# The Flicker

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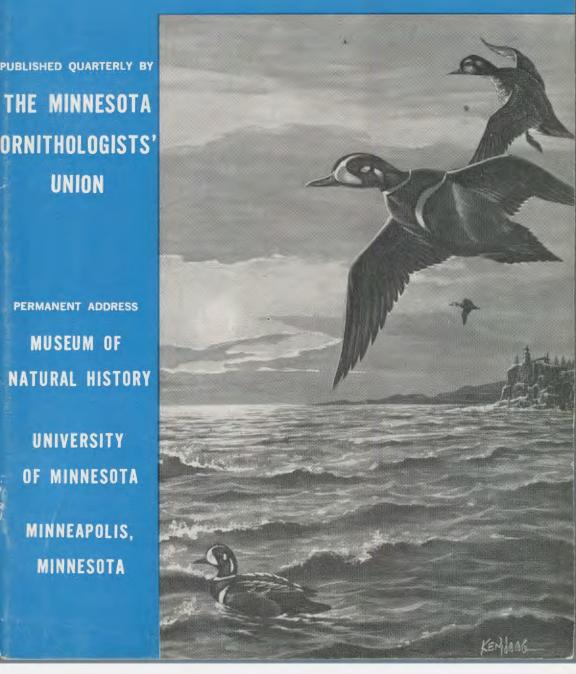
THE MINNESOTA ORNITHOLOGISTS' UNION

PERMANENT ADDRESS

MUSEUM OF NATURAL HISTORY

UNIVERSITY OF MINNESOTA

MINNEAPOLIS. MINNESOTA



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# THE FLICKER

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### FRONT COVER

Painting of the Harlequin Duck on the North Shore of Lake Superior, Minnesota. Painting by Ken Haag.

# Dedication

This issue of The Flicker is dedicated to the memory of Ernie D. Swedenborg. We are especially proud to dedicate this issue to Ernie because of the large part he played in organizing the Minnesota Bird Club, the forerunner of the Minnesota Ornithologist's Union. His love of birds, his intensive study and record keeping played a large part in Dr. Roberts "Birds of Minnesota." Ernie's help and inspiration gave The Flicker its start back in 1929. From modest beginnings The Flicker has progressed through the years into a prominent state publication because of people like Ernie Swedenborg. 1963 is the 25th anniversary of the formation of the Minnesota Ornithologist's Union and we hope that bird-watchers in the state of Minnesota will gain inspiration from Ernie's experiences as summarized by Mrs. Swedenborg and Gustav Swanson on the following pages. May we all gain as much from our hobby as did Ernie Swedenborg.

# THE PRESIDENT'S PAGE

There are two kinds of snobs in the ornithological world: the professional who despises the "bird lover" and the amateur who refuses to rise above his bird watcher status. Each has his point, but both are wrong. An organization such as the Minnesota Ornithologist's Union, if it is to progress, must make

an attempt to lessen the snobbishness of these two groups.

The professional is deeply and wholeheartedly concerned with increasing the academic knowledge of ornithology, believing not only that we should know more about the things that we encounter in nature, but that when we find out the ways and wherefores, we are making important strides toward bettering the human race. He feels that the amateur with his obvious inaccuracies and anthropomorphic approach makes his profession ridiculous in the eyes of the world, and consequently he refuses to take part in amateur activities, or approaches them with a condescending and patronizing manner. He forgets that he, too, was once an amateur making just as many mistakes, and that it was a professional who straightened out the path. He writes only for the profession in the stilted, often boring, manner so common in modern scientific journals. He has become a slave to journal editors and reviewers, who are on the lookout for opportunities to show their superior knowledge or to shorten the article so that it will fit into the financial structure of the organization doing the publishing. He forgets that accurate information can be presented in an interesting manner. Yet, he has plenty of examples to follow. "The Hatching Muscle of a Chick" certainly sounds like a subject only enjoyable to an anatomist or an embryologist, but anyone hearing Dr. Harvey Fisher of Southern Illinois University talk on this research could not help but be intrigued. I suspect also that the professional ornithologist never loses the joy of bird listing, the first and chief pastime of the amateur bird watcher.

Our other ornithological snob is the amateur who decries any effort to make him rise above the level of the Junior Audubon Society. He feels that he should be entertained and that information should be doled out in a manner which allows a painless osmosis to take place, neither requiring thinking or action. Having neither read nor studied anything above the level of Jenny Wren, he is affronted when an editor questions his identification of the Ivory-billed Woodpecker at the feeder in his back yard in Northern Minnesota. He fails to realize that in doing nothing more for his hobby than to passively enjoy it, he fails not only in improving himself, but also in gaining greater enjoyment. A player who never progresses above "Old Maid" seldom finds enough of a reward in card playing to continue it as a hobby.

There seems little one can do about the professional snob except to point out that ornithology on an amateur basis for Larry Walkinshaw, Margaret Nice and Val Nolin was parlayed to the point where they became authorities, sought and looked up to by the professionals.

To the amateur we can offer guidance—guidance leading not only to increased knowledge, but to a greater enjoyment of birds as a hobby.

To further this latter objective, the policy committee of the Minnesota Ornithologist's Union at the meeting at Grand Marais suggested these ideas:

1. A guide to the literature of ornithology, suggesting a basic library

- by which a beginner could advance through reading to where he could handle more technical aspects of his hobby.
- A descriptive series by advanced amateurs and professionals on particular aspects of their hobby.
- 3. A guide to the planning of advanced projects for the amateur.
- The establishment of an advisory committee available to any member of the M.O.U. for help in this hobby.

Sincerely, P. B. Hofslund President

# 1963 M.O.U. SPRING MEETING

Winona, Minnesota May 18-19

The Hiawatha Valley Bird Club of Winona and the city of Winona bid you a hearty welcome and good "birding."

Our headquarters for the weekend will be the Izaak Walton League cabin on Prairie Island. There is a Free Campground on Prairie Island next to the Izaak Walton League cabin. (Follow the signs to the Free Campground...you can't miss the cabin.) The campground has open and shaded areas—pump water, toilets, tables, shelters, fireplaces, firewood, shore fishing and boat launching. Supervised. For those of you who would like hotel or motel accommodations we have the following: Hotel Winona, Williams Hotel, El Rancho Motel, Westgate Motel, West End Motor Court, and the Acorn Motel. Please make your own reservations.

You will find the following areas indicated on your maps that you will receive at the registration desk. Local members will be available to serve as guides.

Prairie Island Park. West from the Ike's cabin and Deer Park around the Dog Club quonset building and on west along the dike road past the Minnesota City Boat Club Harbor. Warblers and marsh birds. Boat trips may be arranged for a few small groups into the Winona Pool area from the Boat Club Harbor.

Knopp's Valley. Off Highway 14 opposite St. Mary's College. Warbler's, Scarlet Tanagers, Thrushes, Grosbeaks, Indigo Buntings, Bell's Vireo, Pileated Woodpecker, Ruffed Grouse and Henslow's Sparrow. A place to take a box lunch and spend the day.

Agaghming Park. Cross the high bridge from downtown Winona and turn off right for the bathing beach; and then cross the old bridge across bath house slough and the area on your right is it. Warblers, Flycatchers, Rails, shorebirds, and Prothonotary Warblers.

La Crescent. Yellow-crowned Night Heron. 28 miles south from Winona.

Reno Bottoms. One of the wilder and more remote spots. This is 45 miles south from Winona. Acadian Flycatcher area.

The U.S. Fish and Wildlife Service is arranging a rookery visit by boat. Area not definite as yet.

Woodlawn Cemetery. Scarlet Tanagers, Warblers, Flycatchers and Phoebe. Sugar Loaf, East and West Burns Valley: Yellow-headed Blackbirds, Woodpeckers, Cuckoos, Bluebirds, Cardinals, Chickadee, and Indigo Buntings.

Trempealeau Cemetery, Dickcissel, Catbird, and Grosbeaks.

### SATURDAY, MAY 18

6:00 a.m. Pick up maps and information at Izaak Walton League cabin in Prairie Island Deer Park. (Follow the signs to the Free Camp ground...you can't miss the cabin.) The *Registration Desk* will be open throughout the day Saturday and until one o'clock Sunday.

12:00 Noon. Lunch. Box lunches may be reserved for 7 a.m. both days. Cost \$1.00. 6:30 p.m. Banquet served buffet style at Ike's cabin by the famous Wally's Supper Club. Cost \$2.00 per person.

 $\ensuremath{\textit{PROGRAM}}$  on Wood Duck research by the U.S. Fish and Wildlife Service.  $\ensuremath{\textit{RESERVATIONS}}$ 

Send reservations by May 4, 1963 to:

Sanford S. Tyler 1174 West Broadway Winona, Minnesota



F. P. Swedenborg

# IN MEMORIAM: E. D. SWEDENBORG

1890 - 1962 by Mrs. E. D. Swedenborg and Robert B. Janssen

Ernie D. Swedenborg was born in Minneapolis, May 14, 1890 and though he traveled and observed birds in every state of the continental United States, his home was in Minneapolis until he passed away November 8, 1962 at the age of 72.

He always liked the outdoors and when he was young often took hikes with his older brothers; sometimes walking as far as fifteen miles in one day. They walked starting from Sixth Street and Sixteenth Avenue along the Milwaukee railroad tracks to Fort Snelling across to Mendota and back again or out Cedar Avenue to Nicols where in later years he did a great amount of birding. Although he was not intensely interested in birds at that time, he and his brothers observed all phases of nature.

Long hikes were always a habit and as early as 1919 he started keeping notes of the birds he saw at Lake Harriet, along the Minnehaha Creek, the Minnesota River and at Fort Snelling.

At this time he was working at the main Post Office and often walked home to 2425 Colfax Avenue South by way of Loring Park. His early notebook contains many notes of birds seen there. These records contain: Brown Creeper, Rufous-sided Towhee, Hermit Thrush, Lark and Fox Sparrow, Myrtle Warbler, Spotted Sandpiper and a Catbird nesting. One of his first entries was, "I think I saw two sapsuckers in Loring Park." These notes were kept for his own enjoyment but it was not until 1922 that he was sure enough of his identifications to keep migration records.

At this time there was no book of Minnesota birds, and often he found birds that he could not identify with Dr. Chapman's "Birds East of the Mississippi." He wore out two copies of Dr. Chapman's book.

Ernie went to the Museum of Natural History at the University of Minnesota and was looking over the habitat groups, when he met that wonderful man, Dr. Thomas S. Roberts. Thus began a contact that was to continue until Dr. Robert's death in the spring of 1946.

In 1923, Dr. Roberts presented Ernie's name to the American Ornithologist's Union. He was accepted and remained a member until his death. He joined the Wilson Ornithological Club in 1929 and kept up his membership until his death.

Ernie was an enthusiastic member of the group that founded the Minnesota Bird Club and continued his membership throughout his life.

He was always anxious to get new bird books and had quite an extensive library. His Auks, Wilson Bulletin's and a great many of his bird books were given to the summer session of the University of Minnesota. An ornithological library will be established at Itasca Park in Ernie's memory.

Most everyone has favorite places to bird and Ernie was no exception. One of his favorite places was Roberts' Sanctuary, formerly the Bridle Path and at one time called The Lane. He spent countless hours there. Many times Ernie would walk to and from work thru the sanctuary to watch birds. He often astonished motorists

and neighbors by refusing rides home. In the spring it was hard for him to leave the sanctuary and go other places. After his retirement he was there almost every day when he was in Minneapolis. He listed many birds in the Roberts Sanctuary, including some very unusual ones, as the Hooded, Worm-eating, Black-throated Blue and Blue-winged Warblers, and a Western Tanager. Over the years he listed more than 220 species there, the last being a Golden Eagle in April 1958. These were all seen in the sanctuary, flying over, or on Lake Harriet seen from the sanctuary. The most interesting nest in the sanctuary was that of the Pine Siskin, found in April 1961. Notes taken from one of his best days in the sanctuary are as follows: May 14, 1942. "This was the day of years. Only had a chance to be in the Bridle Path about two hours in the late afternoon (he very reluctantly left the birds to go home for his birthday celebration) and probably saw more birds there than I ever have. Thrushes and warblers were positively abundant. There must have been hundreds, probably a few thousand of them. Saw 23 species of warblers in this short time, the Magnolia being everywhere. Warblers seen included many Black and White, two Goldenwings, quite a few Nashville's, Orangecrowned, scores of Tennessee's, three Parula's, Yellows, a Myrtle, a few Bay-breasted, Chestnut-sided, two many Blackpolls, Blackburnian. a Black-throated Green, Palms, probably a few hundred Ovenbirds, both Waterthrushes, Mourning, many Yellowthroats, a few Wilson's and many Redstarts. All the thrushes, except the Hermit, were there and Veeries were abundant. Flycatchers, except the Wood Pewee were present, including a few Olive-sided. The new arrivals were Alder Flycatchers, two Yellow-billed Cuckoos and three Parula Warblers."

During the late twenties and early thirties he spent several vacations on the Rum River near Onamia, Minnesota. He birded almost every waking hour and had some very wonderful times. Among the most interesting finds was the first nest of the Goldencrowned Kinglet (containing young) found in Minnesota, the first nest of the Black and White Warbler found in Minnesota and a very early-moulting Scarlet Tanager which he thought at first was a tropical bird far from home. His actual notes of the finding of the nest of the Golden-crowned Kinglet are most interesting: July 26, 1928. "In the meadow south of Giddings (on the Rum River not far from Onamia) during the forenoon and added two species, both with young out of the nest, families of Alder Flycatchers and Golden winged Warblers. The young were still being fed. Both were in the wooded section adjoining the meadow. The Alder is probably a common flycatcher in this section but difficult to distinguish from the Least except when it calls or sings. Have only heard it sing once here but it calls rather frequently. Took the Barn Swallow's nest down today and examined it. The lowest section is almost like plaster, a few straws mixed with clay. Then it's lined with grasses and ontop of this chicken feathers. This nest had 66 feathers in it, certainly a comfortable cradle. Made a wonderful discovery this afternoon in the spruce swamp but I bungled the job. This was the nest of a Goldencrowned Kinglet about four feet from the top of a 35 foot spruce. Suspected that there might be a nest there and climbed the tree. Because of the mass of small branches near the top I could not locate the nest though must have been within a foot or two of it. Then made the mistake of sawing down the tree. Then found the nest containing several young birds quite well developed. Sawed the top section off and placed it in an upright position and left it with the hope that the old birds might be able to locate it. A most beautiful pensile nest, made of moss and lined with feathers. July 27. Pleasantly surprised this forenoon when we returned to the spruce swamp. The kinglets have located their nest again and are busy feeding their young, which seem none the worse for their experience. It is a beautiful affair and holds at least nine well developed young birds. As far as we could see the male does not help with the feeding, the female going there three times while we watched, 18, 20, and 13 minutes apart. The male went to the nest twice in the meantime but apparently only to look things over. Ghost plants are very numerous in the swamp this year and we have also located a blueberry patch there. Raspberries are abundant everywhere. Down to the Rum in the afternoon and added two species, A Downy Woodpecker and a Spotted Sandpiper. July 28, 1928. In the spruce swamp this forenoon watching the kinglets. Seems to be feeding more often now, only 4 to 10 minutes apart two times. The female seems to do all the feeding and appears much more concerned about our presence than the male. If we stay about 25 or 30 feet away from the nest neither bird pays any attention to us. The young are covered with a mass of feathers between feedings and entirely hidden from view, crouching down in the nest. No new species today but saw a family of Yellow-throated Vireos. July 29, 1928. Temperature 38 at 4 A.M. Found the kinglets nest empty this forenoon. Believe the young left of their own accord as the nest did not seem to have been very much disturbed. Both the adults were near at hand, one wiping its bill, when we first saw it, as it usually did after feeding the young. Neither one showed much concern at our presence, the male singing his plain little song several times. Though far from being as musical as the Ruby-crowned it is somewhat reminiscent of this song, the first notes having the rising inflection which in the Ruby-crowned reaches perfection. It begins with four or five rather slow. plaintive notes and runs off into a warble."

He also spent several vacations on the Gunflint Trail. The northern woods had a marvelous fascination for Ernie. Perhaps his most thrilling find there was an occupied Brown Creeper's nest which he collected. He also found several nests of the Golden-crowned Kinglet along the trail. June 17, 1930 notes from this area: "A red letter day. Found something I've looked for for quite a while. The nest of a Brown Creeper. It was near the falls of the Brule River and situated about 14 feet up under a loose strip of bark on a dead spruce tree. The tree was almost bare of bark for several feet below the nest, which was made of small strips of bark and pieces of wood and lined with fine inner bark. In it were five well developed young and an unhatched egg. Saw the old birds feeding the young, both birds assisting in the process. Nearby we saw a male Blackthroated Blue Warbler."

Winter birding also held a fascination for Ernie and the Swedenborg's took their first Christmas Bird Count in 1921. Although they saw only six species, they did see 44 Bohemian Waxwings. They took a Christmas Bird Count in Minnesota practically every year until 1953, when Ernie retired. After his retirement they spent the winters in the south (Texas) where they helped take two counts each year. After there were heaters in the cars and it was more comfortable driving they covered more territory and saw more species. Their largest count for Minnesota was 27 species in 1939. Over the years they listed 77 species. Perhaps the most unusual one was the Yellowthroat at the Bass Pond in 1934. Only one time did they give up after they were in the field and that morning the temperature dropped to minus 18. On January 11, 1945 Dr. Roberts wrote to Ernie about his winter birding as quoted below:

Dear Mr. Swedenborg:

What a wonderful time you have had with the birds this winter! Your account reads like an interesting story. I think you have the banner winter record for a similar restricted area. It comes partly of your keeping watch of these and knowing where to find certain species. You must get this written up in story form for The Flicker. Are

you sending it to the Audubon Magazine? The condensed form used there detracts somewhat from the appeal. Anyway, get it into The Flicker for there is where it belongs.

