexico is too great and that our organization should encourage them to give some guidance to the amateur birder so that he might help in some research projects in Minnesota.

Question ten offered a variety of answers. First and foremost was a desire for better public relations between the officers and the general membership. No one knows better than your President that we did not send out indi-

vidual notices of the Paper Session. William Longley has been working for weeks on the program and people take so long to answer his inquiry for papers. On Monday, before the session, he had only four papers and we should have put out a notice. I'll try to see that the membership is kept in closer contact not only for the paper sessions, but for all our meetings.

Other suggestions were: a copy of the M.O.U. Constitution for each member. It is possible that we might send this out as part of an issue of the CALL NOTES. Someone suggested that we have more contributors to THE FLICKER. Your editor would like that very much. He has enough material to put out two more issues already, but the material is from six to ten persons. We ought to be having contributions from at least fifty persons each time, for the Notes of Interest or individual longer papers. Won't you try to remedy the situation?

The matter of advertising was discussed, but the editor does not have time to do this. If we could get advertising from photography shops, feed companies, manufacturers of bird houses and feeders we would use it and the extra income would be most helpful. Anyone want to volunteer for the job of securing advertising?

One of the most valuable suggestions in my estimation was to have the different member clubs set up field trips about every three months. We haven't been in the Mankato area for years. Would they begin this plan?

One person expressed an interest in including more subjects than birds in THE FLICKER. This has been discussed and the editor and your president have felt this is a journal of Minnesota ornithology and we are trying to keep it just that.

This past year some sixty persons joined as new members and one hundred other persons were removed from our membership list for not paying dues. We need to keep the present members and each member might like to make it a goal to sell one new subscription this year; or, give a subscription to someone for a present. How about your local library, does it subscribe to THE FLICKER?

In former years many University students belonged to the M.O.U. but today there are very few. Do we need student rates for subscriptions? Can we encourage the Museum staff members to subscribe and encourage students to become members and contribute material from their field notes.

It is going to take all of us working TOGETHER to make our M.O.U. a success, not only financially, but as an organization. LET'S DO IT!

—*Forest V. Strnad*

NORTH SHORE FIELD TRIP

February 24-25 are the dates of the annual winter field trip meeting of the Minnesota Ornithologists' Union and the Thunder Bay Field Naturalists' Club.

The field trip will start at 8:00 a.m. Saturday, February 24 from the J. K. Bronoel home, 2010 E. First Street, Duluth. The last stop before leaving Duluth will be at Lester River Bridge on London Road. Many stops will be made along the shore to observe birds, such as the Oldsquaw, Glaucous Gull, Common Ravens and many others.

The dinner and meeting will be held Saturday evening in the Grand Marais High School. This year's program will be furnished by the Thunder Bay Field Naturalists' Club. Reservations for the dinner should be made with Mrs. A. M. Fenstad, Grand Marais, Minnesota. Cost of the dinner is \$2.00. This is an informal meeting, so come in your field clothes if you like.

Hotel reservations at Grand Marais may be made at either the East Bay Hotel or the Shoreline Motor Lodge. Remember that this is at the height of the skiing season, so hotel reservations should be made well in advance. If you belong to a M.O.U. affiliate club, consult your local chairman for further details or write to Mrs. Harvey Putnam, 1407 Woodland Avenue, Duluth, Minnesota.

REQUEST FOR INFORMATION — MIGRATION OF BUFFLEHEADS

A study of the Bufflehead is under way, and information on the migration of that species is needed. Data required include first arrival dates, peak date of migration and peak numbers, and departure dates. Only birds actually believed to be migrants should be listed, but, where pertinent, other data on wintering or summering numbers should be included. If only infrequent visits are made to areas frequented by Bufflehead, the statement "present by (date)" is preferable to "arrival (date)," and "last seen (date)" to "departure (date)". Information is solicited particularly for the spring migration of 1962, but it is hoped that interested observers will report any data they may have obtained in the past; requests for fall migration data will be made later. It is planned to color-mark some Buffleheads in Maryland, New York, and Oregon during the winter of 1961-62, and observers should take particular note of any Buffleheads bearing bright patches of red, yellow, or orange. Please send information on the Bufflehead to:

A. J. Erskine,
Canadian Wildlife Service,
P.O. Box 180,
Sackville, New Brunswick,
Canada.

BREEDING BIRD POPULATIONS IN RELATION TO GRASSLAND SUCCESSION ON THE ANOKA SAND PLAIN

by

Meribeth J. Mitchell

Introduction

Biotic communities are best described by correlating the dominant animal species with the typical vegetation form (Kendeigh, 1948). Birds tend to be highly specific in regard to territory selection in preparation for the breeding season (Johnson and Odum, 1956). Because fairly adequate census methods have been worked out for bird population studies, this group offers unique possibilities when one seeks to describe a biocies. The literature reveals no intensive study of grassland communities in this respect. In contrast, the breeding bird population of many forest asocies have been studied in detail.

This is a preliminary study of a grassland biocies. It was undertaken also to determine the practicality of utilizing fields at different stages of ecological succession on the Anoka Sand Plain for the study of successional and radiant energy requirements of grassland sparrows native to this region.

The project was carried out at the University of Minnesota Cedar Creek Natural History Area which is located on the Anoka Sand Plain, Anoka County, Minnesota. Information was obtained concerning the history of the grassland fields which were studied, and the dominant plant species and their relative abundance on each study area. Some information was obtained as to the variation in amount on each study tract of the measurable portion of the solar radiation.

The writer is indebted to the Committee for the Use of the Cedar Creek Natural History Area for permission to engage in this study, to Dr. Dwain Warner for suggestions concerning the problem and to Mr. Alvar Peterson for aid in locating suitable tracts for the study on the research area.

The Anoka Sand Plain

The grassland study plots were all located on the Anoka Sand Plain within the confines of the Cedar Creek Natural History Area. Following recession of the last ice sheet, the Mississippi River migrated southwest toward its old river bed, laying down a great expanse of outwash sand as it moved. The area was named the Anoka Sand Plain by Cooper (1935). In general the area is flat but there are some basins which form bogs, ponds, and lakes. The present study tracts were located on a portion of the flat upland area.

Methods

Five tracts at different stages of ecological succession were studied intensively. These ranged in size from ten to twenty-eight acres. The original plan had been to study fields which had been out of cultivation respectively for one, two, three, four, five, ten, fifteen and twenty years. The two-year and the four-year areas were dropped from the study when it became apparent on initial inspection of the fields that they did not differ significantly from some of the other fields included in the study. There were, for instance, no recognizable differences in successional advancement between the two and three-year fields or between the four and five-year fields. Rather, greater differences in development were noted within different areas of any one field than between certain fields. An eighteen-year field had to be substituted for the twenty-year tract because the latter was not available.

The five tracts studied had been out of cultivation for one, three, five, ten and eighteen years. The first of these was intermediate between bare ground and grassland, having been cultivated in corn the preceding year. Three tracts represented more ad-

vanced stages of grassland succession and the oldest one represented very early savannah development.

Each area was laid out in a grid with the markers fifty yards apart. The area was then mapped so that maps might be carried in the field. The census method employed was similar to that described by Williams (1936) and Kendeigh (1944). All data obtained through observation of birds, territorial fighting, nest building, feeding and records of singing males were recorded on the prepared maps.

The reliability of this census method is based on the thesis that most of the birds being studied maintain a type A territory as described by Nice (1941). Birds holding this type of territory are thus restricted in area during the breeding season (Johnson and Odum, 1956). There are definite limitations to counts carried out in this manner though it seems to be the most satisfactory way yet devised to study this type of territorialism. These limitations are described by Breckenridge (1950) and include the possibility of including singing non-breeding males, shifts in territories, weather conditions which influence the amount of singing and the difficulty of delimiting territories which are crowded closely together. Because of the open nature of the areas studied in this project and the sparse population of breeding birds, some of the above limitations don't apply to a grassland study as much as they do to a forest study.

Odum (1950) showed that in censusing areas ten acres or less in size, one tended to miss some of the less common species and also to get a count slightly higher than actually exists. His decision was that population figures obtained for areas ten acres or less in size should be reduced by ten per cent. This correction factor has been applied in this paper where appropriate.

Determination of territories was based on a minimum of seven early morning visits and at least one late afternoon check. These visits were made from June 15 to July 13 with most of them concentrated in the first

three weeks of that period. This represented a necessarily late start but seemed to include the peak of the nesting season. At the start of the study first broods were still in the nest. This was indicative of a late spring season.

The density figures represent the actual number of occupied territories to the nearest whole number as described in the method Odum (1956) used. This means that it represents the number of pairs of birds per 100 acres assuming that each pair of birds breeds and maintains a territory. When a territory was partially outside the study area, the appropriate fraction of it which lay within the study area was included in the density figures. Species of birds which have very large territories are included as they were observed but no attempt was made to estimate the size of these territories. Birds regarded as visitors to the area are not included.

The figures in Table I for the relative abundance of flowering plants are based on the average counts along three fifty yard grid lines. A line was run from one grid marker to another six inches above the ground and all the flowering plants which touched it were counted. When a species occurred on so few transects as to average less than one, its presence is simply indicated by a "+". These transects were run the last week in June and the first week in July. Thus this does not represent a complete botanical description of the area but only a listing of the more common plants. Botanical nomenclature is taken from Fernald (1950) and Harlow (1957).

TABLE I
Relative Abundance of Flowering Plants Along Transects in Five Fields at Different Stages of Ecological Succession

Plant	Field				
	1 yr.	3 yr.	5 yr.	10 yr.	18 yr.
<i>Berteroa incana</i>	38	1			
<i>Ambrosia artemisiifolia</i>	23	36	3		
<i>Convolvulus sepium</i>	15	1	3		
<i>Epilobium augustifolium</i>	11	1	1		
<i>Erigeron annuus</i>	3	3	2	5	10
<i>Lychnis alba</i>	2	1		4	3
<i>Chenopodium album</i>	2	2	1		
<i>Asclepias syriaca</i>	1	+	+		4
<i>Lepidium sp.</i>		27	31		
<i>Melilotus alba</i>		1		2	10
<i>Rosa suffulta</i>		1	4		

<i>Verbascum thapsus</i>	+	1	..
<i>Vicia Cracca</i>		15	4
<i>Solidago rigida</i>		6	10
<i>Oenothera biennis</i>		5	1
<i>Trifolium pratense</i>		3	3
<i>Lactuca Scariola</i>		+	..
<i>Potentilla canadensis</i>			4
<i>Lithospermum canescens</i>			3
<i>Campanula rotundifolia</i>			1

Light energy readings were taken using a Weston photometer made available through the courtesy of Dr. Roger Bray. Initial (control) readings were made at one and a half meters above the ground with the photo cell directed upwards. A reading was then made at grass-roots level in the same manner at five successive grid markers. These figures were averaged. The light at ground level in the least densely and the most densely appearing vegetation stands was also measured. In all cases the percentage difference between the total light and that which fell on the photo cell placed on the ground was computed.

Description of Study Areas

One year field. This field, which was one of the two smallest ones studied, was bordered on one side by a savannah-type upland oak woods. It had been planted in corn the preceding year. The rows of corn were still standing and there was much bare ground between the rows. See Figure 1. Quack-grass (*Agropyron repens*) was the dominant in this field. There were, on the average, six plants per square foot between rows, but the vegetation was more dense in the rows. Hoary alyssum (*Berteroa incana*) was the most common flowering plant. The relative abundance of the flowering plants is shown in Table I. This field was fairly level though it sloped toward a lower area on the east side. Pocket gopher (*Geomys bursarius*) holes and diggings abounded.