Your fall report also was a fine one, 167 species is an exceptional list. It makes me regret I am no longer in the game,

Thank you very cordially, I am
Very Sincerely,
Thomas S. Roberts

Ernie enjoyed being outdoors and studying birds, and he also throughly enjoyed keeping records. Keeping records in many different ways never seemed to tire him. And such records! His first entry in the log book that he kept almost daily was on September 28, 1919 "Saw an English Sparrow, Chippy, Brown Thrasher, Robin, Blue Jay and Junco in yard".

In the spring of 1922 he started a spring migration record to send to Dr. Roberts, Museum of Natural History, University of Minnesota. He sent these migration records twice a year to the museum until Dr. Robert's death in the spring of 1946 (he kept a copy of each one). Dr. Roberts letter of November 28, 1928 reads as follows:

My dear Mr. Swedenborg:

Your letter of the 26 inst. reporting the pair of Cardinals received. Do not be afraid of my doubting your veracity. When things reach that stage I will cry quits. Mrs. Wyman of Washburn Park reported a few days ago seeing a female Cardinal near her house, probably one of your birds. The Cardinal like the titmouse is becoming more and more frequent. Of late years it is nesting at least as far north as Red Wing and is common enough there so that one observer saw five in a single walk. Before long it will be nesting hereabouts and a permanent resident as it usually is where it breeds.

I am greatly obliged to you for sending us all these interesting bird records. Mr. Kilgore and I have so much

routine work here at the museum that we get out very little these days and were it not for such kind friends as yourself we should know but little of what is going on.

With many thanks, I am
Very Sincerely Yours,
Thomas Roberts
Director Zoological Museum

After Dr. Roberts death Ernie kept these migration records for his own use and pleasure. The last entry was October 8, 1962 of a Canada Goose flying over Roberts Sanctuary.

For years he sent his records to the U.S. Bureau of Biological Survey. He also kept a complete record of each species he saw in Minnesota, showing first spring appearance, nest, young, or any unusual fact about each species. The most difficult part of these records was, of course, the last fall dates. This would sometimes require eight or ten and even occasionally fifteen recordings on the check list he kept for this purpose. Each trip or vacation list was kept separately. He originated a method of keeping a yearly record according to the first appearance of each species. He could tell at a glance whether a spring was advanced or backward by the number of species on his "Order of Appearance."

Ernie kept a record of the birds he saw in and flying over the yard at 4905 Vincent Avenue South from 1921 to 1962. He listed 76 species. The last one added was a Common Redpoll he found at our feeder after coming home from several hours out in the country without seeing one.

In an old American Ornithologists Union check list he kept a record of the different states in which he had seen each species.

Keeping all these records gave him a wonderful knowledge of the distribution of birds. His records were used extensively in Dr. Roberts' Birds of Minnesota, Logbook of Minnesota Bird Life and the booklet Birds of the Minneapolis-St. Paul Region. Acknowledgement of his assistance being made in the inscription of our copy of Birds of Minnesota., "Appreciating very much your kind interest in these books and thanking you cordially for the considerable assistance rendered in collecting the information, I am, Very Sincerely Your Friend, Thos. S. Roberts."

Just adding a bird to his life-list meant very little to Ernie. It was far more important to him to know as many facts as possible about the birds he had already seen.

Ernie was busy looking at birds in his favorite birding area, Roberts Sanctuary until he died. The last entry in his notebook dated October 1, 1962 reads as follows: "First Hermit Thrush and Purple Finch of the season at Harriet." Bibliography of published writings of E. D. Swedenborg

The Christmas Census in Minnesota. Flicker, 1:2, 1929

The 1930 Nesting Season. Flicker, 2:25, 1930

Summer Birds Near Onamia. Flicker, 2:46, 1930

The Golden-crowned Kinglet at Home. Flicker, 5:14, 1933

Ten Years of Winter Birds. Flicker, 9:5, 1937

Summer Birds of Cook County. Flicker, 9:3, 1937

Ten Years of Nesting Records. Flicker, 11:3, 1939

Summer Birds of the Lake Vermillion Region. Flicker, 11:14, 1939

Ten Years of Winter Birds. Flicker, 19: 14, 1947

A Minnesota Pine Siskin's Nest, Flicker, 33:55, 1961

# **REMINISCENCES**

by Gustav A. Swanson

I have frequently felt privately grateful to the many persons who have given me encouragement in my early interest in nature, which developed into my professional work. Before entering the University to study the biological sciences I had already received much sympathetic encouragement and guidance from a number of people. These included my parents, especially my mother who was deeply interested in wild flowers, and birds as well; a third-grade teacher who introduced me to the Junior Audubon Club; a high school science teacher; several mem-

bers of the Minneapolis Audubon Society, but particularly Mr. and Mrs. E. D. Swedenborg; and Dr. Thomas S. Roberts and his associates at the University Museum of Natural History.

Throughout this period I never properly expressed my appreciation to the persons who provided so much inspiration and help, but this opportunity to acknowledge Ernie Swedenborg's assistance to a youngster with a growing interest in birds is one which I am glad to accept, inadequate though it may be.

In addition to being fortunate in having so many adults who were sympathetic enough and who took time enough to encourage a youngster in his interest in birds, I was particularly fortunate that just across the street in Minneapolis lived another youngster with a similar interest in birds, Charles Evans, and for years we were constant companions in our pre-teens and teens while our interest and knowledge in birds was growing. Charles went on to become known for his studies of diseases in animals and man, and is now chairman of the Department of Microbiology of the University of Washington Medical College at Seattle.

Although I cannot exactly place the date, I remember very clearly my first meeting with Ernie Swedenborg. It was sometime in 1924 or '25, when I was fourteen or fifteen years old and in high school. I had learned about the meetings of the Minneapolis Audubon Society through little notices in the Minneapolis Journal, and had finally screwed up my courage to attend one. These were held in the basement room of the Walker Branch of the Minneapolis Public Library, located on Hennepin Avenue at 29th Street.

That first meeting of the Audubon Society which I attended was in the afternoon, and the small audience was almost entirely elderly ladies, so I felt very much out of place. I was given a very friendly welcome, however, by several of them, and particularly by Mrs. Swedenborg and Mrs. Frances Davidson, who convinced me in our brief conversation that they really did know something about birds. They encouraged me to come to the next meeting which would be held in the evening, and when the men would be present.

At the very next meeting, I met Ernie Swedenborg, who up to then was the most knowledgeable ornithologist I had ever met. In his gruff but kindly way he compared notes with me on birds we had seen and places we considered favorites for our birding, and he encouraged me to go over to the University and meet Dr. Roberts and William

Kilgore (Dr. Breckenridge was not yet at Minnesota then). He assured me that Dr. Roberts would be glad to receive my bird migration records for his Season reports in Birdlore, and with this encouragement I did write a hesitant letter to Dr. Roberts, and was almost overwhelmed to receive a prompt and friendly reply thanking me for my interest, and encouraging me to send my records.

I had already visited the University Museum of Natural History, in the Zoology building where it was then housed, but had never been so brash as to introduce myself to Dr. Roberts or any of the staff. With Ernie Swedenborg's encouragement, however, and the contact established by letter at his suggestion, I finally found the courage to step up and introduce myself to Dr. Roberts on one of the Sunday afternoon museum open houses, and thus began a long and close association with him which lasted until I left Minnesota permanently in 1944.

remember Ernie Swedenborg, therefore, as a very important one of those several older people who gave a teen-age youngster such effective encouragement in my study of birds that it finally led into my choice of university training and professional career. He gave me many tips on excellent places for birds which were within walking distance of various outlying trolley car line (the electric "street car" was the main means of transportation in the Minneapolis and St. Paul area in those days!), he helped in the identification of questionable birds, and he encouraged me to participate in such ventures as the Christmas bird census, and annual summary of breeding birds of Minnesota, which several of us conducted together for a good many years thereafter.

When Sam Grimes came to Minneapolis I became acquainted with him through Ernie Swedenborg, and we went on occasional field trips together. They both gave enthusiastic encouragement to an idea which had been developing in my mind for a couple of years, that of forming an organization of the active younger bird students in the

Twin City area. The Minneapolis Audubon Society, judging from the Attendance at least, consisted chiefly of kindly ladies in their sixties or seventies, but it was at that time the only formal organization in Minneapolis devoted to birds, and it seemed to me that something else was needed to stimulate the exchange of ideas of the younger group which numbered a dozen or two. With Ernie Swedenborg's encouragement, therefore, we were given permission to meet on March 15, 1929 in the same meeting room in the Walker Branch Library where the Minneapolis Audubon Society had met for many years, and the Minnesota Bird Club was organized with thirteen members present. It grew steadily and finally initiated the "Minnesota Ornithologists' Union" and offered its modest official organ, "The Flicker," as the official publication of the state-wide organization.

I recall that I brought along to that first organizational meeting of the Minnesota Bird Club a modest 4-page spirit-duplicated "publication" to serve as a sample of the type of thing the club could issue as an official means of exchanging information. I had produced this at home on a homemade gelatin-base "hectograph," and did not suggest any title for it, the name "Flicker" being chosen at one of the later meetings of the club. Ernie Swedenborg gave much encouragement to the idea of an official organ for the

club, and agreed to contribute an article summarizing "The Christmas Census in Minnesota" for issue No. 2 which was dated April, 1929. This summary of twenty-four years of Minnesota Christmas bird censuses contained much highly interesting and important information, and immediately lent dignity to our embryonic publication.

By issue No. 3, this now-mimeographed house organ was still more ambitious, because it then came in an attractive heavy paper buff cover with an attractive drawing of the Flicker contributed by Walter Breckenridge. The engraving for this cover illustration was contributed by Sam Grimes, who was a photo engraver for the Minneapolis Daily Star.

These reminiscences were meant primarily to express very belatedly my appreciation for the encouragement I received from Ernie Swedenborg as a teen-age youngster in my interest in birds, and while I have digressed, it was only to show the setting. Although at the time of his death I had not seen Ernie Swedenborg for about twenty years, my memory of the encouragement he gave to young people interested in birds during and even before the formation of the Minnesota Bird Club is very strong and very pleasant. It is a privilege to acknowledge his contributions. Professor of Conservation and Head of the Department Cornell University, Ithaca, N.Y.

# 1962 CHRISTMAS COUNT IN MINNESOTA

by Janet C. Green

Approximately 200 people participated in 18 counts in Minnesota during the 1962 Christmas count period. Although the participation about equalled last year's the total number of species seen was only 74 compared to last year's record-breaking 87. Absent were many species of ducks, rails and partridge seen in 1961. However, a

larger total of individual birds seen was recorded - 31,447 which is only about 500 less than the record-breaking total of 1960. Excelsior again recorded, as it did in 1960 and 1961, the highest number of species seen on a single count - 42 species. Three groups counted over 35 species; all the rest were below 30 species.

In spite of the lack of record-breaking totals some interesting new and unusual species and some high numbers of more common species were reported. For the first time on a Christman count the Golden Eagle was seen, at both Winona and Plainview. Two species that had only been recorded once before on a Christmas count were seen this year: Brown Thrasher and Hawk-Owl. The two Hawk-Owls this year were seen as far apart as Hibbing and Plainview, providing a small echo of the unusually large Hawk-Owl invasion Minnesota has experienced this winter. Three other species designated as very unusual were observed: Blue Goose, Shorteared Owl and Saw-whet Owl.

The other highlights of the 1962 count involve new high totals of the more common species. The Rochester group reported 5200 Canada Geese, topping their previous high of 2800. Sixty-five Mourning Doves were counted by the Excelsior group which is 20 more than the previous high total for a single count. The Winona group again turned in a high total for Tufted Titmice - 22 which is 6 above their record of last year. No other locality has ever recorded more than 10 Tufted Titmice

on a Christmas count. White-breasted Nuthatches seemed very numerous with an overall total of almost 100 more than any other year and a new high for a single count - 121 recorded by Excelsior In contrast, Red-breasted Nuthatches were confined to northern part of the state this year in about average numbers. Red-bellied Woodpeckers also seem unusually numerous, appearing on 12 counts with high individual count totals as well as overall total. Slate-colored Juncos, American Goldfinches and Tree Sparrows, the three common ground feeding species, were reported in unusually high numbers in the southern part of the state while the Common Redpoll was found in large numbers in the northern part, reflecting open conditions with little snow in both areas. At Winona 450 Snow Buntings were counted which is a record-breaking total for a single count (previous total was 250) and is especially noteworthy this far south.

Two species were represented by very low total numbers: Northern Shrike with the lowest overall total since 1951 and Pine Grosbeak with the lowest overall total since 1950. 1923 Greysolon Road, Duluth 12, Minnesota.

	HIBBING	DULUTH	WALKER	MOORHEAD	WILLMAR	ST. CLOUD	ANOKA	CEDAR CREEK	EXCELSIOR	MPLS. NORTH	ST. PAUL SOUTH	ST. PAUL	NE SURBURBA ST. PAUL	AFTON	PLAINVIEW	WINONA	ROCHESTER	NORTHFIELD	TOTAL
Great Blue Heron																1			1
Canada Goose									38								5200		5238
Blue Goose																	1		1
Mallard		2							88		105		1	55		31	165		447
Black Duck									2					15		4	5		26
Common Goldeneye		74				400	50			108	69			18			29		748
Common Merganser		1				4								2					7
Red-breasted Merganser		4																	4
Goshawk												1							1
Sharp-shinned Hawk								1											. 1
Red-tailed Hawk									3			1	6	4	1	9	7	1	32
Red-shouldered Hawk																3			3
Rough-legged Hawk									4			1	1	1		1			8
Golden Eagle									, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						4	1			5
Baid Eagle			1											1					2
Morsh Hawk				-,			1			1			1				2		5
Sparrow Hawk							1	2	6	1	2	3	1	1			,	3	20
Ruffed Grouse		1	2			1				-		1	3	4					12
Ring-necked Pheasant		1	4	7	3	3	. 5	5	53	12	2	10	69	8	4	2	10	2	200
Killdeer											,		2						2
Common Snipe								-	4				6			1			11
Herring Gull		145																	145
Mourning Dove								1	65				4	2		6	2		80
Screech Owl	-	-							-			1	1	1			-		3
Great Horned Owl									2				2	3		1			8
Snowy Owl		3							.,										3
Hawk-Owl	1														1				2
Barred Owl		1						1				I					1		4
Short-eared Owl				1	-										-				1
Saw-whet Owl				-					. 1	-	· · · · · ·								1
Belted Kingfisher												1			4	2		1	8
Yellow-shafted Flicker								- /	2					1		1		1	5
	1		3			4		3	10		2	2	2	7		2		1	37
Red-bellied Woodpecker	•				2			1	18	3	3	3	9	11	10	22	6	3	91
Red-headed Woodpecker		-			-				1						1	1	1		4
Hairy Woodpecker	6	11	15	1	4	3	8	5	37	5	5	5	25	22	5	22	9	5	193
Downy Woodpecker	5	24	10	14	15	8	9	22	57	19	8	15	38	33	6	37	13	3	336
Horned Lark	_								3	9			2		5	16			35

	HIBBING	ригитн	WALKER	MOORHEAD	WILLMAR	ST. CLOUD	ANOKA	CEDAR CREEK	EXCELSIOR	MPLS. NORTH	ST. PAUL	ST. PAUL NORTH	NE SURBURBAN ST. PAUL	AFTON	PLAINVIEW	WINONA	ROCHESTER	NORTHFIELD	TOTAL
Gray Jay	2		1																3
Blue Jay	19	23	23		7	16	11	30	88	29	16	10	67	42	26	107	35	12	561
Common Rayen	1	11	1																13
Common Crow					2		7	31	78	18	13	20	134	16	5	25	29	44	422
Black-capped Chicko	dee 33	61	81	25	27	37	23	66	245	52	42	64	152	78	5	104	18	40	1153
Boreal Chickadee	2																		2
Tufted Titmouse						2		1	3	2		5	9	7		22		2	53
White-breasted Nuth		9	13	11	25	22	23	20	121	14	12	16	78	51	14	49	8	11	499
Red-breasted Nutha	tch 10	6	5		,	6													27
Brown Creeper		1	1	. 1	2	1	2	2	9		2		4		1	3		.1	-30
Brown Thrasher									1										1
Robin	1	6			1						2		1	1					12
Golden-crowned Kin	glet		4	1		5	3		14		11	4	6	4	2			4	58
Bohemian Waxwing	40		2		***************************************	1													43
Cedar Waxwing		98				11				35				67					211
Northern Shrike								1	1										2
Starling	7	206	5	36	22	15	25	38	270	130	231	500	86	94	26	215	43	70	2019
House Sparrow	235	516	25	353	95	225	110	377	2038	481	268	110	1028	1216	178	1875		102	9232
Redwinged Blackbirg	d			11					9				1			8			29
Rusty Blackbird									43				5		2				50
Brewer's Blackbird									1				4						5
Common Grackle								1	1		1						1		4
Cardinal			1			4	3	5	75	10	12	7	49	90	33	244	47	8	588
Evening Grosbeak	252	360	380			25	3			3									1023
Purple Finch		15	3	3		4		4	89	20		24	76	26			4		268
Pine Grosbeak	19		3											1					23
Common Redpoll	248	73	162			107		31	7					34					662
Pine Siskin		95	27	51		47		10	8					1					239
Amercian Goldfinch						10	50	203	244	13		32	198	64	54	351	14	14	1247
White-winged Cross	bill			1															1
Slate-colored Junco			2		16	18	27	109	398	70	14	48	344	149	34	647	48	4	1928
Oregon Junco								1	4					1		1			7
Tree Sparrow			1				50	292	764	34	87	125	135	121	173	356	135	168	2441
White-throated Spar	rrow 1								1										2
Song Sparrow															3	1			4
Snow Bunting	102	47	132	1						2			118	3		450			855
Total individuals	987	1794	907	517	221	979	411	1263	4906	1071	907	1010	2668	2255	597	4621	5833	500	31447
Total species	20	26	27	15	13	25	19	27	42	23	21	26	36	38	24	35	25	22	74

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THE FLICKER

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# THE WINTER SEASON

by Ronald L. Huber

This report covers the period from December 1, 1962 until March 9, 1963. Since the Christmas Census article by Janet C. Green appears in this issue, this report will cover those observations other than those on the Christmas Counts. This report also does not devote much space to the common or usual winter species, unless they range out of the ordinary.

Weather: Early December was deceptively warm and suddenly the remainder of the month experienced recordbreaking cold weather with sustained below-zero periods. Temperatures of 28 to 32 below zero occurred on several occasions in the Twin City area. Late January and February weren't quite as cold, but strong winds and occasional dips to 18 and 20 below were experienced in the Twin Cities. On January 13, the temperature at Finland, on the North shore of Lake Superior, dropped to 39 below. The most pronounced effect upon our bird-life during this frigid period was the general closure of open water throughout the state. Most noticeable was the Lake Superior freeze-up. A recent article in the Minneapolis Star, accompanied by aerial photographs, showed that Lake Michigan was completely frozen over except for a small area near Milwaukee harbor. Lake Superior was completely frozen over except for an area near Isle Royal and a few "puddles" along the North Shore in Minnesota. When the latter lake, largest body of fresh water in the world, is frozen over so extensively, we know it has been a hard, cold winter!

### GREBES:

Red-necked Grebe: Jan 5, Knife River, Janet C. Green; Jan 15, same area, Janet Green, Very few winter records See also Canadian Lakehead report.

### HERONS:

American Bittern: Early Dec, one seen at Howard Lake, Wright Co., by Mrs. Erma Christopher. An unusual record.

### DUCKS AND GEESE:

Canada Goose: As usual, several thou-

sand wintered on Silver Lake, Rochester, Olmsted Co. Among these were many *Branta canadensis maxima*, a race of the "honker" which was recently believed to be extinct. They have been breeding in northeastrn South Dakota and apparntly near Rochester. Good news, in view of recent wetland drainage problems confronting many of our water birds.

Blue Goose: One wintering with above species at Silver Lake. Probably the same individual that has been remaining there all year round.

Pintail: Jan 5, Feb 1, NSP Blackdog Plant, Dakota Co., Avifaunal Club. American Widgeon: Jan 1, Feb 1, NSP

Blackdog Plant, Avifaunal Club. Wood Duck: Feb 9, NSP Blackdog Plant, female seen by Avifaunal Club. Common Goldeneye: Seen on open water in usual southern Minn. locations, but North Shore wintering population greatly reduced due to freeze-

Bufflehead: Dec. 3, Two Harbors, Lake Co., Ruth Kuchta; Jan 5, Feb 9, NSP Blackdog Plant, Dakota Co., Avifaunal Club.

Oldsquaw: Like the common Goldeneye, numbers much reduced because of freeze-up. Small groups of 1-9 seen throughout Dec. from Lester River to Two Harbors, Janet Green and Dr. Gerry Church. By January mostly gone; Jan 5, Lester River, Janet Green; Jan 26, Tofte, Janet Green; Feb. 2, Two Harbors, Janet Green and Avifaunal Club; Feb. 17, Grand Marais, Janet Green, Gloria Peleaux. Last date given was group of 5, largest "flock" this year.

Harlequin Duck: Jan 8, Knife River, immature male seen, Janet Green. White-winged Scoter: Dec. 3-18, 2-3 seen, Two Harbors, Dr. Gerry Church; Jan. 8, Knife River, 3 seen, Janet Green; Feb. 8, mouth Cascade River, 4 seen, John Hale.

King Eider: One seen at Knife River on Jan. 5, by Janet Green. Present until Jan. 13, when it was collected for Minnesota Museum of Natural History. This is either first or second

Minn. record, dependent upon stillpending circumstances. A more comprehensive account of this will be

published in a future issue.

Common Merganser: A very few wintering along North Shore in "puddles" of open water; largest concentration reported was at Read's Landing, Wabasha Co., on Feb. 23, when 40 were seen by Amy Chambers.

Red-breasted Merganser: A few present in open water along North Shore in Dec. and Jan., but not seen in Feb.

### HAWKS AND EAGLES:

Goshawk:

Dec. 20, Cloquet Forest, Carlton Co.

Gordon Gullion Dec. 23, Nimrod, Wadena Co. 1 adult R. Oehlenschlager

Dec. 27, Nimrod, Wadena Co. 1 adult
R. Oehlenschlager
Jan. 3, Ramsey Co.,
Jan. 10, Two Harbors, Lake Co. 1 adult

Jan. 13, Lake Co.
Feb. 2, Ramsey Co.,
Mar. 2, Shotley, Beltrami Co. 1 adult
Mrs. Goranson, R. Huber

Subsequent to the heavy invasion this past fall, we might expect wide-spread reports, especially in the northern part of the state.

Cooper's Hawk: Jan. 21, Central Lakes, St. Louis Co., Mr. Stults; Feb. 27, French River, John Hale.

Sharp-shinned Hawk: Jan. 28, Ramsey Co., A. C. Rosenwinkle, Feb. 16, Askov,

Pine Co., W. J. Breckenridge.

Red-shouldered Hawk: Jan. 15, Homer, Winona Co., Austin Shira; Jan. 19, Wabasha and Winona Counties, Avifaunal Club; Jan. 20, Winona Co., Gwen Miller, Mar. 8, Wayzata, Hennepin Co., R. Huber.

Rough-legged Hawk: Reported from various, widespread areas in the state, but apparently in very reduced numbers as compared with past five winters.

Golden Eagle: Jan. 19, adult, Whitewater Park, Winona Co., Avifaunal Club; Feb. 2, adult, Nimrod, Wadena Co., R. Oehlenschlager.

Bald Eagle:

Dec. 18, Read's Landing, Wabasha Co., 23 Dr. Mathieson adults Dec. 22, Read's Landing, 3 adults, John Feehan Dec. 24, 10 mi. S. Nimrod, Wadena Co., 1 adult R. Oehlenschlager Dec. 28, Lafayette Bluff, Lake Co., one re-ported M. Penner Jan. 9, May Twnshp, Washington Co., 1 adult D. Honetschlager Jan. 15 Read's Landing, 1 immature and 19 adults Jan. 19 Read's Landing, 9 adults, Avifaunal

Jan. 24, Cloquet Forest, Carlton Co. Gordon Gullion Feb. 1, St. Croix Park area, 1 adult Feb. 9, Newport Washington Co., 1 adult Bob Janssen Feb. 23, Read's Landing, 2 adults, Feb. 23, Red Wing, Goodhue Co., 2 adults Amy Chambers Feb. 23, Etter, Goodhue Co., 1 adult W. R R. Pieper date ?, Dakota, Winona Co., 2 adults Elmer Bernadott Marsh Hawk: Dec. 24, Nimrod, Wadena Co., male, R. Oehlenschlager; Dec. 29, Mud Lake, Traverse Co., 6 seen, R. Grant; early Jan., Annandale, Wright Co., Erma Christopher; Jan. 18, Eden Prairie, Hennepin Co., male, R. Huber; Feb. 1, Blackdog Plant, Dakota Co., Avifaunal Club; Feb. 3, Nimrod, Wadena Co., male, R. Oehlenschlager. Prairie Falcon: Feb. 15, in South Dakota near Salt Lake, Lac Qui Parle Co., Minn, one seen on hay stack by Lowry Elliott; another reported on Manitoba Christmas Count at Winnipeg, just north of Kittson Co., Minn.

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### GALLINACEOUS BIRDS THRUGULLS

Spruce Grouse: Mar 2, about 9 mi. S., Waskish, Beltrami Co., 2 males and 1 female picking gravel on edge of Hwy. 72, D. Dorn and R. Huber.

Greater Prairie Chicken: Dec. 16, Dec. 23, Feb. 2, Nimrod, Wadena Co., R. Oehlenschlager; Dec. 26, Cass Co., E. of Nimrod, R. Oehlenschalager.

Sharp-tailed Grouse: Dec. 9, Dec. 23, Hibbing, St. Louis Co., Harriet Micensky; Jan. 1, Baudette, Lake-of-the-Woods Co., Avifaunal Club; Jan. 17, Shotley, Beltrami Co., Mrs. Ben Goranson; Feb. 23, Lancaster, Kittson Co., and Feb. 24, Warroad, Lake-of-the-Woods Co., staff members of Minn. Museum of Natural History.

Chukar: Dec. 31, Ely, St. Louis Co., Avifaunal Club; Feb. 2, Ely, Avifaunal Club and Janet Green.

Gray Partridge: Feb. 23, near Roseau, Roseau, Co., staff members of Minn.

Museum of Natural History.

American Coot: Two wintering at Howard Lake, Wright Co., Mrs. Erma Christopher; Jan. 5, Feb. 2, NSP Blackdog Plant, Dakota Co., Avifaunal Club. Glaucous Gull: Dec. 6, adult, Knife River, Janet Green; present all during January in Knife River-Two Harbors area, as many as 9 seen at one time. Plumage characters indicates at least





Cliff swallow sticking his nose out of his "muddy manor."



Tree Swallow peering out of nesting box.
House wren striking a valiant pose outside

House wren striking a valiant pose outside of split level nesting abode.

# Close-ups from stevens county Nesting country

Young Yellow-headed Blackbird hugging





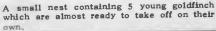
A pheasant hen sitting on her eggs, in well camoufloged setting.

Five little barn swallows fanned out in eating formation.

grass and weeds. F moved aside to show



photos and text by e.h.strubbe alberta,minn.











nest, well hidden by





15 different individuals present during January: 6 adults, 6 second year, 3 first year. Remained thru February. Careful scrutiny of these by Janet Green revealed following species.

Iceland Gull: Three seen in Knife River-Two Harbors area, between Jan. 8, and Jan. 15, by Janet Green and other observers. Carefully identified at close range, in company with Glaucous and Herring Gulls. A note of interest on this will appear in a future issue. Not seen during Feb., but one adult seen again at Knife River on Mar. 2, by Janet Green. About eight previous records, some of which are open to question because of lack of details. Two specimens have been taken in Minnesota.

Herring Gull: The usual wintering population along the North Shore fluctuated in numbers this winter in direct accord with open water conditions. Most interesting record was one adult seen at Silver Lake, Rochester on Jan 19 by Avifaunal Club.

### DOVES THRU OWLS:

Mourning Dove: More scarce than usual this winter. One in late Jan. seen frequently at feeder of V. E. Janssen in south Mpls; A. C. Rosenwinkel seems to have them staked out this winter: Dec. 30, Jan. 3, Feb. 1 all in Ramsey Co.

Screech Owl: Seen for several days in late Dec., St. Paul, A. C. Rosenwinkel; Mar. 2, gray phase, Mpls, W. R. Pieper; all winter in May Twnshp, Washington Co., red phase, D. Honetschlager. Great-Horned Owl: Present all winter in Duluth area, various observers; all winter in May Twnshp, Washington Co., at least two, D. Honetschlager; all winter, White Bear, Washington Co., Jack Gardner; Jan. 1, Nimrod, Wadena Co., Avifaunal Club; Jan. 7, Mpls, R. Huber; late Jan., Bemidji, Beltrami Co., specimen taken by John Souder, taxidermist; Mar. 9, Mora, Kanabec Co., Avifaunal Club.

Snowy Owl: Dec. 19, near Hibbing, reported to Harriet Micensky. Dec. 23, Nimrod, Wadena Co., R. Oehlenschlager; Dec. 29, Mud Lake, Traverse Co., 2 seen, R. Grant; Jan. 1, Baudette, Lake-of-the-woods Co., Avifaunal Club; all Jan., Minn. Point, Duluth (3 there

on Jan. 8, Janet Green) reported by J K. Bronoel; two seen there on Feb. 15 by Janet Green; one seen there on Mar. 9, Avifaunal Club. Hawk Owl:

all Dec., Duluth and Range Cities

9 observations reported to Janet Green
Dec. 26, Cass Co., E. of Nimrod, 1 seen
R. Oehlenschlager
Dec. 31, 5 mi. N. Two Harbors, Lake Co. 1 seen
Avifaunal Club
all Jan. Duluth and Bange Cities

all Jan, Duluth and Range Cities

12 observations reported to Janet Green
Jan. 1, Baudette to Washkish, 9 seen,
Avifaunal Club
Jan. 15, St. Paul, Ramsey Co., 1 seen

Jan. 15, St. Paul, Ramsey Co., 1 seen A. C. Rosenwinkel Jan. 19, Kellogg, Wabasha Co., 1 seen, Avifaunal Club Jan. 20, Kellogg, Wabasha Co., (same bird) Hiawatha Valley Bird Club

Feb. 2, Nimrod, Wadena Co., 1 seen R. Oehlenschlauger Feb. 14, Tamarac, Aitkin Co., 1 seen R. Janssen

Feb. 16, Knife River, Lake Co., 1 seen Gloria Peleaux, Janet Green Feb. 17, Nickerson, Pine Co., 1 seen, R. Janssen Feb. 24, Carp, Lake-of-the-woods Co., 2 seen Museum staff members

Mar. 2, Shotley, Beltrami Co., 1 seen
Mrs. Goranson, R. Huber
Mar. 2, Badoura Twnshp, Hubbard Co., 1 seen
D. Dorn, R. Huber
Mar. 9, Wright, Carlton Co., 1 seen

Mar. 9, Aitkin Co., W. of Wright, 2 seen
Avifaunal Club
A total of 45 observations, a few of
which may be duplications. Brings

winter total to 109 observations.

Barred Owl: Jan. 2, Ramsey Co., A. C.
Rosenwinkel; Feb. 22, Ramsey Co., A.
C. Rosenwinkel; Feb. 23, Etter, Dakota

Co., R. Janssen.

Long-eared Owl: Feb 18, one found dead on road just S. of Elk River, on Wright Co. side of MMississippi River, R. Huber.

Short-eared Owl: Dec. 29, Mud Lake, Traverse Co., R. Grant.

Boreal Owl: Mar. 1, French River, St. Louis Co., one found dead by John Hale; Mar. 9, Two Harbors, Lake Co., at close range, Avifaunal Club and Janet Green, photographed by Dr. Gerry Church.

Saw-whet Owl: Jan. 31, Duluth, one found dead, brought to Ray Naddy.

WOODPECKERS THRU CORVIDS: Yellow-shafted Flicker: Dec. 11, Eden Prairie, Hennepin Co., R. Huber; one all winter at Cokato, Wright Co., Mrs. Erma Christopher.

Red-bellied Woodpecker: Jan. 19, Read's Landing, Wabasha Co., Avifaunal Club; Jan. 19, Frontenac, Goodhue Co., Avifaunal Club; Feb. 23, Hastings, Dakota Co., R. Janssen; common all winter, May Twnshp, Washington Co., D. Honetschlager.

Black-backed Three-toed Woodpecker: Dec. 15, Nimrod, Wadena Co., female collected, R. Oehlenschlager; Feb. 17, Lutsen, Cook Co., 2 males, Gloria Peleaux, Janet Green, R. Janssen; Mar. 2, Waskish, Beltrami Co., male and female seen, 4 others heard, D. Dorn and R. Huber. Some of those calling may have been the following species. Northern Three-toed Woodpecker: On Dec. 21, one seen in Hibbing by Harriet Micensky and Mrs. Oscar McCracken. See Christmas Census, elsewhere in this issue. This has been quite a winter for Three-toed Woodpeckers. Horned Lark: Arrived in some numbers during early Feb. near Twin Cities. By end of Feb., they were paired off on breeding territories as far north as Duluth and Waskish. Gray Jay: Dec. 31, S. of Ely, St. Louis

Co., Avifaunal Club; Jan. 1, Washkish, Beltrami Co., Avifaunal Club; Feb. 23, 24, throughout Roseau and Lake-of-the-woods Counties, Museum staff members; Mar. 2, Waskish, R.

Huber.

Black-billed Magpie: Jan. 1, Baudette to Waskish, 6 seen, Avifaunal Club; Feb. 23, Kittson and Roseau Counties, Museum staff; Feb 24, Northwest Angle, Lake-of-the-woods Co., Museum Staff; Mar. 2, Shotley, Beltrami Co., 3 seen, Mrs. Ben Goranson, R. Huber. Common Raven: Common throughout northern part of state this winter and very abundant in certain localities. On Feb. 16, large flocks of 50-60 seen at several city dumps along North Shore by Gloria Peleaux, Janet Green and Avifaunal Club.

CHICKADEES THROUGH SHRIKES: Boreal Chickadee: At Hibbing, Harriet Micensky had 22 observations at her feeder during Dec.; Dec. 28, Cloquet Forest Research Center, Carlton Co., Gordon Gullion; during Jan., Harriet Micensky again had 21 observations; Feb. 16, Lutsen, Cook Co., 3 at feeder, Gloria Peleaux, Janet Green; Feb. 24, Northwest Angle, Lake-of-thewoods Co., 2 seen, Museum staff.