Three year field. This field was fifteen acres in size, and was bordered on the north and west by a narrow strip of successional more advanced grassland and beyond by oak upland forest. On the southwest it was bounded by oak upland forest. On the southwest it was bounded directly by a marshy area. On the east there was

an old fire lane beyond which lay a field that had been out of cultivation



Figure 1. One year field showing corn stalks from the preceding year and bare ground between the rows.

about eight years. Both of these fields had last been planted in soy beans. The dominant here again was quack-grass. Junegrass (*Poa pratensis*) was invading the field from the east. A few low shrubby roses (*Rosa suffulta*) were present. The most common additions to the quack-grass were ragweed (*Ambrosia artemisifolia*) and peppergrass (*Lepidium* sp.). Pocket gopher diggings were very numerous. This field was highest in the center and sloped in all directions very gently.

Five year field. This field which was about twenty-seven acres was bounded partially on the west by more open fields beyond which lay upland forest and also by a marshy area along the southwest corner. Beyond the field to the south lay open (but more mature) field. To the southeast lay a swampy area. Along the northern portion of the east line there was more open field. A narrow fire road bounded it on the north. This field was last planted in soy beans. Quack-grass was still the dominant plant and about three times more abundant than the Junegrass. There was one large patch of hairgrass (*Agrostis scabra*). The most common flowering plant was the peppergrass. The northwest corner of the field sloped and there were small sparsely

covered hills in this area. The rest of the field was quite level. Pocket gopher diggings were present but they were much less numerous than in the younger plots. See Figure 2.

Ten year field. This field was nineteen acres in extent and had last been sown to clover. Junegrass was the dominant in this stage of succession. It formed a fairly solid sod. Quackgrass was still present, however, but



Figure 2. Five year field showing better developed grass cover. The grass is mainly a mixture of quack-grass, junegrass and hairgrass.

was relatively sparse in distribution. Purple vetch (*Vicia cracca*), stiff goldenrod (*Solidago rigida*), evening primrose (*Oenothera biennis*) and daisy fleabane (*Erigeron alba*) were the most common flowering plants. The field was peculiarly shaped, approximating a "u". The southwest portion of the north arm of the "u" sloped to lower ground. It was completely surrounded except on the eastern portion of the north side by oak upland forest. It was being invaded along the edges by white pine (*Pinus strobus*), white oak (*Quercus alba*) and especially by sumac (*Rhus glabra*). Johnston and Odum (1956) pointed out that grassland surrounded by forest edges rich in birds and fruit-bearing plants is more quickly invaded by shrubs than are other grassland areas. Because of the better developed turf, very few pocket gopher holes were found. Where the forest extends between the two arms of the "u" there

is a little-used summer cabin, garden and introduced plants.

Eighteen year field. The surveyed portion of this field was twenty-eight acres. The southern half had last been planted in alfalfa while the northern half had been sown in corn. Junegrass was the dominant grass. Most common among the flowering plants were daisy fleabane, rigid goldenrod and white clover (*Melilotus alba*). Though the field sloped rather abruptly at the east end towards a swampy area and was a bit hilly in the southeast portion, most of the field was fairly level. All around the field there was a rather narrow band of land which had been out of cultivation longer. This, in turn, was bounded by oak upland forest except as mentioned above on the east end. There was a thick sod and practically no evidence of pocket gophers except on some of the drier hills which had a less well-developed turf. At the west end of the field were some large-toothed aspen (*Populus grandidentata*). In addition to these young trees, there were green ash (*Fraxinus pennsylvanica*), northern pin oak (*Quercus ellipsoidalis*), willow (*Salix*, sp.), choke-cherry (*Prunus virginiana*) and some sumac. The field presents the appearance of a very early developing savannah. See Figure 3.



Figure 3. Eighteen year field showing early savannah development.

Results

Comparing the descriptions of the five different areas, one notes that ecological plant succession had not been

very rapid. Invasion of these areas by birds has been even slower. Only two birds were found to breed on any of the research tracts. Only one of these was a grassland sparrow, the Vesper Sparrow (*Poocetes gramineus*). It was the only breeding species on three of the study areas (see Table II), and it also nested on the other two tracts. It reached its highest concentration on the ten year field. Only in the eighteen year field was the Chipping Sparrow. (*Spizella passerina*) more numerous. Not only did no other grassland sparrows nest on the areas, but no other species were seen on these areas.

TABLE II
Breeding Bird Population on Five Study Areas
(Pairs per Hundred Acres)

Bird	Field				
	1 yr.	3 yr.	5 yr.	10 yr.	18 yr.
Vesper Sparrow (<i>Poocetes gramineus</i>)	18	18	24	27	14
Chipping Sparrow (<i>Spizella passerina</i>)	00	00	00	21	24

The Chipping Sparrow nested on both the ten year and the eighteen year field. This bird is classified by some as an edge species, but using Odum's definition for an edge species, it does not fit that category in these circumstances. The Chipping Sparrow's invasion of the grassland occurs with the advent of shrubs and small trees.

Both of these birds are well adjusted to a grassland type vegetation. The Vesper Sparrows built their nests in hummocks of dry grass in hollows on the ground. The south side of each nest was built higher in each case providing a partial cover. This protected the incubating birds and the eggs from the direct sunlight. The males sang from stalks of vegetation or in several cases from the tops of the grid markers after they were put up. They selected these particularly in the one, three and five year fields where there weren't good natural song posts.

The Chipping Sparrows built their nests low in shrubs. The nests were placed in the fork of the branch by

the main stem. The males selected song posts in nearby shrubs.

Table III shows the species which are considered to be edge species. The term edge species is used here as defined by Odum except that it is not limited to a forest-grassland edge. Included also is the marsh-grassland edge. A bird characteristic of the latter type of edge would be the Red-winged Blackbird (*Agelaius phoeniceus*). This species utilized the grassland adjacent to the marsh for feeding and anting. Breeding populations of the edge species were not determined because none of them actually nested on any of the areas.

The following birds which have very large territories also used the area: Blue Jay (*Cyanocitta cristata*) Mourning Dove (*zenaidura macroura*), Red-tailed Hawk (*Buteo jamaicensis*) and Marsh Hawk (*Circus cyaneus hudsonius*). No effort was made to study the size of these territories.

TABLE III
Edge Species Found on the Five Study Areas

Bird	Field				
	1 yr.	3 yr.	5 yr.	10 yr.	18 yr.
Baltimore Oriole (<i>Icterus galbula</i>)	X	..	..	..	..
Cedar Waxwing (<i>Bombycillia cedrorum</i>)	X	..	..	..	..
Song Sparrow (<i>Melospiza melodia</i>)	X	X	..	X	X
Eastern Kingbird (<i>Tyrannus tyrannus</i>)	X	X	..	..	X
Downy Woodpecker (<i>Dendrocopus pubescens</i>)	X	X	..	..	..
Eastern Phoebe (<i>Sayornis phoebe</i>)	X	..	..	X	X
Warbling Vireo (<i>Vireo gilvus gilvus</i>)	X	..	..	..	X
Redwinged Blackbird (<i>Agelaius phoeniceus</i>)	..	..	..	..	..
Yellowthroat (<i>Geothlypis trichas</i>)	..	..	X	..	X
Indigo Bunting (<i>Passerina cyanea</i>)	..	..	..	X	X
Black-capped Chickadee (<i>Parus atricapillus</i>)	..	..	..	X	X
Catbird (<i>Dumetella carolinensis</i>)	..	..	..	X	..
Scarlet Tanager (<i>Piranga olivacea</i>)	..	..	..	..	X

Table IV shows the variation in available light on all five tracts. The figures are given as per cents of the total light at breast height at the same time and place. Though there is a gradual decrease in the percentage of available radiation from the one year field to the eighteen year field, there was a greater variation in

available light within any one field. Actual readings in foot candles ranged between 2,000 to 11,700.

TABLE IV
Percentage of Radiant Energy as Measured by a Weston Photometer on Five Study Areas

Percentage of Solar Radiation	Field				
	1 yr.	3 yr.	5 yr.	10 yr.	18 yr.
1½M above ground	100	100	100	100	100
At vegetation roots	98*	51	53	40	43
	36*	..	..	..	..
Barest Area	100	100	98	82	90
Densest Area	20	21	19	10	11

* Between corn rows

** In corn rows

Light meter readings were also made at the sparrow nests which were located. With the photo cell placed within the nest, the range in readings (in foot candles) for Vesper Sparrow nests was from 2,000 to 3,000. All of these nests were constructed on the ground with the open side facing north so that the nest was protected from the sun. Readings in Chipping Sparrow nests ranged from 2,000 to 2,500 foot candles. These nests were placed low in small shrubs. One Indigo Bunting nest was found and the light intensity in it was 1,200.

Discussion

Comparing Odum's description of a twenty year field with the eighteen year field studied in this paper, it seems that ecological succession progresses at a slower rate on the Anoka Sand Plain than in the region described in Georgia. One reason for this might be difference in length of growing season. Another indication of this is shown by the low breeding population of the former area as well as the lack of variety among the birds which did breed. Kendeigh (1941) studied the birds on a section of prairie near the center of the true prairie association. Parts of it had never been plowed but it had been pastured up to twelve years before the study. There were four species breeding on the study area and 104 birds per one hundred acres. Johnston and Odum (1956) reported seven species breeding on the fifteen year field and nine species breeding on the

twenty year field. There were 105 pairs of nesting birds per one hundred acres on the former area and 127 pairs of breeding birds per one hundred acres on the former area and 127 pairs of breeding birds per one hundred acres on the latter area. Compared with this, only two species nested on both the fifteen year and the eighteen year tracts in Minnesota and the population density was only the equivalent of forty-eight pairs of breeding birds per hundred acres on both of these areas.

Referring to Kendeigh's term biocies which he introduced (1948) to distinguish biotic communities, these areas would best be described as a Poecetes-Spizella Grassland Biocies. Though this term has been interpreted by some (Phillips 1959) as being indicative of the Clementsian monocl意思 theory rather than the polyclimax theory of succession, it does seem to provide a unique way for describing a biotic community.

One would expect the population density to be less than in a forest habitat (Kendeigh 1958), and it is less than in the surrounding oak upland forest (Mitchell, 1960). The dry nature of these upland fields would not be conducive to heavy concentrations of birds (Johnston and Odum 1956). In a survey by Kendeigh (1948) of a poor grassland area, he reported fifty-six pairs of nesting birds per hundred acres. There were eight species included in this group. One reason for the difference in population density figures in Kendeigh's report and in the current one may be due to the size of his study area. It comprised one hundred acres. Thus it would be probable that he would pick up some less common species. Six of the eight species were listed as one pair per hundred acres. Another reason which might be postulated for the lower population densities on areas in the current study is the ready availability of much larger grassland tracts in the surrounding countryside off the Cedar Creek Natural History Area. It might be that population pressure is not great enough to force the use of these small isolated fields. In this study, the large

est field available for each successional stage was chosen.

Table III shows that many of the edge species will use more than one successional stage of grassland. The first criterion for determining the edge species for a particular grassland tract is the type of edge which surrounds the field, i.e., marsh, forest, etc. Second, vegetation type appears to be more important to some birds than species composition of the type community. The Song Sparrow is found on four of the five successional areas. In contrast to this species, there were species like the Indigo Bunting and Catbird (*Dumetella carolinensis*) which were found utilizing only the later successional stages of grassland.