Tufted Titmouse: All winter at Mrs. Cuthbert's feeder, Lake Vadnais, Ramsey Co., reported by A. C. Rosenwinkel, and in May Twnshp, Washington Co., at least 3 at feeders, D. Honetschla-

ger; Jan. 13, Theodore Wirth Park, Mpls, R. Huber; second week in Feb., Big Stone City, South Dakota, near Minnesota border, one banded by Lowry Elliott. Nearest Minnesota city would be Ortonville. Feb. 26, Theodore Wirth Park, Mpls, R. Huber; Grace Dahm of Hiawatha Valley Bird Club took the following survey on Jan. 15, all in Winona County: Homer, 1 seen, Austin Shira; Pleasant Valley, 2 seen, E. E. Christensen; Prairie Island, 2 seen, Robert Stephan; Dakota, 4 seen, Victor Morse; Stockton, 2 seen, Karl Lipsohn; West Burns Valley, 2 seen, Gwen Miller.

Red-breasted Nuthatch: all through Dec. in Duluth-Range Cities area. 92 observations from Ruth Kuchta, Vera F. Barrows and Myrtle E. Penner. During Jan. there were 132 observations from same general area, but none seen in Duluth; Feb. 22, small flock at Waskish Conservation Station Feeder, seen by Mrs. Ben Goranson.

Winter Wren: One seen on Jan. 1, Purgatory Creek, Eden Prairie, Henn-

epin Co., R. Janssen.

Brown Thrasher: Dec. 18, Carver Co., N of Shakopee, R. Huber; see also the 1962 Christmas Census in this issue. Robin: Widely reported throughout state this winter in small numbers, as far North as Waskish and North Shore. Largest flocks seen just above and below Two Harbors area where up to 20 seen on several occasions by various observers. Jan. 1, Purgatory Creek, R. Janssen. Bohemian Waxwing: Dec. 22, 40 seen,

Bohemian Waxwing: Dec. 22, 40 seen, Hibbing, Harriet Micensky; Jan. 5-26, flocks 5 to 30, Duluth area, Nels Hervi, Janet Green, P. B. Hofslund; all Feb., flocks 20 to 70 seen occasionally, Duluth, Janet Green; first week of Mar., large flocks up to 100, Duluth, Janet

Green, Avifaunal Club.

Cedar Waxwing: all Dec., Duluth to Two Harbors, up to 100 seen, several observers; all Jan., Duluth, flocks 10-50 seen, various observers; Jan. 18, Dakota, Winona Co., 2 seen, Harry Luedke; all Feb., Duluth, "more common than Bohemian" says Janet Green, one flock contained 150 birds; Feb. 9-10, May Twnshp, Washington Co., small flock, D. Honetschlager; Feb. 12, Milbank, South Dakota, near Mina. line (Lac Qui Parle Co.) 19 seen, Lowry Elliott.

Northern Shrike:

Dec. 27, 28, Parkville, Duluth

Mrs. S. N. Erickson Jan. 1, May Twnshp, Washington Co. D. Honetschlager (banded) Jan. 1, Wheeler's Point, L-of-Woods

Avifaunal Club Jan 1-6, 20, 21, Duluth-Two Harbors area

Feb. 14, Duluth
Feb. 16 Lake Co., near Tofte, Avifaunal Club
Feb. 17, Silver Cliff, Lake Co., R. Janssen
Feb. 22, Ramsey Co., A. C. Rosenwinkel
Feb. 23, South St. Paul
Feb. 26, Hastings, Dakota Co., W. R. Pieper
Mar. 9, Aitkin Co., 10 mi. W. Wright
Avifaunal Club

Very scarce this winter throughout

the state.

# BLACKBIRDS THROUGH SPAR-ROWS:

Western Meadowlark: Dec. 18, Carver Co., N. of Shakopee, R. Huber; Feb. 22, Cokato, Wright Co., Mrs. Erma Christopher.

Rusty Blackbird: Jan. 5, Eden Prairie, Hennepin Co., several with Redwings, Avifaunal Club; all winter, 8 in May Twnshp, Washington Co., D. Honetschlager; considerably less common this winter than usual.

Brewer's Blackbird: Jan. 1, Carver Co., N. of Shakopee, R. Janssen; 16 seen on Christmas Census in Sioux Falls, South Dakota, adjacent Rock County, Minn.

Cardinal: following reports were out of the ordinary: Dec. 2, male, Duluth, Mrs. B. Rutherford; Jan. 31, female, Donnelly, Stevens Co., most of winter at Allie Olson feeder, reported by Del Holdgrafer; Feb. 12, male, Lac Qui Parle Co., Lowry Elliott; Feb. 16, male, Schroeder, Cook. Co., Janet Green; a sharp increase in Cardinals was reported by John Feehan who states that Clyde Brown has counted as many as 50 at once near his farm at Genoa, twelve miles north of Rochester.

Evening Grosbeak: all winter, Shotley, Beltrami Co., feeder of Mrs. Ben Goranson. One of these, a female, had aluminum band and 3 color-bands as follows: left leg-green above red, right leg-green above aluminum. Banded by any of our Minnesota banders? Widely reported in northern part of state from Waskish east to Hibbing and North Shore, south to May Twnshp, Washington Co. (D. Honetschlager), Minneapolis (W. J. Breckenridge), thence northwest to Cass Lake (Avifaunal Club) and Fertile, Polk Co.

(Mrs. B. L. Duckstad).

Hoary Redpoll: Jan. 1, 5 mi. SE Waskish, Beltrami Co., 1 seen with 20 common Redpolls, Avifaunal Club; Feb. 16, 3 seen at Grand Marais, Cook Co. and 1 seen at Knife River, Lake Co. by Janet Green, Gloria Peleaux and Avifaunal Club; Mar. 2, Waskish, 4 out of 13 Redpolls in one flock were Hoarys, D. Dorn and R. Huber; Mar. 9, French River, St. Louis Co., 4 out of about 60 were Hoarys, Avifaunal Club; Redpolls were generally restricted to northern parts of state this winter.

Pine Siskin: Abundant in northern parts of state, with only a few records for southern Minn: Dec. 30, small flock, Mpls, R. Huber; all winter at feeder of V. E. Janssen, in south Mpls; Feb. 5 Hennepin Co., A. C. Rosenwinkel.

White-winged Crossbill: Dec. 2,8, small flocks, Duluth, P. B. Hofslund; Jan 5, Cloquet Forest Research Station, Gordon Gullion; Jan. 27, Grand Marais, Cook Co., A. E. Allin; Feb. 15, Duluth, Janet Green; first two weeks in Jan., St. Paul, A. C. Rosenwinkel.

Rufous-sided Towhee: A female seen Dec. 25 in South Dakota near the Minn. line (Lac Qui Parle Co.) by Lowry Elliott has wintered at a feeder quite well and was still there as of Feb. 22. Possibly the arctic subspecies? (See Notes of Interest)

Oregon Junco: all winter at feeder of Dr. W. J. Breckenridge, N Mpls; Jan. 15, West Burns Valley, Winona Co., Gwen Miller; Feb. 12, Lac Qui Parle Co., one seen, Lowry Elliott.

White-throated Sparrow: This is probably one of the first "White-throated Sparrow Winters" on record in Minn. While not abundant in any single locality, they were widely reported. Dec. 10-31, Hibbing, at feeder, Harriet Micensky; Jan. 6-7 thru late Feb., N. shore Mille Lacs Lake, Aitkin Co., two, then only one, at feeder reported by W. R. Pieper; Feb. 12, one banded at Genoa, Olmsted Co. by Carl Johnson, John Feehan. See also Christmas Census in this issue.

Lapland Longspur: Feb. 17, small flock, Dakota Co., A. C. Rosenwinkel. Snow Bunting: Usual numbers in northern part of state except North Shore where they were surprisingly

scarce this winter.

SUMMARY: The Hawk Owl-Goshawk invasion still gets headlines, as do five species little-known to Minnesota birdwatchers: King Eider, Harlequin Duck, Iceland Gull, Boreal Owl and Northern Three-toed Woodpecker. The first three of these were discovered through the vigilant efforts of Janet Green. Her keen eye and interest have stimulated birders of northeastern Minnesota to submit monthly reports to her. As a result, the Arrowhead Country has become one of the better-covered areas in the state. Perhaps our readers will note with interest that nine species of owls were included in this report.

ADDENDA TO FALL REPORT: The following were received too late for publication in the Fall Report, but are of sufficient interest to be included here.

Barrow's Goldeneye: One shot (later eaten) by Game Warden Bill Calleis of Waskish, Beltrami Co. The bird, an adult male, was the only one of its species that Mr. Calleis has ever seen in Minnesota. He was unaware at the time that no specimens have ever been taken in Minnesota for the Museum collection. He knows his ducks well, and his description left no doubt as to its identity.

Whip-poor-will: Sept. 17, Fertile, Polk Co., one seen and heard, Mrs. B. L.

Duckstad.

Black-billed Magpie: Oct. 6-7, in aspens and willows, Red Lake Game Refuge, seen by grouse-hunters and reported to Bob Janssen.

Black-throated Blue Warbler: Probably the rarest of Minnesota's regularly occurring warblers, an adult male seen Oct. 6, Christmas Lake, Hennepin Co., by Rachel Tryon. 3121 Georgia Ave. So., Minneapolis 26, Minnesota.

# THE CANADIAN LAKEHEAD

by A. E. Allin

The below-normal temperature pattern of previous months ended, as October finished with a mean temperature of 44.8°, compared with the 30year average of 42.6°. Although the frost-free period of 108 days ended with late September minimal temperatures of 29°, the first really killing frost at the meteorological station was reported on October 20 when the temperature dipped to 29°. November was also dull, dry and mild with a mean temperature of 31.2°, well above the 30-year average of 27.0°. December was a variable month. Record breaking temperatures in the low 50's were recorded in the first week and above normal temperatures in the third week but the cold weather of the last week resulted in a monthly mean of 12.1° compared with a normal 13.5°. The total precipitation for the three months was below normal; the total snowfall from September 1 to December 31 was 23.2" about 7" below the long-term average. In contrast to the dull months of October and November, December was fairly sunny.

We saw our last butterfly, a Painted Beauty, in the garden on October 17. Ox-eye Daisies, Common Buttercups, Red Clover and Astar Lindleyanus were still in bloom along the roadsides on October 14. On October 31, the seeds of the White Birch littered the city streets; yet they were so abundant that as late as mid-January they covered the newly fallen snow as though fine bran had been scattered over its surface. These seeds provide food for House Sparrows, Common Redpolls and Pine Siskins. Following a 4.6" snowfall on November 4, most of the leaves fell from the Common Lilacs and Willows. A few Tamaracks were still yellow on November 11 in swamps where the fruit of the Autumn Willow was the dominant feature. A few Pansies still bloomed in Chippewa Park on November 27.

Whitefish Lake frequently freezes during the last few days of October. In 1962, large fields of ice were present by October 28, but later disappeared. Very little was present on December 1, an unusual situation. Even then numbers of muskrats were seen feeding in the marshes and making little attempt at house building, a task usually completed by early November. Only the shallow bays of Lake Superior were frozen on December 22.

As indicated above, the third week in December was mild whereas the last week was very cold with daily minimum temperatures of -8° to -23°. Fortunately the Thunder Bay Field Naturalists Club had moved its census date from the usual December 26 forward to December 22. Possibly as a result we had one of the most successful censuses despite the fact it snowed much of the day and visibility was poor. Only 12 members participated in the actual census. Further reports were received from four feeding stations. A total of 31 species and 4,392 individuals was seen, tying the 1954 census in species observed but well below the 5505, 4535, and 5004 individuals seen in 1958, 1959, and 1960 respectively.

The following was our count for the various species recorded: House Sparrow, 1382; Starling, 1120; Rock Dove, 580; Herring Gull, 353; Pine Siskin, 225; Evening Grosbeak, 204; Black-capped Chickadee, 129; Common Redpoll, 103; Common Raven, 72; Pine Grosbeak, 44; Blue Jay, 35; Snow Bunting, 35; Cedar Waxwing, 25; Downy Woodpecker, 24; Hairy Wood-19; Gray Jay, 8; Whitewinged Crossbill, 9: Boreal Chickadee, 4; Common Goldeneye, 4; Common Crow, 3; Slate-colored Junco, 3; Common Merganser, 2; Rusty Blackbird, Ruffed Grouse, Snowy Owl, Hawk-Owl, Pileated Woodpecker, White-breasted Nuthatch, American Robin, MOUN-TAIN BLUEBIRD, and Song Sparrow, one each.

As usual the three introduced species, House Sparrow, Starling and Rock Dove, led the list, and the 1120 Starlings exceeded the previous record of 1095 reported in 1959. The 204 Evening Grosbeaks and 225 Pine Siskins seen on the 1962 census far exceeded the numbers of these seen on any previous census. The White-breasted

Nuthatch was reported for the third census but the Red-breasted Nuthatch was again absent. A single Song Sparrow was seen at the Empire Elevator where three had been recorded on the 1960 Census. The Hawk-Owl appeared on our census for the third time on the 23 censuses taken here.

Old friends are always sought on these censuses but I suppose we are always hoping for a species new for the census list. This year a Rusty Blackbird was identified at the Empire Elevator area. This is the first winter record for the Rusty Blackbird at the Canadian Lakehead. The highlight of the Census however was Mountain Bluebird we carefully identified in Chippewa Park where it had been seen 4 hours earlier by the Robbs. When we returned later however it was no longer present. Perhaps the presence of a Hawk-Owl in a near-by tree was significant. This is the first Mountain Bluebird to be reported in Ontario.

The fall migration failed to produce unusual records or movements. In general duck migration was very poor as they drifted through in small numbers. Not until the last few days of October was there a really marked movement as the Lesser Scaup briefly paused, then moved southward. A similar phenomenon was reported in Southern Manitoba. There has been no marked movement of northern birds with the exception of Hawk-Owls and Snowy Owls.

Swans to Mergansers: A Whistling Swan was seen with a flock of 6 very large Canada Geese at Chippewa Park on November 25. This is a late record for the geese and the second fall record for Whistling Swans at the Lakehead. About 500 Black Ducks and Mallards remained in the local harbour until mid-November. We saw 10 Buffleheads at Cloud Bay on October 27 and heard of a few others on Whitefish Lake earlier in the month. We identified 3 White-winged Scoters at Grand Marais and a female Hooded Merganser at Chicago Bay, Lake Superior on November 10. With the water of Lake Superior Bays remaining open throughout much of December. one could have expected numbers of

ducks. Actually only Common Goldeneyes and the 2 Common Mergansers seen by the Robbs on December 22 have been reported.

Vultures to Falcons: A Bald Eagle was seen at Whitefish Lake on October 29. About the same time 50 Rough-legged Hawks were reported migrating over the same lake. This was the only movement of this species reported, apart from a few individuals.

Grouse to Coots: As reported in our last article, both Spruce and Ruffed Grouse are at low ebbs in their cycles. Apparently there were a few areas where Ruffed Grouse were moderately common but in much of their range they were scarce. A local conservation officer reported numbers of grouse in Aldina Township on November 18; about 20 percent were Spruce Grouse. Mrs. Peruniak reported both species present in moderate numbers north of Atikokan.

Plovers to Terns: Shore-bird migration was very poor. None was seen after mid-October. Herring Gulls remained in large numbers until the end of the year and more juveniles were present than usual. None of the uncommon gulls or terns was reported during 1962.

Doves to Woodpeckers: According to T. Perrons a Mourning Dove is again wintering here.

The movement of owls has been most exciting. On October 20, we saw Hawk-Owl in Oliver Township; we little expected to see another the following day. In the next two weeks T. Perrons saw one at Martin in Kenora District and two between Port Arthur and Fort William. The Allins saw one at Mineral Center, Cook County, on November 18, and the Hogarths reported one in the same area a week later. We saw another at Chippewa Park on December 22 and one was reported in Port Arthur on December 30. This must be one of the greatest movements of Hawk-Owls in recent years. Ray Naddy of Duluth has many records for Northern Minnesota. Several have been seen in Southern Manitoba and the movement extended south at least in considerable numbers, as they have to the north shore of Lake Ontario. Snowy Owls were first reported late in October and became relatively common in December. We saw 4 in the Lakehead Cities on December 26. Mrs. Peruniak reported a Great Gray Owl near Atikokan on December 20. A Sawwhet Owl was caught by a trapper near Schreiber in late December. A Short-eared Owl was seen on November 10 and a Great Horned Owl on November 18. A Boreal Owl was caught by hand in Piapoonge Township on January 5, 1963.

Flycatchers: One would not expect to see a flycatcher at the Lakehead in the late fall. Yet Mrs. M. Knowles carefully wrote down the description of a bird seen outside her Rosslyn home on October 23, checked her description with Peterson and then again watched the bird. She is certain it was a Crested Flycatcher a species which has been recorded on only a few occasions at the Lakehead. By October it should have been in its winter home, far south of the Canadian Lakehead.

Larks to Creepers: The movement of Horned Larks was very poor; none was reported after early October. A Common Crows are wintering few here. Common Ravens are again common, returning to their city wintering grounds in late October. Blue Jays again winter here in large numbers. From 1939 to 1946, only 13 Blue Jays were seen on 7 censuses; this year 35 were seen on census day. Red-breasted Nuthatches seem to be absent from the Lakehead. They are not uncommon however at Atikokan where Mrs. Peruniak reports a terrific crop of cones on the Black Spruce. White-breasted Nuthatches are appearing regularly at several feeding stations; from 1939 to 1957, it was so scarce it was reported on only the 1945 census period. The Brown Creeper has rarely been reported here in winter. This year, Brown Creepers have been seen at two widely-separated feeding stations.

Wrens to Starlings: Records of individual Robins have been received as well as one flock in the Kaministiquia Valley. The Mountain Bluebird seen on the census has been noted above.

Although Bohemian Waxwings appeared in large numbers at Duluth in early winter and were also recorded by Mrs. Howe at Dryden, none has been seen at the Lakehead despite the heavy crop of fruit on the Mountain Ash. Cedar Waxwings are present been on a few previous occasions. Despite the fact that Starlings have learned to migrate, great numbers are wintering here finding plenty of food on the Mountain Ash and about feeding stations. Many of them would prove sorry specimens due to their singular habit of perching on chimneys on cold days often scarcely visible due to the smoke rising about them. Northern Shrikes have been very scarce. The only one reported to us was seen by P. Nunan at Whitefish Lake on October 29.

Blackbirds: Rusty and Red-winged Blackbirds were fairly common in mid-October. A mixed flock of 200 was seen on October 20. On December 13, a Rusty Blackbird was reported at the Empire Elevator, Fort William. This bird was still present on January 7. Another was seen east of Port Arthur on December 22. These are the first winter records of the Rusty Blackbird at the Canadian Lakehead.

Evening Grosbeaks to Snow Buntings: Evening Grosbeaks were first seen on November 23 but their numbers rapidly increased and the 204 reported on the Christmas census was an all-time record. Purple Finches rarely winter at the Lakehead but 4 appeared at the Hogarth feeding station on January 14. Despite the heavy crop of Mountain Ash, or possibly because this food is so prevalent throughout the forest, Pine Grosbeaks are present in the Cities in small num-

bers. They first appeared on November 11. Pine Siskins ar relatively common. Common Redpolls are seen daily in small flocks. Tree Sparrows appeared on October 20 but were never abundant. Rarely seen in winter, one was identified in Neebing Township on January 15 by J. Murie. The Song Sparrow, first seen on December 15, was another rare winter resident. Three spent the winter of 1960-61 in the same area. The Slate-colored Junco is another species which occasionally winters here; three were seen on December 22. Snow Buntings moved through the region during the last few days of October. A flock of 35 was seen on December 22.

During this controversial period when pesticides are receiving so much attention, it is interesting to know that Canadian scientists are attempting to attack injurious insects by biological means. Experiments include the use of viruses and parasitic insects. Most unusual of these experiments however is the use of the Masked Shrew. In 1958, the Canadian Department of Forestry trapped 22 of these shrews, among the smallest of mammals, and released them in Newfoundland, in an area suffering from the ravages of the Larch Sawfly on the pupa of which the Masked Shrew is known to feed. Trapping a year later in a 36-acre area, yielded 130 shrews including 11 of the original stock. In 1962, Masked Shrews were trapped 10 miles from the area where they were introduced. The effect of the introduction on the Larch Sawfly will not be fully known for several years.-Regional Laboratory, Ontario Department of Health, Fort William, Ontario.

# NOTES OF INTEREST

UNUSUAL WINTER RECORDS FOR ST. CLOUD: Once again Ruby-crowned Kinglets were seen in the St. Cloud area this winter. Two birds were seen feeding in the evergreens near my home at Sauk Rapids, Benton County on December 15, 1962. The birds were not seen again. On December 8, 1962 a warbler was seen and heard in my yard at Sauk Rapids. It was slender and somewhat drab in color, a gray and olive mixture. The bird was alert and too anxious to be identified positively. On December 11, 1962 a YELLOW WARBLER was sighted in a small apple tree near the home of Pauline Lepinski in St. Cloud. It could easily be distinguished. It picked on the tree for a while and then left. Monica Misho, Sauk Rapids, Minnesota

EDITOR'S NOTE: The above December records for warblers and Ruby-crowned Kinglets in the St. Cloud area and the following report of a Yellow-breasted Chat in Fargo, North Dakota are highly unusual. In December 1961 (Flicker Volume 34, No. 1) there was a report of a Cape May Warbler at a feeder in St. Cloud. These reports indicate that a few of these birds, that are normally far south of Minnesota at this time of year, are passing through this area this late in the year for unknown reasons. It is hoped that birdwatchers from these areas will be on the lookout for these unusual occurences during 1963. Please report these observations to the editor with as detailed reports as possible.

YELLOW-BREASTED CHAT AND RUFOUS-SIDED TOWHEE WINTER-ING IN FARGO: Here is a record to end all records — well, at least two of them! A Yellow-breasted Chat chose Fargo as a wintering spa instead of its customary Central American habitat. It was seen visiting in the yard of Mrs Arthur Burt from November 12 until December 15, 1962 and was observed also by Dr. O. A. Stevens and myself. It fed on the ground under a dense pine hedge, coming at intervals during the day. Almost as unusual, a Rufous-sided Towhee arrived on our terrace on January 13, 1963, and has been with us every day since. During the coldest weather (-25) the bird stayed on a pine branch that is in a pot on the porch right by the window, never leaving it except to go on the terrace to eat sunflower seeds and mixed bird seed or eat snow. (I never observed it using the water which we keep heated for the birds.) The towhee is the first bird to arrive in the morning unless the Slate-colored Juncos beat it by a few minutes. The towhee leaves about five in the afternoon. The bird is much less timid than the juncos and sparrows who fly away when I tap on the window; it looks up to see what made them go and then continues eating. When the temperature goes above zero, which it did very seldom during January, it leaves the yard but is back at intervals to feed. Mrs. George A. Anderson, 1458 S. River Road, Fargo, North Dakota.

A NEW COUNTY RECORD FOR THE GRASSHOPPER MOUSE—On 2 January 1963, a Grasshopper Mouse (Onychomys leucogaster) was taken in the NE Quarter of section 17, Willmar Township, Kandiyohi County, Minnesota. This specimen, taken some 68 miles from the Minnesota-South Dakota border, represents the easternmost record in Minnesota. Although the Grasshopper Mouse has been previously taken ten times in the state ("Flicker" 34:30), most of the recent specimens were caught closer to the Minnesota-Dakota border.

The Kandiyohi County specimen was captured by hand after wandering into a residential garage near the Willmar city limits. The immediate area is surrounded by relatively undisturbed grassland, a small marsh and Foot Lake.

Only *Peromyscus* and *Microtus* were taken in this same area during the fall while snap-trapping.

The specimen was an adult female, total length 160 mm., tail 49mm., hind foot 22 mm., ear from notch 15 mm., and weight 33.8 grams. No parasites were found on the specimen. Both a study skin and skelton were prepared by Harvey Gunderson and are deposited in the Minnesota Museum of Natural History. Ben Thoma, Willmar Community College, Willmar, Minnesota. Harvey L. Gunderson, Minnesota Museum of Natural History, University of Minnesota, Minneapolis 14, Minnesota.

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BOREAL OWL CAPTURES NORTHERN FLYING SQUIRREL—About midnight on January 5, 1963, Mr. and Mrs. Gordon McLaren, Paipoonge Township, Thunder Bay District, Ontario, observed a small owl attacking a Northern Flying Squirrel on the ground outside their home. Predator and prey were readily captured and I subsequently identified the attacker as a Boreal Owl. The squirrel thrived on bread and honey; the owl died on January 9. During the four days it was kept in captivity, the owl ate a mouse but refused to eat hamburger. We have been unable to find any previous record of a Boreal Owl attacking prey of this size.

Bent (Life Histories of North American Birds of Prey. Part 2 1938) states small rodents and insects are the chief food of the Boreal Owl, although small birds are also taken. One kept in captivity by R. V. Lindsay (Can. Fd. Nat. 1928, Vol. 42, p. 209) preferred mice to sparrows, but when neither was available raw meat was accepted. Two mice a day satisfied its food requirements. One which I caught by hand in a spruce swamp east of Port Arthur, on March 10, 1940, disgorged a pellet containing the remans of a Red-backed Vole. (Allin, A. E. The Flicker 24: (2): 29-93, 1952). A Boreal Owl was taken near Schreiber, in a trap set for fur-bearers, in December, 1959, suggesting they may at times resort to scavenging.

Did the Paipoonge Township owl attack such unusual prey as a Northern Flying Squirrel because of hunger? If so, why did it refuse hamburger in captivity when raw meat satisfied Lindsay's bird when the usual food was not available? We do not have an answer to these questions nor as to why it died. Our experience with this species leads us to believe that many of these birds die probably from starvation, when they migrate from their northern homes. In 25 years at the Canadian Lakehead, we have 13 records of Boreal Owls. Six were in March, 3 in November, 2 in December, and one each in January and May. Five of these 13 were found dead; one was taken in a trap, and our present specimen survived only 4 days in captivity. Bent refers to death by starvation of great numbers of Boreal Owls which invaded the New England States in the winter of 1922-23. A. E. Allin, Regional Laboratory, Ontario Dept. of Health, Fort William, Ontario.

PRELIMINARY OBSERVATIONS ON THE YELLOW RAIL IN A BECKER COUNTY MARSH—On 20 and 27 June, 1959; 18 June, 1960; and 17 June and 4 July, 1961, visits to a wire grass marsh in Northern Becker county, Minnesota were made by members of the Avifaunal Club. On each occasion Yellow Rails were heard, sighted, or captured and a specimen was taken on 18 June, 1960. This specimen was turnd over to the University of Minnesota Museum of Natural History.

The marsh is located on the Becker-Mahnomen County line about two miles west on highway 59. It is approximately two miles long and ½ mile wide and is intersected near its northern limits by the county line road, hence it lies mainly in Becker county.

Being an extensive marsh, a considerable variation in water depth exists and the rails (and the snails they feed on) are partial to those deepest portions of the marsh that lie in five to six inches of water. The vegatation is about knee-high. In June, 1959 the water was higher than in June of 1960, and the Yellow Rails were found close to the county line in 1959, but were absent from this part of the marsh in 1960 and 1961.

When we located water of the proper depth, we found both the snails (Succinea Retusa) and the Yellow Rails right away even though the rails were not calling while we were there (1960). On 4 July, 1961, only one rail was heard and none were sighted. The area was nearly dry. A few snails were present.

Thus far, the following observations seem to hold:

- Yellow Rails prefer an extensive marsh of wire grass where varying depths of water can be found.
- In June, Yellow Rails prefer water five to six inches in depth where the snails are found (no snails sighted in more shallow water).
- Yellow Rails can be located even when they are silent by locating the snails first.
- 4. Yellow Rails flush more readily earlier and are more reluctant to fly as the season progresses.
- Yellow rails prefer wetter areas in spring but as the marsh dries up later in the season they exist in the dry areas where their diet probably consists of insects rather than snails.

Still to be determined is what forces present cause these rails to call constantly on one occasion, and almost not at all on another occasion when conditions seem identical. The 20th of June, 1959, and 18th of June, 1960, were nearly the same in relation to weather conditions and the time of day for both visits were at dawn. One reason may lie in the fact that the spring of 1960 was colder than that of 1959 and nesting may have begun later in 1960.

Other bird species found in marsh: Greater Prairie Chicken, Marbled Godwit, and Upland Plover (dry portions); Short-billed Marsh Wren, LeConte's Sparrow, and Bobolink (wet to 3 inches); Sharp-tailed Sparrows (3" to 5"); and Yellow Throat (entire area).

Visits were made to the area on 30 May and 8 June, 1962. The May visit was in the early morning while the June visit was made after supper-time 7:30 p.m.) Yellow Rails were calling fairly regular both times but more so during the evening visit. One rail was captured on May 30th and another was flushed no less than six times. It flew a great distance each time. Three were flushed during the evening visit and all flew strongly for this species and ran readily. Heavy continual rains have raised the water level to the highest in four years. Depth of water ranged to 13 inches. Only a very few snails present.

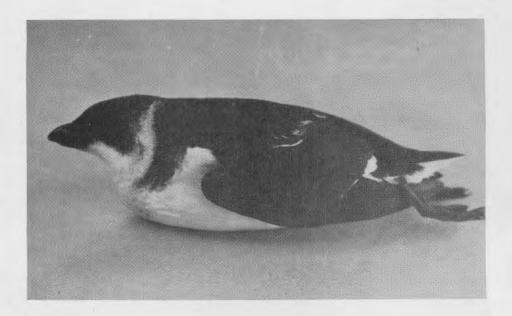
A visit on 23 June, 1962, resulted in the taking of an adult male with enlarged testes and the finding of a nest with hatched eggs (5 or 6). The fact that the egg shells were not removed from the nest would lead one to believe that the young must leave the nest immediately upon hatching and that once all eggs are hatched the interior of the nest is of no further use. No birds would flush despite intensive efforts to make them do so. The one captured was literally stomped into the water and picked up. William R. Pieper, 2702 Kentucky Avenue N., Minneapolis Minnesota.

A SECOND MINNESOTA DOVEKIE RECORD — On Novmber 5, 1962 Mr. Tim Broberg of Grand Rapids, Minnesota found a male Dovekie (*Plautus alle*) on Wabana Lake in Itasca County Minnesota. The bird was alive but apparently unable to take off from the water and it was taken in a landing net. Mr. Broberg who is a student in the Grand Rapids High School, brought the specimen to his biology teacher Mr. Richard Rudquist. Mr. Rudquist recognized the bird and persuaded Mr. Broberg to send the specimen to the Minnesota Museum of Natural History. We are much indebted to both these men for the preservation of this very rare specimen. It is now specimen #18603 in the Museum's collection. (See photograph below)

The only other record for this species in Minnesota was that of a male bird shot by an Indian on Lake of the Woods on Nevember 13, 1931. This specimen is also in the Museum's collection.

The Museum's files contain another record of interest in this connection. Dr. Gustav Swanson now head of the Department of Conservation at Cornell University in Ithaca, New York wrote the following after a trip to Lake of the Woods during the summer of 1932:

"In Kenora, at the Department of Indian Affairs, Captain Edwards showed me a mounted specimen which had been brought to them in the flesh by an Indian who had shot it on Lake of the Woods about November 1930. Having seen the Minnesota specimen so recently I am reasonably certain that it is this species, but no descriptions were available up there.—W. J. Breckenridge, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.



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# THE FLICKER

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#### FRONT COVER

Photograph of an adult Herring Gull taken at Grand Marais, Minnesota by Don R. Mathieson, M.D.

## PRESIDENT'S PAGE

I have often wondered what influence the right books have in directing a persons steps toward the pursuance of a hobby or even a vocation. I believe that, more than anything, the books of Zane Grey and Edgar Rice Burroughs started me toward becoming an avid reader. Probably no professor of literature would advocate these authors as models for future reading, nor stepping stones toward the ideals of "great" literature. Yet, I did become an omnivorous reader and have enjoyed Shakespeare, Proust, et. al, and I don't believe it was in spite of Grey and Burroughs.

I can't say my ornithology career was influenced greatly by a progressive reading development either. Being brought up in a small farming community, where there was no authority and no one who evidenced even a slight interest in birds, the only work available for a budding ornithologist was Burgess's "Book on Birds." The first "bird book" I read was Robert's "Birds of Minnesota," which I borrowed from the State Public Library, and my first identification material came from the old Arm and Hammer bird cards, and a picture contest in Capper's Farmer.

Since the time I grew up in ornithology, the study of birds as a hobby has grown by leaps and bounds, and bird books are common at all levels of training. I believe, however, that many people get very little beyond the Arm and Hammer stage of reading, some because they will not let their intellectual will carry them beyond this point, and others, because they have no guidance toward selection of books which will lead them progressively up the ladder of their hobby.

For fun, I have drawn up my own list of books that I regard as the books I would choose to start an individual toward the progressive development of his hobby. Others might not agree with the particular choices, but I think would choose books that are quite similar.

- 1. The first class is the real beginner, one who shows an interest, but who has only his or her natural intelligence as far as a knowledge of birds is concerned. For them, I would choose Roger Tory Peterson's "How to Know the Birds." A paper-back edition at 50c is available, and a new revised bound edition at \$3.50. This book would give the fundamentals of identification for the most common birds one would find. It would have the advantage of not having too many birds for the beginner to absorb and confuse, plus the added advantage of identification by patterns and not colors. Identification by colors is one of the commonest mistakes of the beginner. First, color patterns are often different in sexes and different age levels, and secondly, color patterns are often confused by the available light. I think that if I was directing the development of a budding ornithologist at this stage, I would likely tell him to stay away from colored plates entirely.
- 2. After the beginner has advanced far enough to operate efficiently with this book, I would have him purchase Roger Tory Peterson's "Field Guide to Birds." The same principles are carried out here, but the variety has grown and there are more plumages to consider. Along with this, I believe it would be time to start learning the bird songs. This type of identification comes only with practice, but the new records such as the Peterson "Field Guide to Bird Songs" can be of great help. It is now time to introduce the beginner to the birds that normally occur in the area. A local checklist is frequently available and the beginner should be taught that anything that

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does not occur on the list, most likely is so rare that his identification is immediately suspect. Any bird that does not fit the known avifauna of the area should be checked and double-checked and other opinions should be

gotten before it is reported.

Along about this time, the beginner should know something about the habits of birds and something about the way they are constructed. The lack of this knowledge is one of the reasons interested birders never get above the beginner class. My personal choice for books to start the beginner on the way to a greater knowledge would be Lois and Louis Darling's "Bird" and A. A. Allens "The Book of Bird Life." These two books are written with little technical jargon and are well illustrated. They are not too technical to read, but are scientifically correct and worth while.