Table IV showed that while there was a gradual decrease in the average amount of available light as one advanced from one successional stage to another, there was still more variation in available light within any one field. This may help to explain how the Vesper Sparrow can nest successfully on all five areas. Light meter readings at all the Vesper Sparrow nests regardless of the tract on which they were situated ranged between 2,000 and 3,000 foot candles. Readings at Chipping Sparrow nests ranged between 2,000 and 2,500. The light intensity at the one Indigo Bunting nest was still lower. From the limited information that was gathered concerning available light in relation to selection of nest site and techniques of nest construction, it seems as if it would be profitable to continue studying the light requirements of nesting birds in an effort to determine if such a factor is important in selection of nesting sites.

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- Department of Biology, Western Washington College, Bellingham, Washington.

NESTING BELL'S VIREOS BANDED IN HOUSTON COUNTY

by

Ronald L. Huber

On 10 June 1961, Harding Huber and I were birdwatching in Houston County, hoping to see the Bell's Vireo, Yellow-breasted Chat, Bobwhite, and any other summer birds that are usually to be found in that area. Our first real birding stop was at Reno, where we usually record some of these species. A Black-billed Cuckoo called from a tree near the cement spillway, and we found a young flightless Brown Thrasher, which we banded. In a nearby tree, we found a nest containing young Robins, but they were too small to band.

Shortly thereafter, we heard the Bell's Vireo singing. The bird was soon spotted, sitting in a nearby bush. We approached it several times and flushed it to another bush, but each time it would return to the original bush. We then searched carefully for a nest, but found nothing. Since the bird was so persistent in returning to the same bush each time, we figured we could mist-net him easily. I set up a one-inch hummingbird mist-net between several bushes nearby and then we flushed him from bush to bush and into the mist-net. After we had released him, with band number 64-52201, he fluttered weakly to the base of the original bush. It appeared that one of his wings had been traumatized from the mist-net, so we pursued him in order to examine the wing more closely. We were unable to find him, but we did find, barely inches from our face, the female, sitting on a nest. She had apparently been there all the while when we were searching for the nest, and yet she was still holding fast. I reached carefully to remove her from the nest, but she fluttered away, brushing against my fingertips. In a moment, she too, was in the mist-net.

The nest was measured at twenty-nine inches from the ground, well out on the small branch to which it was fastened. The nest itself was three by

two and a half inches in diameter and was roughly two and a half inches high. The inside cup measured two inches deep. It was lined with fine, thin brownish grasses and some tissue paper. The four dull white eggs measured 17.4 x 13.4, 17.4 x 13.1 and 17.3 x 13.1 millimeters (using a Glogau's vernier calipers), and were speckled sparsely with brown, mostly near the large end. The thin shells were rather translucent and thus showed the contents to be very fluid; hence the eggs must have been freshly laid within the previous day or two. The exact location was SW $\frac{1}{4}$, S25, T102N, R4W (Atlas of Minnesota, T. O. Nelson Co., 1956).

Pitelka and Koestner (1942) reported as follows on an exchange on the nest: ". . . the female approached and sang twice. The occurrence of female song in this species was not ascertained further . . ." From this we might presume that the female is rather quiet. It is therefore interesting to note that the female paused for a moment to sing, just before flying into our mist-net. Her song was indistinguishable from that of the male.

The occurrence of one of the birds on the nest was inconclusive as to the sex of the bird because both sexes are known to incubate the eggs (Bent's "Life Histories," 1950). The male, however, is very loquacious and, "Unlike most birds . . . sings a great deal in the home bush." (ibid.). This is what led us to assume the sexes of the two birds we banded.

Although no larger than a wren, the female could bite rather sharply. We affixed band number 64-52202 and released her. I have reason to believe that these were the first Bell's Vireos ever banded in Minnesota.

No other spectacular birds were seen during the trip, although five Turkey Vultures were seen in the air at one time near a bluff two miles south of Reno. Cuckoos (both spe-

cies) were extremely abundant, more so than we had ever seen them before, and were calling almost continuously. Perhaps this may have been a late wave of migrants, because although they breed in the area, we had never found them so populous before. Also of special interest on the trip were three Giant Swallowtail butterflies (*Papilio cresphontes*) which are possibly the first seen in Minnesota in the past twenty years or so. Macy and Shepard (1941) list only four previous records for the state, between 1932 and 1937. We saw the first one about two miles south of Reno, another near Caledonia and the last near Freeburg, all in Houston County. When pursued, they retired swiftly to the heavy woods, and we were unable to capture any.

On 1 July 1961, we returned to Reno, hoping that after 21 days, the young would be ready for banding (allowing 14 days for incubation plus 11 days before leaving the nest). We were disappointed, however, as we neither heard nor saw any sign of the Bell's Vireo and we found the nest abandoned. This time it contained only three eggs, one of which was pierced and contained maggot-like larvae. The bush was infested with "fishflies" (Mayfly, *Hexagenia bilineata*). Since the nest and eggs were abandoned, we collected them for the Minnesota Museum of Natural History.

Brother Theodore found six nesting pairs at Winona in July and August of 1952 (*Flicker*, Dec. 1952) and collected one egg and one nest. This fact was left unpublished however. He

found another nest during the summer of 1957 in the same area (*Flicker*, Sep. 1957) but did not collect it. It appears then, that we have collected the third nest for the state (Dr. Roberts, 1932, reported that an empty nest was taken on May 31, 1922 at Fort Snelling, just south of Minneapolis. This would make the egg taken by Brother Theodore in 1952 the first for the state.) and probably the first "full-clutch" of eggs. There are no previously published Houston County nesting records although we saw a single Bell's Vireo in Reno on June 29, 1958. We also saw one on July 19, 1959 between Carimona and Forestville in Fillmore County. Little by little, the known breeding range of this species in Minnesota is being unfolded.

The bush which contained the nest was a young, shrub-like American Elm (*Ulmus americana*) about five to six feet high. In addition to the long grasses in the area, Smooth Sumac (*Rhus glabra*), Queen Anne's Lace (*Daucus carota*) and Yellow Sweet Clover (*Melilotus officinalis*) were the predominant flora.

Blue-winged Warblers were heard often in Houston and Winona Counties, and four Yellow-breasted Chats were seen about two miles south of Reno.

On 14 July 1961, Robert Janssen stopped at Reno to look for the Bell's Vireo, but was unable to find it. Apparently the birds had left the immediate area for the duration of the summer.—3121 Georgia Ave. So., Minneapolis 26, Minnesota

SECOND YEAR STUDY, HARBOR ISLAND, DULUTH

by

Robert R. and Sydney B. Cohen

Our readers will recall the article in the September, 1960, issue of *The Flicker* entitled "A Study of Harbor Island, Duluth," which gave a brief history of Harbor Island and the methods and results of an inventory of birds and vegetation present in late June of 1960. Note was made of the creation of the island in St. Louis Bay in 1934 as a mass of sand, by dredging operations, of the establishment, spread, and rise of vegetation on the island, and of the succession of bird life from birds of the sandy beach to those of the brush and woodlands. In the study, the island was mapped out in 50 yd.-square units, and a composite map prepared from these units which appeared with the article.

A repeat of this study was made in 1961 from June 24 to June 29. Methods of mapping were similar but more exact, resulting in a more accurate picture of the island. Greater detail was then incorporated in the composite accompanying this article.

Two major topographical changes have occurred since 1960. First, the channel between the island and the mainland, which previously could be waded across, was dredged to a depth of over 8 ft. this spring. This change has created greater isolation of the island, mainly with respect to children and dogs, which could be considered as a change in the ecology of the island. The second topographical change can be seen on the map; that is, large sections of the stand of birch, alder, poplar, and willow bordering the eastern shore have been cut down. This was done by residents of Minnesota Point opposite the island, in the elimination of obstructions of a view.

The period from late May to late June of 1961 was extremely dry in the Duluth area. The greater area of dead brush, as compared to the previous year, in the south-central area of the island, is probably a result of

this dryness. The vegetation involved here was mainly Sandbar Willow, *Salix interior*.

A comparison with the map from last year will show that the total bird population recorded this year is significantly higher than that of last year, but that the list of species was much the same. The same numbers were used this year in the designation of species; the list contains all species for the two studies. It is felt that these differences validly indicate actual differences, due to the similarity of methods employed.

Again the population of the island was predominantly of four species, which are listed below with numbers of pairs, determined or inferred, for the two years:

	1960	1961
Redwinged Blackbird	21	33
Yellow Warbler	28	29
Song Sparrow	20	24
Brown Thrasher	9	16

The lack of rain-storms, which did occur the previous year, and the reduction of human and dog activity on the islands, during the breeding season, are possible factors in these population increases.

Other changes in the bird life on the island are as follows:

No Yellowthroats were found this year, as compared with four territories last year.

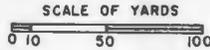
Common Crows did not nest on the island this year, whereas at least one pair did last year.

The number of adult Blue-winged Teal evident in the vicinity was much lower in 1961 than in 1960.

An unsuccessful nesting of Common Terns took place this year; remains of several nests were found in the location indicated in the central area of the map, but at no location did adults act as if they were still nesting there. The birds probably re-nested at the large colony on the

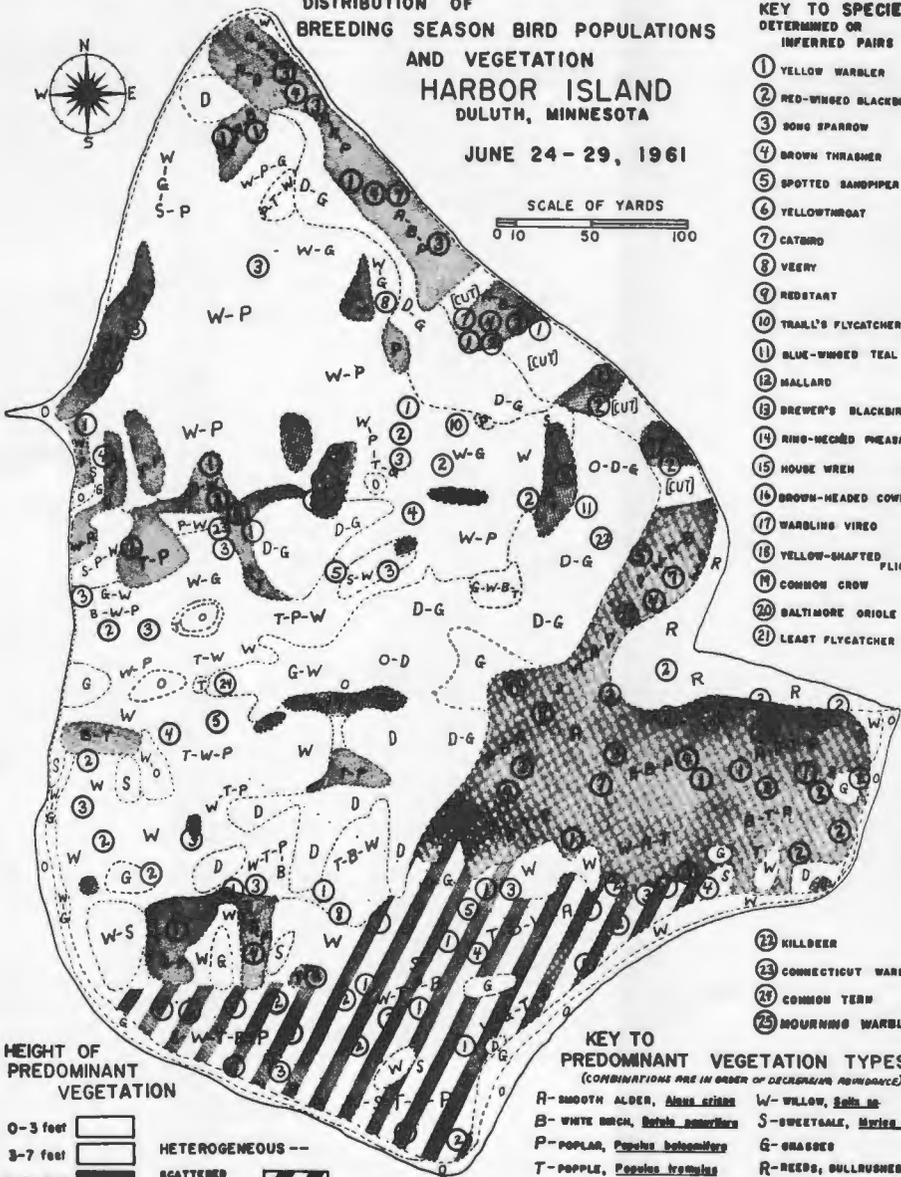
DISTRIBUTION OF
BREEDING SEASON BIRD POPULATIONS
AND VEGETATION
HARBOR ISLAND
DULUTH, MINNESOTA

JUNE 24-29, 1961



KEY TO SPECIES,
DETERMINED OR
INFERRED PAIRS

- ① YELLOW WARBLER
- ② RED-WINGED BLACKBIRD
- ③ SONG SPARROW
- ④ BROWN THRASHER
- ⑤ SPOTTED SANDPIPER
- ⑥ YELLOWTHROAT
- ⑦ CATBIRD
- ⑧ VEERY
- ⑨ REDSTART
- ⑩ TRAIL'S FLYCATCHER
- ⑪ BLUE-WINGED TEAL
- ⑫ MALLARD
- ⑬ BREWER'S BLACKBIRD
- ⑭ RING-NECKED PHEASANT
- ⑮ HOUSE WREN
- ⑯ BROWN-HEADED COWBIRD
- ⑰ WARBLING VIREO
- ⑱ YELLOW-SHAPED FLICKER
- ⑲ COMMON CROW
- ⑳ BALTIMORE ORIOLE
- ㉑ LEAST FLYCATCHER
- ㉒ KILLDEER
- ㉓ CONNECTICUT WARBLER
- ㉔ COMMON TERN
- ㉕ BOURNING WARBLER



HEIGHT OF
PREDOMINANT
VEGETATION

- 0-3 feet HETEROGENEOUS --
- 3-7 feet SCATTERED
- 7-35 feet SMALL GROVES

KEY TO
PREDOMINANT VEGETATION TYPES
(COMBINATIONS ARE IN ORDER OF DECREASING ABUNDANCE)

- R-SMOOTH ALDER, *Alnus crispa* W-WILLOW, *Salix sp.*
 B-WHITE BIRCH, *Betula pumila* S-SWEETGALE, *Myrica aspera*
 P-POPLAR, *Populus balsamifera* G-GRASSES
 T-POPPLE, *Populus tremula* R-REEDS; SULLAGHES
 D-DEAD BRUSH, MAINLY WILLOWS O-OPEN SAND

Point beyond the recreation area, in which most of the young were in their first week of age at this time. No such remains were found on the island in 1960; it is possible, however, that they were present and overlooked.

From the map, it is easy to see the significance of habitat that is heterogeneous with respect to type and height of vegetation. Most of the birds of the island were found in areas where such conditions existed.

No obvious change in bird life occurred in these two seasons, in the direction of a greater percentage of

woodland species. In 10 years, perhaps, such a change will have taken place. An indication of a new stage in the succession of vegetation on the island was found in 1961 in the Jack Pine and White Pine that are beginning to become established in the southeast quarter of the island.

The nature of the vegetation and the bird life of this piece of land, at this stage in its history, has now been determined; these studies will serve as an accurate reference in decades to come.—719 East Sixth Street, Duluth 5, Minnesota.

THE FALL SEASON

by

Ronald L. Huber

General Considerations: Reports were received from 21 observers, most of whom are from the Twin Cities or the Duluth-Iron Range area. Red Wing and Milbank, South Dakota (near Salt Lake, Lac Qui Parle County, Minnesota) were reported from. Avifaunal Club members covered the state, as usual, from Heron Lake, Jackson County to Duluth; Lake Traverse, Traverse County; Rothsay, Wilkin County; Ely, St. Louis County; Grand Marais, Cook County, and Reno, Houston County. Two hundred and forty-one species were reported for the fall season.

GALIFORMES: Only the Common Loon was reported this season.

Common Loon: Last seen in northern Minnesota on 28 Oct. at Virginia, St. Louis County, by Nels Hervi.

COLYMBIFORMES: Three of Minnesota's five species were reported.

Red-necked Grebe: Jan Green reports one at Duluth on 1 Nov.

Horned Grebe: Several seen 28 Oct. near Two Harbors, Lake County, by members of the Avifaunal Club.

PELECANIFORMES: Both species were reported.

White Pelican: Jerry Church saw one at Two Harbors in Oct. This will appear later in the *Flicker* as a note of interest.

Double-crested Cormorant: J. K. Bronoel reports one at Duluth on 30 Nov.

CICONIFORMES: Six of the twelve species reported for Minnesota were seen.

Green Heron: A. C. Rosenwinkel saw one 7 Oct. in Ramsey County (last report).

Common Egret: Latest report was by Avifaunal Club members at north end of Lake Traverse on 12 Oct.

Black-crowned Night Heron: Last report this fall was 12 Oct. at north end of Lake Traverse, seen by Avifaunal Club members.

Least Bittern: Last report was 1 Oct. at Heron Lake, Jackson County, by Avifaunal Club members.

American Bittern: Last report as for Least Bittern.

ANSERIFORMES: Of 36 species known to have occurred in Minnesota, 29 were reported this fall.

Whistling Swan: One seen 5 Nov. at Fisher Lake, Scott County by R. Huber. Another was reported shot at Duluth during first week of Nov., reported by Mrs. Putnam.

White-fronted Goose: Three were seen with a large flock of Blue, Snow and Blue X Snow hybrids on Lake Traverse, 11 Nov. by Avifaunal Club.

Greater Scaup: Avifaunal Club members saw one with a small flock of Lesser Scaup at Duluth on 28 Oct. Two were seen there on 28 Nov. by Jan Green.

Oldsquaw: First reported 13 Oct. at Two Harbors by Jerry Church. He had last seen them there on 2 Jun.

White-winged Scoter: Jan Green reports that from one to three were seen at Duluth on 26 and 28 Oct. and 15 Nov.

Surf Scoter: Jan Green reports that from two to five were seen at Duluth between 17 and 28 Oct.

Common Scoter: Between 17 Oct. and 5 Nov., Jan Green reports that from two to seven Common Scoters were seen at Duluth. Three were seen at Grand Marais, Cook County on 25 Nov. by the Huber brothers.

FALCONIFORMES: Sixteen of 21 species were reported. Hawk count at Duluth was very successful.

Turkey Vulture: Last seen 7 Oct. when Gordon Gullion saw 12 at Cloquet Forest Research Station, Carlton County.

Goshawk: Last seen at Duluth on 1 Nov. by Jan Green. First Twin Cities report was by A. C. Rosenwinkel, 18 Nov., Ramsey County.

Harlan's Hawk: One seen by Avifaunal Club members 4 and 5 Nov. at Fisher Lake, Scott County.

Golden Eagle: Two seen at Duluth on hawk count, 15 and 23 Sep.

Bald Eagle: Five were seen on 15 Sep. at Duluth, on hawk count. One adult and one immature seen by Avifaunal Club at Lac Qui Parle Reservoir on 11 Nov., one immature seen by same group on 10 Sep. at Whitewater State Park, Winona County and two immatures seen by the Huber brothers near Two Harbors on 25 Nov. Mathilda Henkel reports one adult and one immature at Holden Township, Goodhue County, on 24 Oct. and another immature there on 17 Nov.

Peregrine Falcon: Last report was 25 Sep. at Duluth by Jan Green.

GALLIFORMES: Five species were reported this fall. Nine species have been known to occur in the State.

Sharp-tailed Grouse: Several were seen near East Lake, Aitkin County by Bob Janssen on 21 Oct.

Bobwhite: R. Oehlschlager saw two coveys near Caledonia, Houston County, on 24 and 25 Nov.

Chukar: Thirteen were seen at Ely, St. Louis County on 28 Oct by Avifaunal Club.

GRUIFORMES: Five of the 8 species known to occur in Minnesota were reported.

Sandhill Crane: Members of the Avifaunal Club saw nine near Rothsay, Wilkin County on 12 Oct.

Virginia Rail: One was seen at Heron Lake, Jackson County by the Avifaunal Club on 1 Oct.

Yellow Rail: Karl Hankins found one, alive, in the Silver Bay Taconite Plant, Lake County. No date given as yet. He took it to the U. of M., Duluth, where the specimen was put up as a museum skin.

CHARADRIIFORMES: Most of the species in this group passed through in their highest concentrations in August, and by mid-September their numbers were greatly reduced. Twenty-two of 34 species of shorebirds were reported, and 6 of the 16 species of jaegers, gulls and terns were reported.

American Woodcock: Avifaunal Club members saw two in Carlton County, just south of Duluth on 2 Sep. R. Oehlschlager saw one on 19 Sep. in Cass County, about 10 miles north-east of Nimrod, Wadena County. Gordon Gullion reported five in Cloquet Forest Research Center on 12 Oct. and R. Huber saw one 28 Oct. near Virginia, St. Louis County.

Knot: Several that were seen in late Aug. at Duluth were still there on 2 and 9 Sep., seen by Avifaunal Club. All were in fall plumage.

Dunlin: A fairly late Dunlin was seen 12 Oct. by Avifaunal Club at Salt Lake, Lac Qui Parle County and another the same day near Elbow Lake, Grant County. Both were in fall plumage.

Long-billed Dowitcher: Same as for Dunlin, except that at least 50 were seen, in fall plumage, near Elbow Lake. On 1 Oct., near Windom, Cottonwood County, 38 were seen by Avifaunal Club.

Short-billed Dowitcher: Bob Janssen saw (or should we say "heard") his first one on 2 Sep. at Fisher Lake, Scott County.

Western Sandpiper: Two that had been seen at Duluth by Avifaunal Club in late August were still there on 2 Sep. They were not seen on 9 Sep., despite a thorough search.

Buff-breasted Sandpiper: Several that were present at Duluth during late August were missed on 2 Sep. but seen again on 9 Sep. by Avifaunal Club.

Whimbrel: One seen at Duluth on 9 Sep. by Avifaunal Club members.

Parasitic Jaeger: Three were seen at Duluth by Avifaunal Club members on 2 Sep. Not seen 9 Sep. Close looks at the amount of white in the primaries made the identification fairly certain.

Bonaparte's Gull: Last report was a single bird on 28 Oct. at Duluth, seen by members of Avifaunal Club.

CUCULIFORMES:

Black-billed Cuckoo: One seen 16 Sep. at Lake Vadnais, Ramsey County by A. C. Rosenwinkel. Mathilda Henkel reports one on 10 Oct. in Hol-

den Township, Goodhue County. This was eight days later than the latest date given in Roberts.

STRIGIFORMES: Eight of our 12 species were reported.

Screech Owl: One seen on 27 Nov. at University Campus, Minneapolis, by R. Huber.

Great Horned Owl: Gordon Gullion reports one at the Cloquet Forest Research Center on 5 Oct. A. C. Rosenwinkel reports one at Lake Vadnais, Ramsey County on 11 Nov.