3. If the beginner has absorbed this material, then he can get amateur standing. Note, in my book, one who will not progress this far, can only be considered a beginner, no matter how well he can identify birds in the field. I would advise the beginner who wishes to progress, to next read books such as Berger's "Bird Study," Welty's "The Life of Birds," or Van Tyne and Berger's "Fundamentals of Ornithology." There may be others equally as good, but these are my favorites. I would follow this up with a concentrated study, and I believe nothing is as good as Pettingill's "Laboratory and Field Manual of Ornithology."

It is my belief that an individual who has followed this reading course of study has reached a stage about equal to someone who has completed a college course in introductory ornithology. His principal lack is the contact with a professional, and so perhaps, still has not achieved an understanding or feeling for research. A person with the means and time could best get this through attendance at a biological field station such as one at Douglas Lake in Michigan or Itasca in Minnesota. The next best thing is the regular reading of scientific journals and attendance of paper sessions at the annual meetings of professional organizations. The primary organizations and journals in the United States are the American Ornithologist's Union and its publication "The Auk:" the Wilson Ornithological Society with its "Wilson Bulletin", the Northeastern Bird-banding Association and the Magazine, "Bird-Banding;" and finally the Cooper Ornithological Society and "The Condor."

Sincerely,
P. B. Hofslund
President

Allen, A. A.—The Book of Bird Life, Van Nostrand \$9.75.

Berger, A. J.—Bird Study, Wiley \$9.00.

Darling, L. and L.-Bird, Houghton-Mifflin, \$5.00.

Peterson, R. T.-Field Guide to Birds, Haughton-Miffin, \$4.95.

-Field Guide to Bird Songs, 331/3 R.P.M, Houghton-Mifflin, \$10.95.

—How to Know the Birds, Houghton-Mifflin \$4.50, Signet Paper back 50c.

Pettingill, O. S. Jr.—Laboratory and Field Manual of Ornithology, Burgess, \$5.00 Van Tyne J. V. and A. J. Berger—Fundamentals of Ornithology, Wiley, \$11.75. Welty, J. C.—The Life of Birds, Saunders, \$9.00.

# Experiences in Tape Recording Bird Songs in Southeastern Minnesota

by Nelson W. and Florence B. Barker

During the past six years we have spent considerable time in an attempt to tape record bird songs and characteristic call notes in southeastern Minnesota, specifically in Olmsted, Fillmore, Houston, Winona and Wabasha Counties. This article is written for the purpose of sharing our experiences with others who are or who may become interested in pursuing this fascinating and rewarding nature study.

In attempts to tape record sounds of nature some basic knowledge of the principles of audio-engineering and available equipment is desirable. Identifiable tape recordings of bird songs may be made with almost any standard type of tape recorder if the bird is within relatively close range. However, the weak feature of almost all such tape recorders is the simple inexpensive microphone which is supplied with most of these instruments. These microphones have a limited range and relatively poor fidelity. We have used two Revere tape recorders Model T 700 D. One of these has been kept in our house for recording the back yard. The other has traveled more than 5,000 miles on the back seat of our automobile and frequently over rough roads. It has been exposed to dust, heat, cold and dampness. Both machines have had heavy usage in reviewing tapes with much starting, stopping and forward and backward rewinding. In spite of six years of rough usage, these Revere recorders have required a minimal amount of service and no replacement of parts. They are easily operated by means of keyboard controls with solenoid switches which permit instant starting at optimal speed. More expensive and probably better tape recorders are available and are used by most professionals, but we doubt that they will produce better results in the hands of amateurs. Many good professional type microphones are available. We have used two, an Astatic Corporation Model No. 77, which is semi-directional, and an Electro-Voice Model 123, which is multi-directional. Both of these microphones have good range and excellent fidelity, particularly for high frequency signals. The microphone should be connnected with the recorder by a shielded cable. For the most part we have used the low-impedence settings on the microphones. This necessitates the insertion of a special transformer unit close to the tape recorder. The low-impedence settings permit the use of a shielded cable, 200 feet long if desired, without transmission of any 60 cycle hum or other interference. Our Revere tape recorders have adequate speakers, particularly for the playback of the frequency ranges of bird songs, and we have not found that additional speaker equipment was necessary.

The chief problem encountered in recording bird songs in the field is the power supply. Rather expensive recorders are available which may be operated directly from batteries, but the whole unit is cumbersome and difficult to transport. The currently available less expensive battery operated and easily transportable tape recorders have a limited range and a tendency to introduce a transistor hum into the recording.

We have done all our recording in the field from our automobile using one of the AC operated Revere tape recorders and using an inverter. The inverter is connected with the 12 volt DC automobile battery and changes the power supply to 110 volt 60 cycle alternating current. The inverter which we have used is Model RHG, made by the ATR Manufacturing Company, St. Paul, Minnesota.

Almost all our recordings have been made at a tape speed of 71/2 inches per second. This produces recordings which have a little better fidelity than those which are made at a tape speed of 33/4 i.p.s. Theoretically still better fidelity can be obtained at a tape speed of 15 i.p.s. which is possible only with the expensive professional tape recorders, but it is doubtful that this improvement in fidelity can be detected by the average listener. As demonstrated in the disk recordings of bird songs made by Jerry and Norma Stillwell, some interesting and beautiful effects may be produced by playing recordings of some bird songs at half speed which reduces the pitch one octave, or at quarter speed which reduces the pitch two octaves. It is possible to analyze in more detail many rapidly uttered song phrases by playing them back repeatedly both at the recorder speed and at half this speed.

equipment Using the described above, we have had little difficulty in obtaining identifiable tape recordings of many of the bird songs of our district which have been suitable for study and analysis. However, we have found that obtaining really good recordings, which are suitable for demonstrations, requires persistence, patience and a certain amount of luck. As in bird photography it is necessary to be at the right place at the right time and under just the right conditions. A really good recording should have a high signal to noise ratio, good fidelity and no interference from the songs of other birds. There is always some background noise in the out of doors and the signal, that is the desired bird song, is almost always relatively weak, since the singer is never really close to the microphone. In order to get a loud signal it is necessary to record most bird songs with considerable amplification and this also amplifies the background noise. It is particularly difficult to get a good signal to noise ratio when attempting to record very weak songs like those of the Blue-winged Warbler and Eastern Kingbird. It is obvious that the

closer one can get the microphone to the singer, the higher the signal to noise ratio. This is more easily accomplished for some species of birds than for others. Noise is always a problem. We have had many otherwise good recordings that have been spoiled by airplanes, passing automobiles, farm tractors, power lawn mowers, human voices, barking dogs, thunder and rain, insects and frogs singing in marshes. Even when these are absent there is the problem of wind. Wind produces a low pitched hum and rustling in the trees and undergrowth which may be audible even at a considerable distance in the highly amplified recordings which are necessary to obtain an adequate signal. Also winds, even as low as 12 to 15 miles an hour, produce a fluttering sound as they blow across the microphone and will usually spoil recordings made in open country. We have been unable to devise or obtain any type of microphone covering or wind shield which will eliminate this sound or even reduce it. In order to get a loud enough signal, we have found that it is usually necessary to increase the amplification to between two-thirds and three quarters of the maximal setting of the dial. Beyond the three-quarters mark some motor noise from the recorder is introduced and a 60 cycle hum from the inverter may be picked up through the line cord.

Over-recording, that is recording with too much amplification, will produce distortion of the signal. In recording bird songs this is an infrequent problem, but may arise if the microphone is quite close to the singer or if the song is particularly loud.

Most professionals who record bird songs use a parabolic reflector whereever possible. The microphone is mounted at the focus of the parabola facing the concave surface. The physical principle which is utilized is that all sound waves which originate in front of the parabola and in or close to the line of its axis are reflected from the surface directly to the focus and are concentrated at this point. With the parabola facing a singing

bird the signal to noise ratio is significantly increased. With other conditions equal, better and more clear recordings of bird songs can be obtained with a parabolic reflector. However, the most important requirement in recording bird songs and obtaining the best signal to noise ratio is to have the microphone as close as possible to the singer. Actually, we have found that we could obtain better recordings at a distance of fifty feet without a parabola than at a distance of 150-200 feet with a parabola. It is difficult or often impossible to manipulate a parabola into the desired position without frightening the bird. An automobile serves to some degree as a blind, since birds seem to be less frightened by it than they are by a moving human being. Frequently we have been able to drive our automobile to within 50 feet of a bird, which was singing from a fence or electric wire along a roadside, and record the song satisfactorily without attempting to use the parabola, whereas any attempt to aim the parabola at the bird immediately frightened it away

We have used a large 40 inch parabolic reflector for recording in our backyard. The parabola is mounted in a U frame on a table so that it can be both rotated and tipped. We have also used a smaller 27 inch parabola, which is more easily transported, for recording from automobile. However, more than half of our good recordings have been made without the parabola. In the yard, the microphone has been simply placed on a stand outside of a window and the operator tape recorder are inside the house. In recording in the countryside, the microphone has been held on a small wooden bracket which is hung from the edge of one of the rear windows.

Many tape recorder operators use headphones to monitor the signal and determine the optimal amplification. We have found it more satisfactory to monitor directly through the speaker of the tape recorder. This can be done without encountering feed-back except at very high amplifications. When recording from the automobile it is usually necssary to close the windows, but this should be done anyway to avoid picking up the hum of the inverter through the microphone.

Obviously many unsatisfactory recordings are made in order to get a few good ones. The original tapes can be edited by transfer. In this procedure two tape recorders are used The original tape is played on one recorder and the output of this recorder is directly connected by wire to the input of the receiving recorder on which only the desired portions are re-recorded. One can make two such transfers without introducing any significant amount of extraneous noise or affecting the fidelity of the signal.

It has been our experience that the most productive months for recording bird songs are May and June. We have obtained some good recordings, particularly of the songs of early spring migrants and winter residents, but during March and April, trips during these months are relatively unproductive even when the weather is favorable. More songs may be heard in May than in any other month since most of the birds that nest in the area are singing and in addition quite a few migrating species sing as they pass through on their way north. The chief problem in recording bird songs in May is that too many birds are singing at one time, so that it is often difficult to get a good recording of the song of one bird without some interference from other singers in the immediate vicinity. We have obtained a number of good recordings in July. Weather conditions are often more favorable during this month, and although fewer songs are heard, this very fact makes interference from the songs of other birds less of a problem. After August 1 relatively few songs are heard in southeastern Minnesota and very few are heard after August 15.

In recording from the automobile we have found it most productive to drive slowly along the secondary roads and lanes where there is little automobile traffic. As soon as a song is heard at relatively close range, the car is stopped, the motor turned off and the microphone is hung on the window. The recorder is turned on with only the speaker key depressed. If the signal to noise ratio seems satisfactory, the song is recorded and continually monitored during this period. If conditions are favorable a second recording is then attempted with the parabola in order to try and get an even better signal to noise ratio.

By repeated exploration we have found a number of areas in southeastern Minnesota where recording is particularly productive from the roadside. In a number of instances we have located a bird of a certain species whose song we wished to record and then later made a special trip back to this spot when recording conditions were particularly favorable.

We have found that it is virtually impossible to obtain good recordings when there is much wind. Even light winds have spoiled many otherwise good recordings in the open country. When this occurs we usually proceed to a wooded area or small protected valley. Because of wind, early morning and evening are frequently the best times of the day for recording and also because most birds are apt to sing during these periods. However, we have recorded many good songs during the late morning. Afternoons are usually the most unproductive time of the day.

Approximately a third of our good recordings have been made in our own backyard which is located near the southwestern edge of Rochester. Here we are particularly fortunate in that we have a number of large trees and considerable shrubbery. The back of the yard adjoins a heavily wooded hillside and on one side of the yard there is a small, unimproved, brushy valley. The natural attractiveness of the area for birds has been augumented

by the addition of feeding stations and a small, shallow, ground level pool. We have observed representatives of 85 species of birds in this small area during the past twenty years, some of them casual, but many of them regular visitors during at least some period of each year. We have recorded the songs of more than 50 species in our yard during the past six years. Some of these recordings made during the May migration, have been quite fortuitous. For example, we have recorded songs of the Olive-Flycatcher and Swainson's Thrush, which rarely sing during their migration through southeastern Minnesota.

Among the less common songs that we have recorded in southeastern Minnesota is that of the Lark Sparrow. We found a small colony of these birds in a localized area in Marion Township of Olmsted County and have heard and recorded the song each year for the last six years sometime during the last week of April or the first two weeks in May. We have not heard the typical song anywhere else in the district or at any time after the middle of May. In southeastern Minnesota we have only heard and recorded the Veery near Forestville in Fillmore County. A few pairs of these birds nest in this area annually. In the December 19, 1961 issue of the "Flicker" there appeared an article by Ronald L. Huber entitled "Nesting Bell's Vireos Banded in Houston County." The banding was carried out in the second week of June of 1961. Having read the article, we located a Bell's Vireo in what we think was exactly the same area near Reno in southeastern Houston County one year later and were able to get a very good recording of its song. This is the only time we have heard a Bell's Vireo sing and although birds of this species have been reported in eastern Winona County also, they are certainly not common in southeastern Minnesota.

During the past six years we have recorded the songs of eighty-eight

species of the land birds of southeastern Minnesota. We have found that recording bird songs is a stimulating and fascinating hobby and as in many other nature studies is one which offers a continual challenge. Each day that we start out on a recording field trip we are hopeful that we will be able to get a recording of the song of a new species or better recordings of the songs of species previously recorded and usually we are not disappointed. 920 10th Street S. W., Rochester, Minnesota.

# Winter Bird Life as Seen by the Christmas Counts

by Janet C. Green

In summarizing the 1962 Christmas Counts taken in Minnesota I found that a picture of the regular bird life occurring in the state at that season was necessary before meaningful interpretation could be made. Since my own personal experience did not cover the whole state, I turned to the most comprehensive data available: the Christmas counts themselves. I wanted to know exactly how unusual or usual the occurrence of a particular species was in various parts of the state and, therefore, the results of my analysis are a grouping of the species according to their abundance. I hope that the picture thus presented will offer a base on which others can compare the results of their winter birding during late December early January and broaden knowledge of bird life in Minnesota.

Description of the data used. Since the early Christmas counts were usually conducted in a smaller area than is the current practice and consequently produced fewer species, I have taken the recent counts, those in the twelve year span from 1950 to 1961, to form my basic data. I have used all the counts that appeared in the Audubon Field Notes and The Flicker for this period, each source providing a few counts that were not duplicated by the other. A total of 165 counts was studied. Only the occurrence of a species on a count, not the total numbers of each species seen, was used for a basis of comparison. This restriction was necessary to simplify the comparisons. Since Minnesota is a large state and the picture of the winter bird life has many features that would vary from north to south, I have broken up the state into three areas defined as follows: north—north of 46° 15' (approximately the latitude of Brainerd); central—between 46° 15' and 44° 30'; and south—south of 44° 30' (approximately the latitude of Redwood Falls). There have been 42 counts in the north, 93 in the central, and 30 in the south. The species have been divided into categories depending on the number of counts on which they have appeared. The definition of these categories and the species involved follow.

Rare species. These species appeared only on one count during the twelve years. A few of them were doubted by the editor of the Audubon Field Notes because no substantiating details were included and these species have been put in parantheses and were not counted in the total number of species seen. A few of them were seen once during the six years prior to 1950 (data from The Flicker, Sept., 1954) and these have been starred. The rest have only been seen once in eighteen years. Only a single bird was seen each time with the exception of Greater Prairie Chicken (46 counted), Vesper Sparrow (4), and from one to three birds counted for the various species of ducks. The rare species are Common Loon\*, Horned Grebe, White Pelican, Snow Goose, Gadwall, American Widgeon\*, Redhead, Harlequin Duck, White-winged Scoter, Harlan's Hawk, (Broad-winged Hawk), Pigeon Hawk, Greater Prairie Chicken, Virginia Rail, Iceland Gull, Hawk-Owl, Black-backed Threetoed Woodpecker, Black-billed Magpie,

Brown Thrasher. Catbird. Varied Thrush, Myrtle Warbler, Yellow-headed Blackbird, Vesper Sparrow\*, (Chip-Sparrow). (Field Sparrow). ping Swamp Sparrow. In addition, there were three species seen in the six years prior to 1950 that were not seen later: Pied-billed Grebe, Red-necked Grebe, Rufous-sided Towhee. brings the total number of species designated as rare to 27.

Very unusual species. Species seen two to four times during the twelve years, 1950 to 1961, have been designated as very unusual. Except for the Bobwhite they were seen in small numbers (from one to six). The species reported only from a particular area are so noted. The very unusual species are Whistling Swan, Blue Goose, Green-winged Teal, Shoveler, Ring-necked Duck, Canvasback, Greater Scaup (Duluth), Ruddy Duck, Turkey Vulture (Plainview), Sharptailed Grouse (NE Minn.), Bobwhite (SE Minn.), Great Gray Owl, Short-eared Owl, Boreal Owl (Duluth), Saw-whet Owl, Winter Wren, Carolina Wren, Mockingbird, Eastern Bluebird, Rubycrowned Kinglet, Brown-headed Cowbird, Hoary Redpoll, Harris' Sparrow, Fox Sparrow. This category includes 24 species.

Unusual species. Species seen from 5-15 times are included in this category. Those usually seen in the northern part of the state (including the northern half of the central region) are designated (N); those usually seen in the southern part, (S). These species are usually seen in small numbers unless otherwise noted. The unusual species are Great Blue Heron (S), Canada Goose (S; 2-3000 at Rochester), Pintail (S), Wood Duck (S), Lesser Scaup, Bufflehead (N), Oldsquaw (N), Hooded Merganser (S), Red-breasted Merganser, Sharp-shinned Hawk (S), Cooper's Hawk (S), Red-shouldered Hawk (S), Marsh Gray Partridge. American Hawk, Coot (S), Killdeer (S), Common Snipe (S). Glaucous Gull (N). Ring-billed Gull (N), Screech Owl, Long-eared Owl, Yellow-bellied Sapsucker (S), Eastern Meadowlark (S), Western Meadowlark (S), Brewer's Blackbird (S), Red Crossbill (N), White-throated Sparrow, Lapland Longspur (150-250 counted a couple of times). This category includes 28 species.