Snowy Owl: Two were seen on 20 Nov. and two more, apparently different birds because of plumages, seen 28 Nov. at Duluth by Jan Green.

Hawk-Owl: John Hale reported one at Duluth on 9 Nov. Seen again on 12 Nov. by Jan Green.

Barred Owl: One seen 8 Nov. and another 24 Nov., both in downtown Duluth. Pictures appeared in *Duluth News-Tribune*. A. C. Rosenwinkel saw one at Lake Vadnais, Ramsey County on 11 Nov.

Long-eared Owl: One was seen 24 Nov. on University campus, Minneapolis, by R. Huber.

Short-eared Owl: John Hale reported one near his home in Duluth from the last week in October to the first week in November. Two seen near Caledonia, Houston County on 24 Nov. by R. Oehlenschlager.

Saw-whet Owl: Mrs. Micensky reports that Mrs. Clara Lilley saw one at Hibbing, St. Louis County on 8 Oct.

CAPRIMULGIFORMES: Only the Common Nighthawk was reported this season. A late report of the Whip-poor-will for the summer season is included here because it is a species of interest to most birdwatchers.

Whip-poor-will: A. C. Rosenwinkel reports that John Hall heard one calling near Highwood, Ramsey County on 3 July.

Common Nighthawk: Apparently moved out in several large waves. On 20 Aug. near Camp Ajawah, Anoka County, Avifaunal Club members saw a flock of more than 100 moving

south. About a month later, on 22 Sep., A. C. Rosenwinkel saw 30 or more, apparently the last of a large flock, in St. Paul. A smaller but concentrated group was seen in Minneapolis on 8 Oct. by R. Huber and W. R. Pieper.

PICIFORMES: Seven of our nine species were reported.

Yellow-bellied Sapsucker: A rather late report for Northern Minnesota was submitted by Edna Fox, who saw one of 29 Oct. at Duluth.

PASSERIFORMES: Species were reported from each of Minnesota's 21 passerine families.

Tyrannidae: Nine of 12 species were reported. All moved through as usual. Only the Eastern Phoebe was reported in any numbers and the Eastern Wood Pewee was fairly late.

Eastern Phoebe: Largest concentration reported by Dean Honetschlager, who saw 20 on 20 Sep., near Marine-on-St. Croix, Washington County.

Eastern Wood Pewee: Latest report was 1 Oct. near Heron Lake, Jackson County, by Avifaunal Club. Roberts lists latest date as 5 Oct.

Hirundinidae: Six of the seven species reported. All moved through about as usual. The Purple Martin remained longest, and they were last seen during the first week of October.

Sittidae: Both nuthatches were reported by most observers. Strangely enough, the Red-breasted was reported often in September and October but there were only two reports for November. What looked at first like a possible invasion apparently did not materialize.

Troglodytidae: Four of seven species were reported this fall.

House Wren: Latest report was 1 Oct. at Heron Lake by R. Huber.

Winter Wren: J. S. Fitcher reported one in Minneapolis on 1 Oct. A. C. Rosenwinkel saw one in St. Paul, 24 Sep. Jane Olyphant saw one in Washington County, at Lake Olson, on 14 Oct.

Long-billed Marsh Wren: Last report was 1 Oct. at Heron Lake, seen by Avifaunal Club.

Short-billed Marsh Wren: Last report same as for Long-billed Marsh Wren.

Turdidae: Six of eleven species were reported.

Hermit Thrush: Last reported on 13 Oct. at Duluth, P. B. Hofslund.

Swainson's Thrush: Last reported on 18 Oct., Cloquet Forest Research Center, by Gordon Gullion.

Gray-cheeked Thrush: Last reported 7 Oct. at Duluth by P. B. Hofslund.

Mimidae: Two of the three species were reported. The Catbird was very late.

Catbird: Last report was 24 Oct. near Lake Olson, Washington County, when a single bird was trapped by Jane Olyphant.

Motacillidae: Both species were reported.

Water Pipit: At least ten were seen on 26 Oct. near Rockford, Wright County by A. C. Rosenwinkel. Many seen on 12 Oct. at Salt Lake, Lac Qui Parle County by Avifaunal Club members.

Sprague's Pipit: Richard Oehlenschlaeger collected one specimen five miles east of Nimrod, Wadena County on 22 Sep. This locality is on the very fringe of the Boreal-coniferous zone.

Bombycillidae: Both species were reported.

Bohemian Waxwing: As with the Red-breasted Nuthatch, it appeared that an invasion of this species would occur. But all reports have been for small numbers. P. B. Hofslund saw two on 21 Oct. at Duluth. Jan Green reported them present in small groups all through November, but never more than six per group. A. C. Rosenwinkel reported six in a spruce thicket near Lake Vadnais, Ramsey County on 11 Nov. That same day, in the western part of the state, Avifaunal Club members saw a single bird at the north end of Lake Traverse.

Vireonidae: Five of seven species were reported.

Red-eyed Vireo: Last report from Northern Minnesota was 15 Sep. at Duluth by Jan Green. Last report for Southern Minnesota was 18 Oct. near

Lake Olson, Washington County, by Jane Olyphant. This record was 13 days later than Roberts' late date.

Compsothlypidae: Twenty-nine of 40 species were reported. Species of this family passed through in their greatest numbers during late August, although the migration as a whole was rather leisurely. By mid-September their numbers were greatly reduced. Due to mild weather, however, some exceptionally late stragglers were reported.

Cape May Warbler: On 30 Nov., more than two months later than the latest date listed in Roberts (28 Sep.), a single bird was captured near St. Cloud, Stearns County by Max Partch.

Black-throated Blue Warbler: Three were seen by P. B. Hofslund at Duluth on 11 Sep. Mrs. Olyphant trapped a male at Lake Olson, Washington County, on 10 Oct., one day later than the latest date listed by Roberts.

Myrtle Warbler: Last report was from Miss Mathilda Henkel on 8 Nov. in Goodhue County. Roberts lists only two November dates.

Ovenbird: Last report was 1 Oct. near Windom, Cottonwood County by Avifaunal Club members. Roberts lists only two October dates.

Connecticut Warbler: One was seen at Duluth by R. Janssen on 9 Sep.

American Redstart: Jan Green saw one at Duluth on 24 Oct., some 12 days later than the latest date listed by Roberts.

Fringillidae: Thirty-five of 47 species were reported.

Evening Grosbeak: Many reports. First report was 10 Sep., mixed flock of adults and juveniles, at Virginia, St. Louis County, by Vera Barrows. On 14 Sep., Mrs. Micensky reported them in Hibbing, St. Louis County. P. B. Hofslund saw them in Duluth on 11 Sep. In the southern part of the state, many were seen at Lake Calhoun in Minneapolis on 22 Oct. by W. R. Pieper. Dean Honetschlager reports them in Washington County on 26 Oct. Miss Mathilda Henkel reported two at Whitewater State Park on 5 Oct. and six at Wacouta, Good-

hue County on 5 Nov. On 17 Nov., Mrs. Allan saw a small flock at Lake Josephine, Ramsey County. On 12 Nov., Lowry Elliott saw a single bird near the Minnesota-South Dakota border, five miles west of Rosen, Lac Qui Parle County.

Pine Grosbeak: Widespread over the state by late November. First report was 15 Sep. at ibbing, when five were seen by Mrs. Micensky. Seen there again the last four days of October. Jan Green saw them at Duluth on 15 November. Records for southern part of state:

18 Nov., Ramsey County, A. C. Rosenwinkel.

18 Nov., Washington County, Dean Honetschlager.

19 Nov., Ramsey County, Keith and Connie Sherck.

24 Nov., Houston County, near Iowa line, R. Oehlenschlager.

Hoary Redpoll: First seen on 28 Oct. near Virginia, St. Louis County, by Avifaunal Club.

White-winged Crossbill: Small flock seen near Beaver Bay, Lake County, by Avifaunal Club on 28 Oct. One in juvenal plumage.

Lark Bunting: R. Oehlenschlager saw several on the Cass County-Wadena County line, east of Nimrod, on 31 Aug. and 1 Sep.

LeConte's Sparrow: Miss Mathilda Henkel saw nine in Holden Township, Goodhue County on 10 Oct. Several seen at Heron Lake, Jackson County on 1 Oct. by Avifaunal Club. Fresh post-nuptial plumage. One seen at Salt Lake, Lac Qui Parle County on 12 Oct. by R. Janssen and R. Huber. First winter plumage. Another was seen the same day by Brother Theodore near Rothsay, Wilkin County.

Henslow's Sparrow: One seen by H. Huber and W. R. Pieper at Duluth on 2 Sep. A very unusual record, perhaps the first for Duluth.

Sharp-tailed Sparrow: On 1 Oct., Avifaunal Club members saw one at Heron Lake. The bird fed leisurely on the ground at the nearly-dry delta of Okabena Creek.

Harris' Sparrow: A species which slipped through all but unnoticed during spring migration. Most observers

reported them this fall. First and last northern records: 18 Sep. and 14 Oct. at Virginia, St. Louis County, Vera Barrows. Miss Mathilda Henkel reports them in Goodhue County from 8 to 25 Oct. Dean Honetschlager saw them on 3 Oct. in Washington County. In the southern part of the state, the Avifaunal Club saw many on 1 Oct. near Windom, Cottonwood County and Heron Lake. Seen again on 12 Oct. at north end of Lake Traverse.

White-crowned Sparrow: Another species which slipped through almost unnoticed during spring. Reported 21 Oct. at Duluth by P. B. Hofslund. W. R. Pieper saw one near Heron Lake on 1 Oct.

Chestnut-collared Longspur: On 28 Sep., Dr. Breckenridge saw one, either a female or immature, between Felton and Ulen, in Clay County.

Smith's Longspur: One, in buffy fall plumage, seen with 400-500 Lapland Longspurs by W. R. Pieper on 11 Nov., west of Lac Qui Parle reservoir. The birds were feeding in a grassy field and Pieper studied the bird for several minutes. Other members of the Avifaunal Club were studying the flock and saw, on several occasions, buffy birds which displayed junco-like outer tail feathers when alighting. The flock would feed for several minutes, and then, in several small groups, arise and re-settle for more feeding. Hence observations were difficult but far better than usual for longspurs. It was felt that there were at least three Smith's Longspurs in the flock, but with only one positive identification. This bird may be a more common migrant through the western part of our state than records indicate.

SUMMARY: In contrast with the high concentrations of birds in spring migration, fall migration is less intense and more drawn out in duration. The birds moved leisurely through. Due to very mild weather, some extremely late dates were reported, especially for warblers. Due to far-reaching efforts of some observers, coverage of western parts of the state turned up some of the less-commonly-reported species.—3121 Georgia Ave. South, Minneapolis 26, Minn.

THE CANADIAN LAKEHEAD

by

A. E. Allin

Like the months which preceded it, July had a mean temperature slightly above normal. Precipitation of 4.84 inches was the greatest since 1937 and contrasted with a normal 2.78 inches. August also had a nearly normal temperature but was the driest since 1933, the 1.69 inches of rainfall being scarcely half the normal 3.53 inches. September was a warm month; the temperature of 53.5 degrees was less than a degree above average. The precipitation of 6.13 inches greatly exceeded the normal 3.32 inches. The first frost was on September 16, when the temperature fell to 32 degrees. On September 29 we experienced a low of 25 degrees and Nasturtiums and Dahlias were blackened. The seeds of the White Birch commenced falling in mid-September. With the blustery weather of late September the Black Ash and the White Birch began to lose their leaves, but when we left for our annual vacation on October 3, there were few indications that summer was over.

With few exceptions, the crops of seeds, cones and fruit are much smaller than they were in 1960. There was a very heavy seed crop on the White Birch providing food on August 23 and 24 for large flocks of migrating Chipping Sparrows and throughout September for great numbers of Pine Siskins. By the end of October most of these seeds had fallen from the trees as had many of the samaras of the Black Ash. The crop of keys on the Manitoba Maples is spectacular. Few Evening Grosbeaks were seen in September; in southern Ontario they were very common in early October. The fruit crop on the Mountain Ash is very poor. Starlings commenced feeding on the few berries present in mid-September and soon stripped the trees of their fruit. Pine Grosbeaks and Bohemian Waxwings will be forced to turn to secondary food sources and both may be scarce this winter. There is a very

heavy crop of fruit, however, on the ornamental apple trees which will provide some food for these two species.

The local harbor is attracting increasing numbers of ducks. No shooting is allowed in the area, and in addition to natural food, great quantities of grain are available. The common ducks are Common Goldeneyes, Black Ducks, Mallards, Pintails, and Blue-winged Teal. All these species breed regularly and in mid-summer loafing males were joined by the females and their young. A few Ring-necked Ducks and American Widgeon were also present. On September 30, all the above species were present as well as an occasional Hooded Merganser and Green-winged Teal.

As usual our hawk migration was poor. Duck hunters at Hurkett reported a heavy movement of Broad-winged Hawks on September 15. We saw a Peregrine Falcon on September 23. There have been several reports of these birds in southern Ontario. In view of these records and the flight through Duluth on September 17, one might suspect they had had an unusually good breeding season. We saw a Pigeon Hawk in Fort William on September 26 and 30. This is a common hawk at the Lakehead. Why are relatively few seen at Duluth? Mrs. Peruniak reported three occupied nests of the Bald Eagle near Atikokan. A pair nested near Lake Weikwabinanaw. We saw a sub-adult at Arrow Lake on August 20.

In view of the very mild fall with leaves persisting on trees and shrubs, it is difficult to assess the grouse population. We suspect however, that it is down from 1960. Many late broods were reported in July and by mid-September many Ruffed Grouse were only half-grown. We have no information on the status of Spruce Grouse. To date there is no evidence that there is any mass movement of Sharp-tailed Grouse from the north

as had been predicted by conservation officers. The Virginia Rail is a visitor or possibly a rare summer resident. We saw one at Whitefish Lake on July 27.

In previous columns we have referred to the increasing numbers of Ring-billed Gulls seen here in Spring. The late Col. L. S. Dear once recognized an immature Ring-billed off the north shore and we once saw one on Lake Nipigon, but to date no nests have been found locally. We saw a young Ring-billed Gull on Arrow Lake on August 20 and another on the Neebing River on September 4. Several were present on fields west of Fort William on September 19. D. Story reported a Bonaparte's Gull south of the Lakehead on September 21. Although the area is remote from the Canadian Lakehead, C. E. Garton's report of hundreds of Franklin's Gulls on Lake of the Woods on July 8 is of interest. The colony of Black Terns discovered on Whitefish Lake on July 1 was revisited on July 27. Both young and adults were identified. This is an addition to local breeding records. The birds were still present on August 3 when they appeared to be feeding entirely on insects. Previously we had had some experience with Black Tern colonies on Lake Ontario where the Alewife seemed to provide much of their food.

The summer of 1961 produced few interesting records except the colony of breeding Black Terns. We saw a female Black-backed Three-toed Woodpecker on September 23. Common Night hawks and Chimney Swifts were last seen and heard on August 24. Gray Jays seemed unusually scarce. Common Ravens undoubtedly are increasing as summer residents in areas adjacent to the Lakehead. Unfortunately Starlings continue to increase throughout the region and great flocks were present in late summer. The Common Grackle appears to be increasing as a breeding species within the limits of Fort William. We usually find the Lincoln's Sparrow an uncommon summer resident, but we heard two males on July 6 and two in a second area on July 19. In a third area we saw an agitated adult carrying nesting material on July 23.

The early fall migration was generally outstanding. However the movement of shore birds was poor except for American Golden Plovers, Killdeer and Common Snipe. The first migrant noted was a Least Sandpiper at Grand Marais on July 16. Locally, a Solitary Sandpiper was seen on August 19. Lake Superior is high and mud flats are absent. Low fields were dry until aided by the heavy rains of September. K. Denis reported 1000 American Golden Plovers on September 19 and small flocks remained until early October. Denis also saw 200 Killdeer on September 19 and we saw 35 in one field on September 19 and we saw 35 in one field on September 23. Common Snipe appeared in greater numbers than usual about October.

On August 1, following a heavy rain, there was a marked movement in Fort William of Black-throated Green, Cape May, Tennessee, and Palm Warblers. A few Red-eyed Vireos were also present. A minor movement of warblers was seen at Loon Lake on August 26. Chipping Sparrows appeared in numbers on August 22.

Several waves of migrating warblers were noted during September. A fairly marked movement on September 2 included Black-throated Green, Tennessee and Cape May Warblers. On September 18, Red-breasted Nuthatches were seen in a mixed flock of Myrtle and Tennessee Warblers. The weather turned cooler on September 23. The first Rusty Blackbirds appeared. We noted the first wave of migrating Robins. Slate-colored Juncos appeared and we saw the occasional White-throated, White-crowned and Tree Sparrows. On the same day Yellow-shafted Flickers were migrating in small numbers. Although they usually appear earlier in September, we saw our first Lapland Longspurs on September 30.

October 1 was a cold, damp and cloudy day. Possibly we saw more birds during the afternoon than we have seen on a previous fall day. The White Birches were filled with great flocks of Pine Siskins, accompanied by a few Myrtle Warblers and the occasional late Palm Warbler. The first

Harris's Sparrow and a few Tree, Swamp, and Song Sparrows mingled with a great flock of Lapland Longspurs. A flock of Rusty Blackbirds was present at the Empire Elevator. Pure flocks of Slate-colored Juncos and other flocks where these juncos mingled with Robins and White-throated Sparrows were common along the roadsides. A great flock of Common Crows was present in one field; the occasional Common Raven soared overhead.

On October 3 we left on our annual vacation taking the Lake Superior Route to Wawa, Sault Ste. Marie and on to southern Ontario. In the future many of our readers will take the same trip. Before doing so they should give consideration to the time they make it. Even early October is too late. From the Lakehead, 300 miles to Wawa, the scenery is magnificent, but the browns and yellows of White Birch and Aspen Poplar lent little to the fall pageant. From Wawa to Sault Ste. Marie, some 135 miles to the south and east, the color was more brilliant as Sugar Maples tended to replace the other deciduous trees as we entered the Lake Superior Forest zone. The only animal seen was a Western Chipmunk. About 35 Common Ravens were seen along the route. Common Crows were conspicuous by their absence except at the Lakehead, and as we approached Sault Ste. Marie, only two Blue Jays and two Gray Jays were seen. There were numerous small flocks of migrating birds. Generally these were Horned Larks and Lapland Longspurs, the latter becoming the predominant species in the eastern part of the trip. A few Water Pipits were also recognized. As we approached Batchewana, we saw our first Rusty Blackbirds, House Sparrows and Starlings. Ring-billed Gulls appeared along Superior's shore. A Horned Grebe was also seen but scarcely a duck was noted in the entire trip despite the hundreds of lakes along the route. We recognized individual Sparrow, Rough-legged, and Red-tailed Hawks. Except for the region between Duluth and the Lakehead, we believe bird students should

make this trip between May 24 and mid-September.

On May 27, the Thunder Bay Field Naturalists' Club held its spring Field Day at Sibley Provincial Park. The highlight of the trip was our capture of a butterfly, the Large Marble (*Euchloe ausonides*). Two more were taken at the Lakehead in early June. These butterflies belong to the race *mayi* described in 1940 on the basis of holotypes taken in Riding Mountain Park, Manitoba, in 1933. The Large Marble has also been taken at Beardmore, Thunder Bay District, Malachi in Kenora District and Basswood Lake in Quetico Park, Rainy River District. It was not listed by Macy and Shephard for Minnesota in "*Butterflies*." Possibly it has been confused with the Olympian Marble (*E. olympia*) which these authors included among the butterflies of that State. Minnesotan lepidopterists should look for the Large Marble in the northern tier of counties.

On July 16, Dorothy and I visited Nannabijou Lodge at the mouth of the Devil's Track River, Cook County, Minnesota. The proprietress showed us an 18 inch adult Sea Lamprey, "one of six or seven found that afternoon in the river." We subsequently learned from the Great Lakes Fishery Commission that Sea Lamprey nests (redds) in the Devil's Track and Arrowhead Rivers had been found containing viable eggs and newly hatched larvae. These findings will be followed up, as in the past the larvae of the Sea Lamprey had only been found in the Pigeon and Split Rock Rivers. Both were treated chemically in 1960. The Sea Lamprey apparently demands a very narrow critical temperature range for successful spawning. Possibly such conditions existed in 1961.

Canadian naturalists mourn the death of A. G. Lawrence who died in Winnipeg on August 25. Born in Cardiff, Wales, 73 years ago, Lawrence moved to Winnipeg in 1910. A decade later he wrote his first "Chickadee Notes" column for the Winnipeg Free Press. He continued to write the column, the oldest of its kind in Canada, for 34 years. Following a serious

illness six years ago, it was taken over by H. Mossop, whose obituary of Lawrence was "Chickadee Notes" number 2102. During most of this period it appeared in the same space on the editorial page of the paper. When an attempt was made to delete it or even move it to a new space during World War Two, there was such a protest it was returned to its regu-

lar place. Lawrence was an outstanding general naturalist, as well as being an outstanding nature photographer and author. As an amateur geologist, he discovered a new fossil—Belemnite, which now bears his name.

—*Regional Laboratory, Ontario Department of Health, Fort William, Ontario.*

NOTES OF INTEREST

"FURTHER NOTES ON BLUEBIRD HOUSING AT KASSON, MINNESOTA"—The Eastern Bluebird housing project that was begun at Kasson in the spring of 1957 by Wm. H. Longley and the writer and reported on in *THE FLICKER* (XXXI, 33, 34) has had further interesting developments during the years 1959-'61.

While the total number of houses has remained about the same, their locations has varied a bit, as some of the houses were moved out of locations where, in previous years, they seemed to be unproductive. During the years 1960 and 1961 a group of twelve houses located southeast of Kasson produced only one brood of House Wrens in the two years.

A look at the accompanying chart will show that many House Wrens were raised in this housing project in 1959 and that the total number has decreased each year since. The decrease has not been due to the relocation of the houses as House Wrens were not using those which were relocated.

In comparison the number of nestings of the Eastern Bluebirds has decreased, but the total number of nestling Eastern Bluebirds raised to maturity has increased. One new box added to a group of four, located northeast of Kasson, produced two broods of Eastern Bluebirds this year, totaling six birds (5 and 1). Across the road from this group is a single box, which has produced one or two broods each year since the project was established in 1957. This has held true even though the original box had to be replaced in the spring because it was destroyed over the winter. This year this particular box, No. 21, had three broods of Eastern Bluebirds. The first brood of five birds were banded on May 25th; five more birds were banded on July 16th, an the third brood, consisting of three birds, was banded on August 22nd. This is the latest that I have ever banded nestling Eastern Bluebirds. In 1958 the last brood was banded on July 25th; on July 15th in 1959; July 14th in 1960.