Regular species. This category includes all species seen more than 15 times. Their frequency of occurance in the three regions is defined according to the percentage of counts on which they have appeared as follows:

Very common	90-100%
common	50- 90%
fairly common	25- 50%
uncommon	
unusual	
rare	
none	no counts

In addition, to give an idea of the number of birds counted under favorable conditions, in suitable habitat, and in an area adequately covered a column for the usual yearly highest count is given. To show what would be an unusually large number of birds censused in a count area a column for the maximum number recorded for a single count from 1950 to 1961 is given. These figures have been rounded off. The species regularly seen during the Christmas count period are listed in Table 1. Fifty-seven species are included.

Summary. A list of winter birds seen in Minnesota during December and early January as shown by the Christmas counts includes 136 species of which less than half are seen regularly. This list should not be considered the last word on winter bird life for it is hoped that future observations will lead to additions and perhaps corrections. However, to assure an accurate picture of bird life in Minnesota any future reports of the observation of species not on this list or even species designated as rare should be accompanied by substantiating details. 1923 Greysolon Road, Duluth 12, Minnesota.

### TABLE 1. REGULAR WINTER SPECIES

Species	North	Central	South	Usual Highest Number	Maximum Highest Number
Mallard	uncommon	common	common	500	950
Black Duck					400
	unusual	fairly common	uncommon	100	500
Common Goldeneye	fairly common	common	uncommon	200	
Common Merganser	uncommon	uncommon	uncommon	40	75
Goshawk	unusual	uncommon	none	1	2
Red-tailed Hawk	unusual	fairly common	common	6	10
Rough-legged Howk	uncommon	uncommon	fairly common	3	5
Bald Eagle	uncommon	unusual	uncommon	3	5
Sparrow Hawk	rare	fairly common	fairly common	4	7
Ruffed Grouse	common	fairly common	unusual	15	25
Ring-necked Pheasant	common	very common	common	200	500
Herring Gull	fairly common	unusual	none	700	1200
Mourning Dove	none	uncommon	fairly common	20	45
Great Horned Owl	fairly common	fairly common	fairly common	4	15
Snowy Owl	uncommon	unusual	unusual	1	
Barred Owl	unusual	fairly common	foirly common	ż	2 3
Belted Kingfisher	none	uncommon	fairly common	4	6
Yellow-shofted Flicker	unusual	uncommon	fairly common	5	8
Pileated Woodpecker	common	common	common	6	14
	none		common	15	18
Red-bellied Woodpecker		fairly common		ió	22
Red-headed Woodpecker	none	fairly common	uncommon	30	50
Hairy Woodpecker	very common	very common	very common		
Downy Woodpecker	very common	very common	very common	50	70
Horned Lark	unusual	unusual	fairly common	20	475
Gray Joy	fairly common	rare	none	4	20
Blue Jay	very common	very common	very common	200	300
Common Raven	common	rare	none	25	30
Common Crow	fairly common	common	common	150	650
Black-capped Chickadee	very common	very common	very common	250	400
Boreal Chickadee	fairly common	rare	none	4	8
Tufted Titmouse	unusual	fairly common	fairly common	10	16
White-breasted Nuthatch	common	very common	very common	75	100
Red-breasted Nuthotch	common	fairly common	fairly common	30	65
Brown Creeper	fairly common	common	common	8	11
Robin	fairly common	uncommon	fairly common	20	100
Golden-crowned Kinglet	fairly common	fairly common	fairly common	35	60
Bohemian Woxwing	uncommon	uncommon	none	250	300
Cedar Waxwing	fairly common	uncommon	uncommon	100	400
Northern Shrike	uncommon	fairly common	uncommon	4	8
Starling	common	very common	very common	750	1000
House Sparrow	very common	very common	very common	2000	4000
Redwinged Blackbird	very common	uncommon	fairly common	200	1200
Rusty Blackbird	unusual	uncommon	uncommon	35	50
Common Grackle		uncommon	uncommon	8	12
	unusual		common	100	150
Cardinal	fairly common	common	unusual	350	450
Evening Grosbeak	common	uncommon	fairly common	50	100
Purple Finch	uncommon	common	rare	150	300
Pine Grosbeak	common	uncommon	fairly common	500	800
Common Redpoll	common	common		50	150
Pine Siskin	fairly common	uncommon	unusual		
American Goldfinch	unusual	common	common	300	450
White-winged Crossbill	uncommon	unusual	unusual	40	65
Slate-colored Junco	common	very common	very common	350	500
Oregon Junco	none	fairly common	uncommon	4	11
Tree Sparrow	uncommon	common	common	500	1000
Song Sparrow	unusual	uncommon	fairly common	3	14
Snow Bunting	common	uncommon	unusual	200	250

# THE BIRDS OF WADENA COUNTY

by Richard Oehlenschlager

Based upon eleven years of observations and records, I have compiled a list of all positively identified species found up to the present time in Wadena County, Minnesota. Many of the observations have been additionally substantiated by collecting specimens, since I hold Federal and State collecting permits and a sub-banding permit held under the master permit belonging to Dr. Dwain Warner at the Museum of Natural History, University of Minnesota.

Wadena County is predominately a transition zone in Central Minnesota situated between the coniferous, prairie and deciduous regions; consequently, the terrain and vegetation types are quite variable. Jack and Norway pine, tamarack, and aspen lowlands interspersed with willowy sedge meadows dominate in the northern and eastern sectors of the county while deciduous species, mostly pin and burr oak, elm, maple, ash and basswood occupy the southern and western portions. The basswood and ash prevail in river bottom areas: box-elder are common in all major towns in the county. The southwestern corner of Wadena county is the most populous district and contains the most extensive area of cultivation. pastureland, and meadows. There are few lakes and large marshes in Wadena County and they are very insignificant as far as waterfowl and shorebirds are concerned. Most of the transient waterfowl and shorebirds follow the few rivers that cross the county from northwest to southeast. In general, the topography of Wadena County is moderately rolling, consisting of glacial soils that are quite sandy.

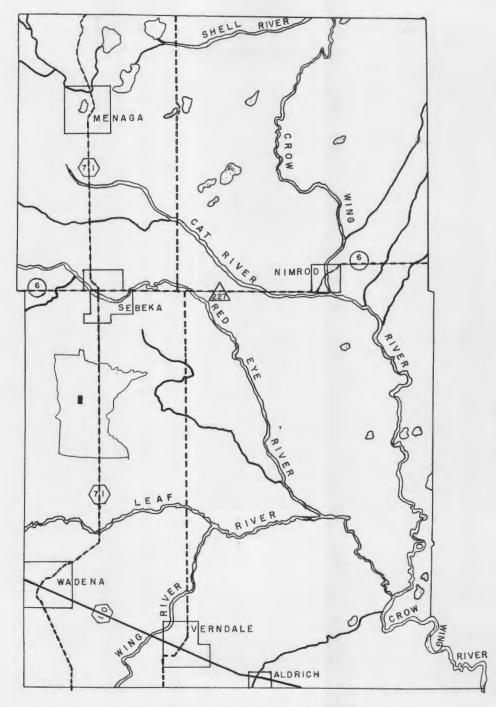
Up to the present time, I have positively identified 213 species in Wadena County, all of which I have treated in the following four categories:

- 1. Breeding species—species established on the basis of nests, flightless juveniles and collected specimens which have exhibited unquestionable breeding condition and behavior at the time of collecting. This group constitutes 91 species or 43.2% of the total species.
- 2. Unconfirmed breeding species—those which may be present (even abundant) during the summer (breeding season) and are apparently nesting though no nests, flightless juveniles or obviously breeding condition adults have been found or collected. This group is made up of 31 species or 15.5% of the total species.
- 3. Transients—migrant species present in spring and fall. Includes 73 species or 37.2% of the total species.
- 4. Winter visitants—northern species which may be present from October through April, representing 18 species or 4.1% of the total species.

In addition, I have included a list of hypothetical species—species whose identifications may have been incorrect due to poor conditions for observation. However, the identifications could have been correct, and one should look for them or class them as distinct future possibilities. The list is as follows:

- 1. Marbled Godwit
- 2. Orchard Oriole
- 3. Great Gray Owl
- 4. Black Duck
- 5. Gadwall
- 6. Prairie Falcon
- 7. Red-shouldered Hawk
- 8. Scissor-tailed Flycatcher
- 9. Kentucky Warbler
- 10. Gyrfalcon
- 11. Wood Thrush
- 12. Canvasback
- 13. Common Gallinule

The status of each species listed is based on the following key:



WADENA COUNTY

JUNE, 1963

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C—Common
U—Uncommon
R—Rare
V.R.—Very Rare
P.R.—Permanant Resident
(E)—Erratic
(W)—Winter Record

The letter used refers only to the category (breeding, unconfirmed breeding, transients and winter visitants) in which the bird has been placed. For example the Pied-billed Grebe is listed as being uncommon during the breeding season, but it is a common transient.

BREEDING SPECIES

	EDING	SPECIES	
Mallard	C	Common Crow	P.R.
Wood Duck	C	Blacked-capped	
Cooper's Hawk	Ü	Chickadee	P.R.
Red-tailed Hawk	Č	White-breasted	
Marsh Hawk	Č	Nuthatch	P.R.
Sparrow Hawk C		Red-breasted	1 .K.
Ruffed Grouse	P.R.	Nuthatch	P.R.
Greater Prairie	r.K.	House Wren	C
	D D	Long-billed Marsh	-
Chicken	P.R.	Wren	-
Ring-necked Preasant			C
Gray Partridge	R	Short-billed Marsh	
Virginia Rail	C	Wren	COOOOOO
Sora	C	Cathird	C
Killdeer	C	Brown Thrasher	C
Spotted Sandpiper	C	Robin	C
Black Tern	C	Veery	C
Rock Dove	P.R.	Eastern Bluebird	C
Mourning Dove	C	Cedar Waxwing	C
Black-billed Cuckoo	Č	Loggerhead Shrike	ü
Great-horned Owl	P.R.	Starling	P.R.
Long-eared Owl	U	Yellow-throated	
Saw-whet Owl	ŭ	Vireo	C
Common Nighthawk	č	Red-eyed Vireo	Č
Chimney Swift	č	Warbling Vireo	~
	-		~
Ruby-throated	_	Nashville Warbler	5
Hummingbird	Č	Yellow Warbler	
Belted Kingfisher	C	Myrtle Warbler	U
Yellow-shafted	_	Pine Warbler	U
Flicker	C	Ovenbird	00000000000
Pileated Wood-		Yellowthroat	C
pecker	P.R.	House Sparrow	C
Red-headed Wood-		Bobolink	C
pecker	C	Western Meadow-	
Yellow-bellied		lark	C
Sapsucker	C	Redwinged Blackbird	C
Hairy Woodpecker	P.R.	Baltimore Oriole	C
Downy Woodpecker	P.R.	Brewer's Blackbird	C
Eastern Kingbird	Ċ	Common Grackle	00000
Western Kingbird	č	Brown-headed	-
Great Crested	-	Cowbird	-
Flycatcher	_	Scarlet Tanager	CC
Eastern Phoebe	0000	Rose-breasted	-
	6		_
Traill's Flycatcher	C	Grosbeak	000
Least Flycatcher	C	Indigo Bunting	C
Eastern Wood		Purple Finch	- 0
Pewee			P.R.
Horned Lark	C	Rufous-sided Tawhee	C
Tree Swallow	CCC	Savannah Sparrow	DODOOOOO
Bank Swallow	C	Grasshopper Sparrow	U
Rough-winged		LeConte's Sparrow	C
Swallow	0000	Vesper Sparrow	C
Barn Swallow	C	Chipping Sparrow	C
Cliff Swallow	C	Clay-colored Sparrow	C
Purple Martin	C	Song Sparrow	C
Blue Jay	P.R.		

Marie Constitution of the	
	BREEDING SPECIES
Common Loon C Pied-billed Grebe U	Short-eared Owl R Black and White
Pied-billed Grebe U Great-blue Heron C	Black and White Warbler C
Green Heron R	Golden-winged
American Bittern C	Warbler C
Blue-winged Teal R Ring-necked Duck U	American Redstart C
Ring-necked Duck U	Chestnut-sided
Ruddy Duck R Turkey Vulture R	Warbler C
Turkey Vulture R	Mourning Warbler U Eastern Meadowlark U
Sharp-shinned Hawk R Broad-winged Hawk C	
Osprey R	Yellow-headed Blackbird U
Pigeon Hawk R	Cardinal V.R.
Yellow Rail R	Pine Siskin C(F)
American Woodcock II	Red Crossbill C(E)
Common Snipe U	White-throated
Yellow-billed	Sparrow U
Cuckoo U (E)	Swamp Sparrow U
Barred Owl U	
	NSIENTS
Red-necked Grebe U	Brown Creeper C(W) Winter Wren
Horned Grebe C	Winter Wren
Common Egret V.R.	Swainson's Thrush C Gray-cheeked Thrush C Hermit Thrush C Ruby-crowned Kinglet C
Whistling Swan C Canada Goose C	Gray-cheeked Thrush C Hermit Thrush C
Blue Goose C	Ruby-crowned Kinglet C
Blue Goose C Snow Goose C	Golden-crowned
Pintail U	Kinglet C
Green-winged Teal C	Water Pinit II
American Widgeon C	Sprague's Pipit V.R.
Shoveler U	Sprague's Pipit V.R. Solitary Vireo C Philadelphia Vireo R Tennessee Warbler C
Redhead R	Philadelphia Vireo R
Lesser Scaup U	Tennessee Warbler C
Redhead R Lesser Scaup U Common Goldeneye Bufflehead C Hooded Merganser C Common Merganser C	Orange-crowned
Bufflehead C	Warbler C
Hooded Merganser C	Parula Warbler R
Common Merganser C Harlan's Hawk R	Warbler C Parula Warbler R Magnolia Warbler C Cape May Warbler U
Ferruginous Hawk V.R.	Black-throated
Bald Eagle U(W) Golden Eagle U(W)	Blue Warbler R
Golden Eagle U(W)	Black-throated
Peregrine Falcon U	Green Warbler C
American Coot C	Blackburnian
American Golden Ployer V.R.	Warbler C
Solitary Sandpiper C Greater Yellowlegs C Lesser Yellowlegs C	Bay-breasted Warbler U
Solitary Sandpiper C Greater Yellowlegs C	Warbler U
Lesser Yellowleas C	Blackpoll Warbler C Palm Warbler C
	Northern Waterthrush C
Least Sandpiper U	Wilson's Warbler C
Semipalmated	Canada Warbler U
Sandpiper U	Rusty Blackbird C
Long-tailed	Slate-colored Junco C
Jaeger V.R.	Oregon Junco C
Herring Gull C	Tree Sparrow C
Herring Gull C Ring-billed Gull C Franklin's Gull C	Warbler Blackpoll Warbler C Palm Warbler Northern Waterthrush C Wilson's Warbler C Canada Warbler U Rusty Blackbird Slate-colored Junco Oregon Junco Tree Sparrow C Harris' Sparrow White-crowned Sparrow C Fox Sparrow Lincoln's Sparrow C Lapland Sparrow C Lapland Sparrow C C C C C C C C C C C C C C C C C C C
Double-crested	White-crowned
Cormorant R	Sparrow C Fox Sparrow C
Common Tern U	Lincoln's Sparrow C
Yellow-bellied	Lincoln's Sparrow C Lapland Sparrow C
Flycatcher U	Red-shafted
Olive-sided	Flicker V.R.
Flycatcher C	, , , , ,
WINTER	VISITANTS
Goshawk	
Rough-legged Hawk U	Bohemian II(E)
	Waxwing U(E) Northern Shrike C(E)
Roreol Owl P	Evening Grosbeak C(E)
Hawk-Owl U (E) Black-backed three- toed Woodpecker U	Pine Grosbeak C
Black-backed three-	
toed Woodpecker U	Common Redpoll C
Gray Jay U(E)	White-winged
Black-billed Magpie U Common Rayen U	Crossbill U(E)
Common Rayen U Boreal Chickadee V.R.	Snow Bunting C(E)
borear chickagee V.R.	
	Sebeka, Minnesota
	2000100, 112010100000

# THE SPRING SEASON

by Ronald L. Huber

WEATHER: March begin with the usual cold weather in the southern part of the state, while the Red Lake area in north-central Minnesota enjoyed unseasonably warm weather at scattered intervals throughout the month. Elsewhere in the state, temperatures alternated between normal and much warmer than normal. The last week of March brought a record-breaking warm spell to almost the entire state. During this period, considerable insect activity took place. The Mourning Cloak butterfly put in its appearance and Minnesota's first March records for three species of tiger beetles were secured.

The first week of April continued the warm trend. On April 6, an American Painted Lady butterfly was seen at Encampment River on the North Shore and an Angle-wing was seen near Fond du Lac, south of Duluth. Then temperatures dropped to normal until mid-April. On April 14, the Spring Agaristid moth and Milbert's Tortoise-shell butterfly had emerged in St. Paul. A few days later, strong southwest winds brought a few early migrants, taking their cue from the warm weather. A sudden cold wave arrived, including snow. Migration here was interrupted, and most areas seemed virtually birdless for about a full week after the storm. Then a few more early migrants arrived, some of them considerably ahead of schedule, while others were strangely late.