The prize nesting during 1961 was that of a pair of Black-capped Chickadees. Previously the box had housed only House Wrens. On May 25th the box contained a nest of moss, hair and some grass. I thought it was a mouse' nest, but it had an indentation in the corner of the box which made it look like some kind of a bird nest. On June 2nd the box was checked again and the adult Black-capped Chickadee was incubating six eggs. Five nestings were banded on June 24th and there was one addled egg. The adult found on the nest on June 2nd was also banded. Later a House Wren built a nest there but no eggs were laid.

While most of the House Wrens bring off five or six young from each nesting, during the summer of 1961 five nests produced seven young each.

This particular project has not been very successful in attracting Tree Swallows, even though most of the boxes are within 100 yards or less of a flowing stream. In 1958 three adults were trapped in the boxes and banded and in addition seven nestlings (5 and 2) were banded from two boxes. In 1959 one Tree Swallow returned to one of the boxes in the project that was 2½ miles southwest of where it originally nested. Two nestings of the Tree Swallow were noted in the project in 1959 and both were unsuccessful.

In the chart listed below the number of nestings by the Eastern Bluebirds and House Wrens does not indicate that that many boxes were used as some of the nestings were in boxes previously used in any given year.

	1959	1960	1961
Total boxes in project	45	44	43
Eastern Bluebird nests	20	10	8
Eastern Bluebirds banded from project boxes	33	25	38
House Wren nests	21	17	10
House Wrens banded from project boxes	109	73	52
Black-capped Chickadee nests .....	..	..	1

House Sparrow nests	4	2	2
Tree Swallow nests	2	..	..
Empty houses not used	12	21	30

—*Forest V. Strnad, Kasson, Minnesota*

AN OBSERVATION OF LOONS ON MILLE LACS LAKE — On Tuesday, October 3, 1961, the writer observed a flock of 82 Common Loons (*Gavia immer*) on Wigwam Bay in Mille Lacs Lake. This group of birds was observed at approximately 2:00 p.m. on a clear, windless, day. The observation lasted for somewhat over 15 minutes.

During the first few minutes of observation, the birds apparently were feeding as approximately one-half of them were under the water. Then all birds surfaced for a few minutes and swam parallel to the shore almost in single file in a line estimated to be about 300 feet long. After swimming in this fashion for a distance of 50-100 yards they resumed their diving.

Although the birds were a good distance from shore (estimated 300 yards) positive identification was made with a pair of 7 x 50 binoculars. Many of the birds were viewed individually when they "stood" on the water stretching and flapping wings. Approximately 50 of the birds failed to have the striking plumage of adult Common Loons in the summer time. It is assumed that these birds were young of the year or birds going into winter plumage.

A second flock of birds was observed in the next bay south of Wigwam Bay on Mille Lacs Lake. These birds also appeared to be Common Loons, approximately 40 in number. However, no positive identification or count could be made due to the long distance from the observer.—*Richard D. Wettersten, Minnesota Division of Game and Fish, Section of Game, St. Paul, Minnesota.*

HOW MUCH DOES WEATHER AFFECT MIGRATION?— I have been interested in migration movements as indicated by banding results. For a number of years I have operated three water traps in the same area, all within about three rods. Fall operations seem the most useful as the numbers of birds are larger and movement is slower.

In 1961 the traps were set August 16 and a good run of warblers came through until September 2. However the numbers are smaller than one would like for study. There seemed a slight peak August 18-20 followed by a drop August 21-24. Four Canada Warblers were banded August 22 and three Yellow on August 20 which more or less fill the gap. The largest totals were Wilson's (26), Canada (13), and American Redstart (11). No Wilson's, which are in the majority, were taken August 20-25.

Except for the Yellow and one Yellowthroat, all would definitely be transients. Dates for the other species are: Black and white, Aug. 19, 22, 29, 31, Sept. 11, 30 (7); Tennessee, Aug. 19, Sept. 2, 16 (4); Magnolia, Aug. 31 (2); Chestnut-sided, Aug. 19, 26 (2); Cape May, Aug. 26 (1); Ovenbird, Aug. 19, 23, Sept. 6, 11, 16 (6); Connecticut, Aug. 20, 24, Sept. 2, 8 (5); Mourning, Sept. 2 (1). Species arriving later are omitted.

Catbirds have always been interesting. In the same period, 35 were banded. They were rather evenly distributed except for a gap Aug. 29-31 and a remarkable peak of 11 on September 6. Further, three Catbirds, banded Sept. 1 and 3, repeated that day and the largest total of all birds banded (25) occurred on that day. There seemed little in the weather to account for such results. In general it had been warm and dry. A pronounced cold wave occurred September 3, dropping the temperature from 90 to 42 degrees with a strong wind. There was a little rain September 5. The next day began cloudy but cleared. Again on September 7 light rain fell in the forenoon but there was little change in the temperature and the barometer remained steady. No pronounced change occurred until September 9 when a thunderstorm in the night was followed by a cold wave and more rain in the next afternoon.

I have felt that we over-emphasize the "waves" of migration. Certainly these do occur but probably the most of migration is gradual. The dates of departure are equally if not more important than those of arrival. I discussed these in more detail in the *Wilson Bulletin* for December, 1957. There are at least three kinds of "waves"—arrival, departure and transient; that is, the observer may be at the terminus of the movement, at the beginning, or in the middle. One thing that I have noticed repeatedly is a pronounced departure of birds in the fall at the end of a cool period rather than at the beginning.

October 3-5, 1961 was a period of warm, pleasant weather following a couple weeks of unusually cool weather. On October 3 and 4 many birds were around, mainly Slate-colored Juncos and *Zonotrichia*. On October 5 the numbers were much reduced but the only difference in weather was that it was a little warmer and the south wind a bit stronger. Another item to consider is that such observations may show only local shifts.

Probably not all species follow the same patterns. Water birds seem to attract the most attention by their large numbers and perhaps they are more closely attuned to weather conditions. My feeling has been that Robins, in most part, show a continual movement.—*O. A. Stevens, Fargo, North Dakota.*

SWAINSON'S THRUSH IN IMMATURE PLUMAGE—On September 8 I banded a bird that showed considerable traces of immature plumage in the form of tan streaks on top of the head and on wing coverts. It seemed in poor flesh so that internal parasites were suspected. I do not recall such a specimen in 30 years while banding a total of 682 thrushes (139 Hermit, 404 Swainson's, 118 Gray-cheeked, 21 Veery). No records of returns or recoveries of any of these have been received.—*O. A. Stevens, Fargo, North Dakota.*

SANDHILL CRANES—Early in May, 1961, on about May 5, a lone Sandhill Crane was sighted about three miles northeast of McGregor, Minnesota, by warden James Marcum. This lone bird flew almost directly over Warden Marcum's home. It came from the northwest, calling rather continuously. Warden Marcum believed at that time that it was headed for a dry lake bed and prairie-like area about a mile southeast of his home. There is no other record of this lone bird.

This dry lake bed is a proposed restoration area as wetlands by the Section of Game. About the middle of July, a dragline moved into the area to begin work. On July 20, 1961, the two-man crew with the dragline had to walk out to the work site, about two miles. On that morn they heard *two groups* of Sandhill Cranes calling on the north side of the dry lake bed. These men are Emil Taie and Charles Bartch. They have worked on state projects at Roseau and other places in northwestern Minnesota, and are familiar with the call of the birds. I have checked this area every two or three days since this, but have been unable to either hear or sight these birds to verify their presence. I believe the above records are valid records of Sandhill Cranes in this vicinity. The description of the Grayling Marsh is: Sections 9, 10, 11, T.48 N., R. 23 W., Aitkin County, Minnesota.—*LeRoy Angell, Area Game Manager, 1015 Wilson Avenue, Cloquet, Minnesota.*

DULUTH, SEPTEMBER 16, 1961—By the time my wife Betty, our three sons and I arrived at the observation post high on Skyline Parkway overlooking northeastern Duluth to count hawks it was a bright, warm, breezy day. Earlier that morning, still air and fog had kept the birds low, but by noon they were borne high in the air as they passed above our heads. Twenty thousand hawks had been sighted Friday; five hundred by Saturday noon. We could have stayed on all day gazing expectantly over the meadows and hills to the north, exulting in each hawk's passage, but the hope of seeing some of the rare big shorebirds sent us down the hill to investigate the shoreline of Minnesota Point.

Our eight-year-old was immediately charmed by seeing how close he could get to a big Black-bellied Plover before it would fly.

I think we all put up our glasses about the same moment to watch three large birds flying over the lee side of the point. Who ever expects to see Long-tailed Jaegers? But that's what we saw in ideal light at about 100 yards with 7x binoculars.

They were adult birds with long enough tail feathers to give the impression of big Common Terns slightly smaller than any of the gulls in the air with them. Two veered off to cross the point in shore of us, but one paraded past us for about a half minute of excellent viewing. He was dark gray above; from below the white breast and throat contrasted sharply with the black cap, black wings, and tail. Beating into the wind, his tail was not spread, but showed the to elongated central tail feathers separated slightly. We did not observe the white primary shafts. I did see the yellow marking on the side of the head. We got Peterson's *Field Guide* opened to page 7, and Betty pointed to the long-tailed bird and said, "They looked exactly like this."

As if to answer our possible cautious uncertainty, a few minutes later Doug Jr., pointed with a "What's that one?" above the lake side beach to where, about 200 yards east, a brown-gray chunkier bird was attacking a gull. As it hovered to claw the gull it fanned its tail, and showed the elongated central tail feathers typical of the Parasitic Jaeger, three or four inches long, pointed and triangular, not spade-shaped and twisted. We knew what we were supposed to look for on this bird. This Parasitic Jaeger was much less graceful-looking than the Long-tailed Jaeger, and showed a heavier head and bill (much as a Common Raven compared to a Common Crow). It was about the same size as the gull it was attacking.

I have since then looked at the jaeger skins in the University of Minnesota's collections, and feel confirmed in both identifications, and feel thankful that both birds observed all were adults typical of their species.

We didn't find it anticlimactic to see also on Minnesota Point, Palm and Pine Warblers, hordes of unidentifiable sparrows, a Gray Jay and three Pigeon Hawks. *Douglas Campbell, 4917 Russell Avenue South, Minneapolis, Minnesota.*

BOOK REVIEWS

Bird Songs in Your Garden by Arthur A. Allen and Peter Paul Kellogg, published by Cornell University Records, Ithaca, New York, \$5.95.

This album consists of one ten inch 33 1/3 rpm. Vinylite record and illustrations of the 25 species covered on the record. The narrator of the record identifies the species on one side of the record and side two is devoted entirely to the bird songs. The order of songs is very interesting in that they are listed from the earliest rising bird to the last of the evening. All 25 species treated are illustrated with 53 photographs. Of the photographs, 31 are in color, which considerably enhance the text.

The text of 24 pages includes sections on feeding, drinking and bathing, planting to attract birds, bird houses, and reference for gardeners.

This record-book combination is especially useful to those just starting a hobby of bird watching, and also for the many people who are the stay-at-home type of bird watcher. The recorded bird songs will give the reader the added pleasure for enjoying the birds that occur in our gardens. The album is highly recommended as a gift for the beginning bird watcher.

Editor

Wisconsin's Favorite Bird Haunts compiled and edited by Samuel D. Robbins, Jr. Published by The Wisconsin Society for Ornithology, Inc., Madison, Wisconsin, 1961, 77 pp. \$1.75.

Wisconsin now joins Minnesota in having a detailed guide to the best birding areas of their state. Wisconsin's guide has an advantage over "Where to Find Birds in Minnesota," in that a map is drawn of each of the 30 areas listed, and these maps are broken down into separate sections. Each section is explained in the text giving details of habitat and birds found in these habitats. Directions are given for easy access to each area, and to the sections within the areas.

The only disappointment to be found in this excellent guide is that only 4 areas are listed for the northern half of Wisconsin. This could be due to lack of exploration in this area, but it hardly seems possible that there are no known birding areas in this portion of the state.

"Wisconsin's Favorite Bird Haunts" is indispensable to anyone planning to bird watch in Wisconsin. It is hoped that other states will follow Minnesota and Wisconsin's example of publishing guides such as this at a very reasonable price. The publication of such guides can only help to enhance the wonderful hobby of bird-watching.

The book is available from The Wisconsin Society for Ornithology Supply Department, Harold G. Kinse, Hickory Hill Farm, Loganville, Wisconsin.

Editor

The Bird Watchers Guide by Henry Hills Collins Jr., illustrated by Richard Harker, Golden Press, Inc., 630 Fifth Avenue, New York 20, New York. 1961 128 pp. \$3.95.

In 128 pages, Mr. Collins has included chapters on every phase of bird watching. Even though this book is primarily for the use of the beginning bird watcher, the veteran will find this book very useful.

One of the most useful parts of this book is the chapter titled Bird Clubs. Here you will find all of the major bird clubs listed for the United States, Canada, and abroad. The chapter on Conservation is most interesting, and should spur bird watching groups to more activity in this field. The author lists what individuals can do to further the cause of conservation. This is a most refreshing aspect of this book, and should help to arouse the interest in conservation by the beginner.

Other chapters in this book deal with Bird Banding, Cover for Birds, Photographing Birds, When and Where to See Birds, Equipment for Bird Watching, Bird Trips, Bird Lists, Bird Censuses, Bird Houses,

Bird Baths, and Attracting Birds about your Home.

It can be seen from the above chapter listings that there is good reading and information on all phases of the fascinating hobby of bird watching.

Editor

A Colored Key to the Wildfowl of the World by Peter Scott. Published by Charles Scribner's Sons, 597 Fifth Avenue, New York 17, New York. 1961, 91 pp. \$3.50.

This book is a revision of the first edition, which first appeared with black and white plates in 1950 and the colored version published in 1957. Mr. Scott in 91 pp., and by the use of 23 colored plates has attempted to provide a guide for the identification of the 147 species and 100 subspecies of wildfowl found in the world.

This book provides the person interested in birds and particular wildfowl a very convenient place to view the appearance of ducks of the world. However, there are many drawbacks to this book, which makes it difficult to use, and of little value to the general bird student or the professional. The text contains a Key of 20 pages which divides waterfowl identification into eight categories. The first, size, has little use, because terms such as very large, large, rather large, very small, small, and medium are not related to any exact measurement. However, the remaining seven categories concerning shape, bill shape, color,

bill color, voice and behavior provide a useful general guide to identification. The remaining five pages of text contain interesting information on names and classification.

The following pages of the book contain the colored plates and one explanation page preceding each plate. The illustrating of subspecies without text on the explanation of plumage differences does not help the bird watcher to identify subspecies. An example is page 12, which illustrates in color the Atlantic and Prairie Blue-winged Teal. It is not possible to see any difference between the two drawings of the Blue-winged Teal. Most professionals tell the amateur to shy away from field identification of subspecies. It would appear that Mr. Scott is attempting by his illustrations to tell us that field identifications are possible.

If this book is used as a guide to the appearance of the world's waterfowl in their breeding plumage and the subspecies are ignored, the bird-watcher will find this book useful and interesting. However, for the bird-watcher it is difficult to tell the species from the subspecies. Each subspecies is given a common name, some of doubtful derivation, and the latin trinomial must be studied carefully. From the professional's viewpoint, the book would have to contain detailed explanation of plumages to be of value.

Editor

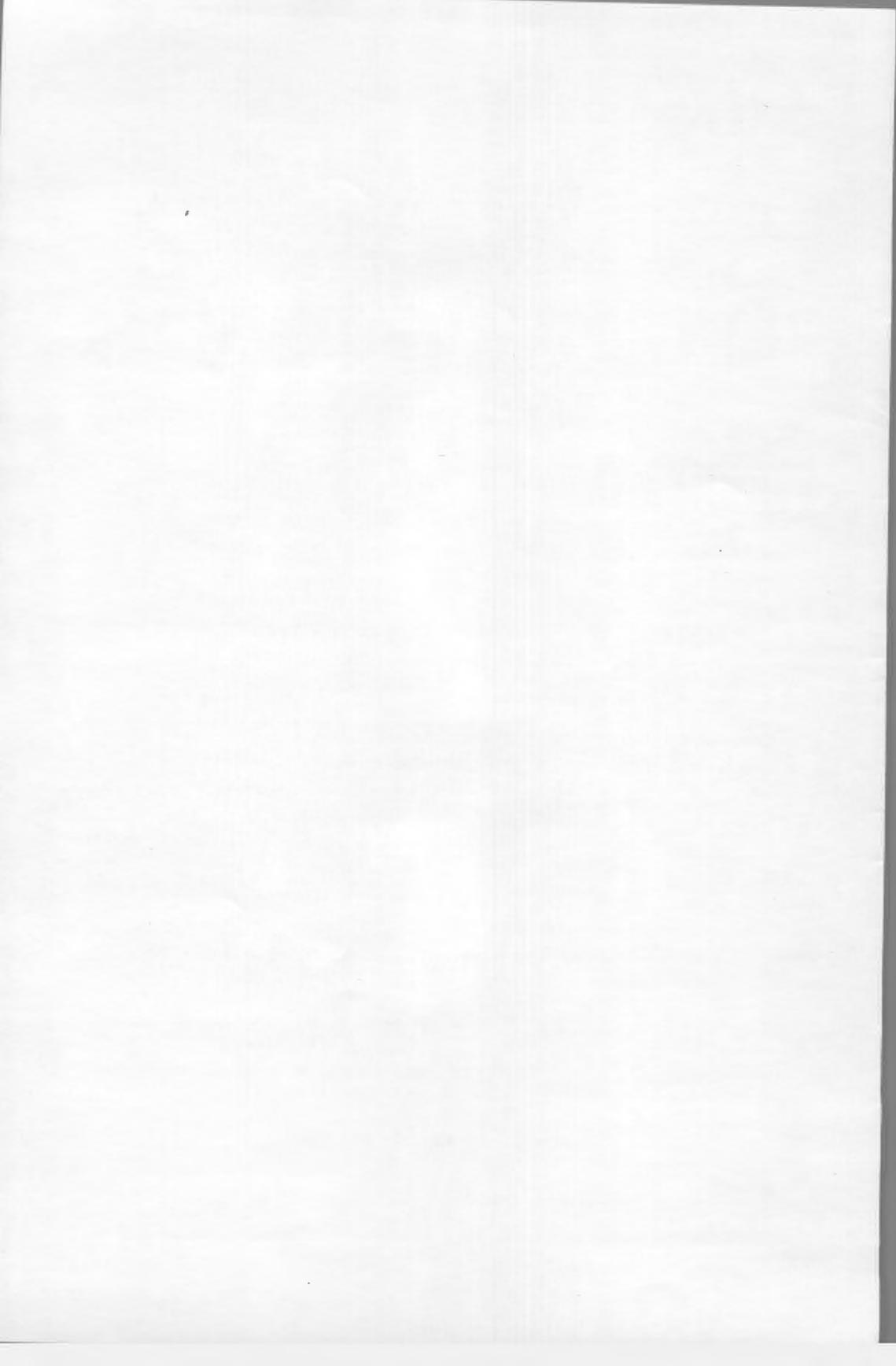
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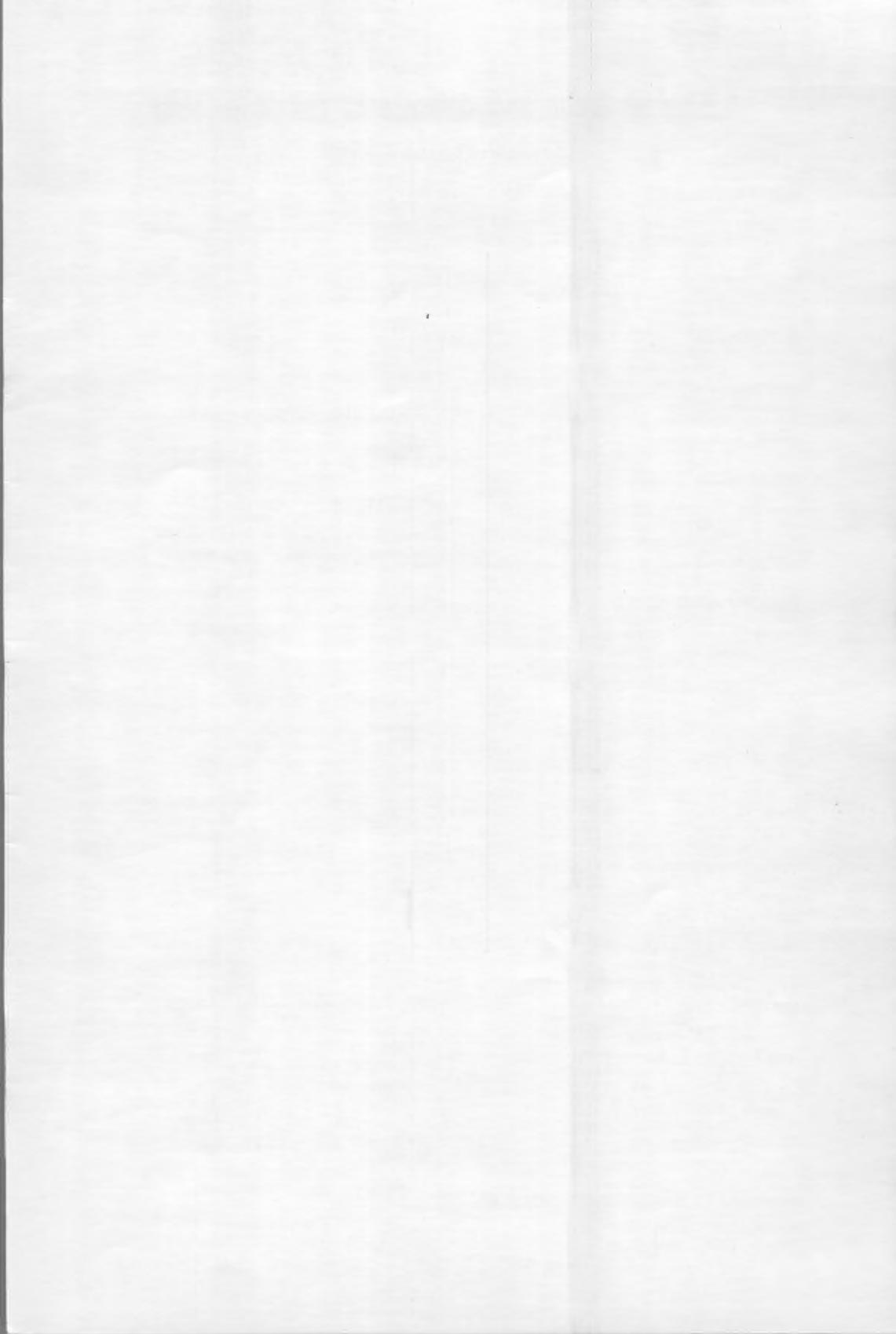
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