May began with warm sunshine and the usual migrants. By the end of the first week, however, the rain and cold allotted usually to April, had arrived. This continued for most of the month, interspersed with brief periods of warm, seasonable temperatures and sunshine. On May 4, American Toads were calling and Wood Anemones, Trout Lilies, Bloodroot, yellow and purple Violets, mint, Phlox and Bluebells were in bloom at Vasa, Goodhue County. A Tiger Swallow-

tail butterfly was seen the same day at Frontenac, Goodhue County.

This report covers the period from March 9 to June 1, approximately.

LOONS THROUGH CORMORANTS: Common Loon: April 5, Minneapolis, H. Huber; April 6, Kandiyohi County, Pauline Lastine; April 7, Clear Lake, Sherburne County, Avifaunal Club; Red-throated Loon: May 31, Duluth, St. Louis County, Dennis Meyer. Red-necked Grebe: April 12 Cokato, Wright County, Erma Christopher; April 15, Lake Washington, Carver County, Brother Theodore; April 18, Lake Vadnais, Ramsey County, H. Huber: April 27, Duluth, about 300, Jan Green.

Horned Grebe: April 7, Minneapolis, H. Huber; April 13, Frog Lake, Stevens County, E. Strubbe; April 26, Duluth, about 1200, Jan Green.

Eared Grebe: April 13, Frog Lake, Stevens County, E. Strubbe: May 5, Salt Lake, Lac Qui Parle County, R. Grant; May 30, Swan Lake, Nicollet County, 3 seen, R. Janssen.

Western Grebe: April 20, Lake Traverse, 9 seen, Avifaunal Club; May 30, Swan Lake Nicollet County, 6 seen, R. Janssen.

White Pelican: April 4, Swift County, E. D. Strand; April 6, Swan Lake, Nicollet County 45 seen, R. Janssen; April 7, Rice County, O. Rustad; April 19, Big Stone County, 1800-2000 seen, A. C. Rosenwinkel; May 30, Swan Lake, Nicollet County, 8 seen, R. Janssen. Double-crested Cormorant: April 2, Cokato, Wright County, Erma Christopher; April 6, Rice Lake, Hennepin County, R. Janssen; April 10, Winona, the Dahms.

HERONS, EGRETS AND BITTERNS: Great Blue Heron: March 16, Washington County, D. Honetschlager; March 22, Rice County, O. Rustad; March 23, Blaine, Anoka County, R. Janssen; March 27, Duluth (early), Jan Green; March 28, Swift County, E. D. Strand; April 12, Shotley, Beltrami County, Mabel Goranson.

Green Heron: April 28, Beaver, Winona County, Avifaunal Club; April 28, Washington County, D. Honetschlager; May 6, Dakota County, A. C. Rosenwinkel; May 14, Rice County, O. Rustad: May 18, Morris, Stevens County, R. Grant.

Common Egret: March 29, Minneapolis, H. Huber; March 31, Rice County, O. Rustad; April 13, Frog Lake, Stevens County, E. Strubbe; April 20, Pope County, Mrs. I. Anderson; May 1, Appleton, Lac Qui Parle County, R. Grant.

Snowy Egret: One adult, non-breeding plumage seen on June 8 at Swan Lake, Nicollet County, by R. Huber and W. R. Pieper. A Note of Interest will appear in a future issue.

Black-crowned Night Heron: April 7, Hennepin County, Avifaunal Club; April 10, Winona, the Dahms; April 20, Artichoke Lake, Big Stone County, R. Grant: May 14, Duluth, Jan Green. Yellow-crowned Night Heron: April 28, La Crescent, Houston County, Avifaunal Club; May 5, Pig's Eye area, Ramsey County, 2 adults, Bill Litkey; May 8, Minneapolis, 2 adults, Avifaunal Club; May 8, Pig's Eye area again, 1 adult, G. Laiuste; May 18, La Crescent, 3 nests with an adult on each nest, R. Janssen; May 30, Swan Lake, Nicollet County, 1 adult, Avifaunal Club; a report came in from the St. Cloud area, but no details as yet. It would appear that this heron is expanding its range in Minnesota.

Least Bittern: May 17, Artichoke Lake, Big Stone County, R. Grant; May 20, Winona, Jean McIntosh; June 8, Swan Lake, Nicollet County, adult male, Avifaunal Club.

American Bittern: April 12, Roscoe, Stearns County, Jim Muggli; April 15, Kandiyohi County, Mrs. Melvin Broman; April 20, Hennepin and McLeod Counties, A. C. Rosenwinkel; April 27, Lac Qui Parle County, Avifaunal Club; May 3, Cokato, Wright County, Erma Christopher: May 13; Shotley, Beltrami County, Mabel Goranson; May 29, Cass County, the Mathisens.

DUCKS, GEESE AND SWANS:

Whistling Swan: March 19, Washington County, D. Honetschlager: March 22, Dakota County, H. Huber; March 28, Cokato, Wright County, Erma Christopher; March 29, Swift County, E. D. Strand; March 30, Rice County, O. Rustad; March 30, Lac Qui Parle County, Avifaunal Club; March 28, Winona, several observers; April 6, Duluth, Jan Green.

White-fronted Goose: March 26, Da. kota County, 5 seen, A. C. Rosenwinkel; March 30, Salt Lake, Lac Qui Parle County, 68 seen, Avifaunal Club; April 6, Salt Lake again, 30 seen, R. Grant; April 6, Titlow Lake, Sibley County, 9 seen, R. Janssen; April 12, Duluth, 1 adult, Jan Green; April 20 Salt Lake again, 6 seen, R. Grant.

Snow-Blue Geese: March 26, Dakota County, A. C. Rosenwinkel; March 30, Salt Lake, Lac Qui Parle County, about 250 of each, Avifaunal Club.

Gadwall: March 16, Dakota County, 3 seen, R. Janssen; March 16, Silver Lake, Rochester, 8 seen and 7 seen at Etter, Dakota County, R. Janssen; March 30, Salt Lake, abundant, Avifaunal Club.

Pintail: March 24, Hennepin County, R. Janssen; March 24, Kandiyohi County, George Erickson; March 25, Fargo-Moorhead area, Harry Heggeness; March 30, Salt Lake, common, R. Janssen.

Green-winged Teal: March 26, Dakota County, A. C. Rosenwinkel: March 26, Hennepin County; R. Janssen: March 30, Salt Lake, abundant, Avifaunal Club; March 30, Duluth (early), Jan Green; March 31, Swift County, E. D. Strand.

Cinnamon Teal: Reports from Washington, Wright and Big Stone Counties; see Notes of Interest.

American Widgeon: March 21, Dakota County, R. Janssen; March 22, Rice County, O. Rustad; March 30, Salt Lake, Lac Qui Parle County, abundant, Avifaunal Club.

Shoveler: March 16, Dakota County, R. Janssen; March 27, Rice County, O. Rustad; March 30, Salt Lake, abundant, Avifaunal Club.

Wood Duck: March 16, Brown County, A. C. Rosenwinkel; March 17, Washington County, D. Honetschlager; March 25, Duluth (early), Jan Green; March 26, Dakota County, A. C. Rosenwinkel; March 30, Fargo-Moorhead area, Mrs. Loren Oliver; April 2, Cokato, Wright County, Erma Christopher; April 12, Rice County, O. Rus-April 12, Waskish, Beltrami tad; County, Bill Calleis.

Redhead: March 24, Dakota County, R. Janssen; March 30, Ken Krumm; March 30, Salt Lake, abundant, Avifaunal Club; April 3, Rice County, O.

Ring-necked Duck: March 16, Silver

Rustad.

Lake, Rochester, R. Janssen; March 27, Rice County, O. Rustad; March 30, Winona, Kem Krumm; April 6, Swan Lake, Nicollet County, R. Janssen; April 6, Cass Lake, the Mathisens. Canvasback: March 26, Dakota County, Avifaunal Club; March 27, Rice County, O. Rustad; March 29, Dakota County, A. C. Rosenwinkel; March 30, Winona, the Dahms; March 30, Salt Lake, common, Avifaunal Club; March

Howard. Greater Scaup: March 29, Dakota County, A. C. Rosenwinkel; March 30, Lac Qui Parle Refuge, 5 seen, Avifaunal Club.

31, Fargo-Moorhead area, Osborne

Bufflehead: March 26, Dakota County, A. C. Rosenwinkel; March 27, Rice County, O. Rustad; March 30, Lac Qui Parle Refuge, Avifaunal Club; April 2, Washington County, D. Honetschlager; April 12, Cokato, Wright County, Erma Christopher; April 20, Hennepin County, R. Janssen; April 27, Shotley, Beltrami County, Mabel Goranson.

Oldsquaw: latest report, May 25, Duluth, pair in summer plumage, Jan

White-winged Scoter: April 28, Duluth, 8 seen, Jan Green; seen there until May 24, when 20 were seen. Surf Scoter: May 23-24, Duluth, three

females, one male, Jan Green. Common Scoter: April 28, Duluth, 1

female, Jan Green.

Ruddy Duck: March 26, Dakota County, R. Janssen; March 29, Rice County, O. Rustad; May 20, 2 females, Duluth, Jan Green.

Hooded Merganser: March 15, Dakota

County, R. Janssen; March 24, Washington County, D. Honetschlager; April 6, Henderson, Sibley County, R. Janssen; April 16, Shotley, Beltrami County, Ben Goranson.

VULTURES, HAWKS AND EAGLES: Turkey Vulture: April 2, Washington County, D. Honetschlager; April 6, Cass Lake, the Mathisens; April 7, Waskish, Beltrami County, Avifaunal Club;

Goshawk: latest report, April 28, Duluth, Jan Green.

Red-shouldered Hawk: March 14. Washington County, D. Honetschlager; March 16, Whitewater Park, Winona County, R. Janssen; March 24, Minneapolis, R. Janssen; April 2, Cokato, Wright County, Erma Christopher; May 5, Murdock, Swift County, Ben Thoma.

Broad-winged Hawk: April 21, Dakota County, H. Huber; April 29, Itasca County, the Mathisens.

Swainson's Hawk: April 20, Lake Traverse, Avifaunal Club; May 18, Traverse County, R. Grant.

Ferruginous Hawk: March 24, Hubbard County, Avifaunal Club; April 7, Waskish, Beltrami County, Avifaunal Club; May 24, Becker-Mahnomen County line, south of Waubun, R. Grant. Golden Eagle: April 7, "immature" (white at base of tail) on ice at Walker, Cass County, Avifaunal Club; April 28, Weaver, Winona County, Avifaunal Club.

Bald Eagle:

March 10 1 ad Washington County,
D. Honetschlager

March 13 1 ad Itasca Co., the Mathisens March 16 9 ad 2 imm Read's Landing, Wabasha Avifaunal Club March 17 1 ad wading in lake, Dakota County March 21 1 ad Washington County,
D. Honetschlager Avifaunal Club

March 23 2 ad Fargo-Moorhead area, Red River Valley, Mrs. Fred Scheel March 23 1 ad Wrenshall, Carlton County, R. Janssen

March 26 1 ad Washington County, D. Honetschlager March 31 1 ad Homer, Winona County,
A. F. Shira
March 31 1 imm Washington County,
D. Honetschlager

March 31 1 imm Mud Lake, Traverse County, R. Grant April 3, 1 ad, 1 imm Washington County D. Honetschlager

April 6 1 imm Henderson, Sibley County, R. Janssen

April 6 1 ad Cass Lake, Cass County, the Mathisens

JUNE, 1963

May 24 1 ad Itasca Park, Hubbard-Clearwater County line

\*\*Osprey:\* April 12, Waskish, Beltrami County, Bill Calleis; April 19, Minneapolis, H. Huber; April 19, Cass County, the Mathisens; May 7, Cokato, Wright County, Erma Christopher; June 1, Clearwater County, 5 seen, R. Grant.

\*\*Peregrine Falcon:\* March 23, Washington County, A. C. Rosenwinkel; April 28, La Crescent, Houston County, Avifaunal Club; May 7, Mud Lake, Traverse County, R. Grant: June 7, Minneapolis, R. Janssen.

Pigeon Hawk: March 31, Duluth (early), R. Huber: April 6, Duluth, R. Huber, Bill Litkey: May 16, Ramsey County, A. C. Rosenwinkel.

#### GALLINACEOUS BIRDS:

Spruce Grouse: March 23, 9 mi. S Waskish, Beltrami County, 3 males, 7 females, feeding in a Black Spruce-White Cedar swamp and picking gravel on the highway. Avifaunal Club.

Greater Prairie Chicken: March 23, Nimrod, Wadena County, Avifaunal Club; May 24, south of Waubun, on the Becker-Mahnomen County line, displaying, R. Grant.

Sharp-tailed Grouse: March 23, Shotley, Beltrami County, 5 seen, Avifaunal Club; April 16, Shotley, 2 seen, Mabel Goranson; May 26, Cloquet Forest Research Center, Gordon Gullion.

Chukar: still present at Ely, St. Louis County. Only 2 seen there on May 5, by Avifaunal Club and Jan Green, possibly indicating that nesting had begun.

Gray Partridge: May 18, Marietta, Lac Qui Parle County, Avifaunal Club.

CRANES THROUGH GALLINULES: Sandhill Crane: April 12, Rothsay, Wilkin County, R. Oehlenschlager; April 20, Dakota County, 1 seen R. Janssen. Yellow Rail: May 18,1 mi. N. Salt Lake, LacQui Parle County, seen running and flying, Avifaunal Club; May 30, Becker County, S. of Waubun, Avifaunal Club. Common Gallinule: May 11, Swan Lake, Nicollet County, Avifaunal Club: May 25, Ramsey County, A. C. Rosenwinkel; May 29, Washington County, A. C. Rosenwinkel; May 30, Young America, Carver County, R. Janssen.

#### SHOREBIRDS:

Semipalmated Plover: March 27, Fargo-Moorhead area (very early), Dr. Robt. Loeffler; April 20, Salt Lake, R. Grant; May 30, Dorer Pools, Wabasha-Winona County line, the Dahms; June 1, Dakota County, H. Huber; June 2, Minneapolis, R. Janssen.

Piping Plover: May 5, Salt Lake, 2 seen, R. Grant; May 10, Minneapolis, 1 seen Avifaunal Club; May 19, Duluth, 3

seen, Bill Litkey, R. Huber.

American Golden Plover: April 27, Salt Lake, 5 seen Avifaunal Club; April 28, Lake Traverse, 30 seen, R. Grant. Black-bellied Plover: May 5, Salt Lake and Wheaton, R. Grant; May 23, Duluth, 1 in fall plumage, R. Janssen. Ruddy Turnstone: May 3, Duluth (early), Jan Green: May 18, Morris, Stevens County, R. Grant: May 21, Minneapolis, R. Janssen.

American Woodcock: March 24, Minneapolis, R. Janssen; April 12, St. Paul, A. C. Rosenwinkel; May 21, Frontenac, Goodhue County, Brother Theodore. Long-billed Curlew: May 18, Willmar, Kandiyohi County. City dump area. Observed independently by two observers, F. V. Ogren and Karl Thurn. Spotted Sandpiper: April 2, Shotley, Beltrami County, (early) Mabel Goranson; April 14, Cokato, Wright County, Erma Christopher; April 22, Minneapolis, R. Janssen.

Solitary Sandpiper: April 20, Salt Lake, Avifaunal Club; May 7, Minneapolis, R. Janssen.

Willet: April 27, Salt Lake, Avifaunal Club; April 28, Beardsley, Big Stone County, R. Grant; May 7, Mud Lake, Traverse County, R. Grant; May 12, Duluth, Dennis Meyer.

Greater Yellowlegs: April 1, Hennepin County, A. C. Rosenwinkel; April 6, Kandiyohi County, Pauline Lastine; April 17, Washington County, D. Honetschlager; April 20, Big Stone County, A. C. Rosenwinkel; April 24, Cokato, Wright County, Erma Christopher.

Knot: May 26, Duluth, 3 seen, Dennis Meyer.

Pectoral Sandpiper: March 30, Salt Lake, 5 seen, (early) Avifaunal Club; April 10, Ramsey County, A. C. Rosenwinkel.

White-rumped Sandpiper: April 27, Salt

Lake, Avifaunal Club; May 24, Duluth 4 seen, R. Janssen.

Dunlin: May 18, Lac Qui Parle County, Avifaunal Club; May 19, Duluth, Bill Litkey and R. Huber; May 25, Minneapolis, R. Janssen; May 30, Dorer Pools, Winona-Wabasha County line, the Dahms.

Long-billed Dowitcher: April 27, Salt Lake, 2 seen and heard, Avifaunal Club; May 17, Graceville, Traverse County, 5 seen and heard, R. Grant. Short-billed Dowitcher: May 12, Mud Lake, Traverse County, 3 seen and heard, R. Grant: May 19, Duluth, 3 seen and heard, Bill Litkey, Dennis Meyer and R. Huber; May 23, Morris, Stevens County, 20 seen and heard, R.

Stilt Sandpiper: May 23, Duluth, Jan Green; May 25, Morris, Stevens County, 20 seen, R. Grant.

Marbled Godwit: April 12, Rothsay, Wilkin County, R. Oehlenschlager; April 14, Roscoe, Stearns County, Jim Muggli; April 20, Salt Lake, Avifaunal Club; April 20, Ortonville, Big Stone County, R. Grant.

Hudsonian Godwit: April 20, Dakota County, R. Janssen; April 20, Beardsley, Big Stone County, Avifaunal Club; April 23 thru May 12, Lac Qui Parle and Traverse Counties, R. Grant; April 27, Kandiyohi County, Pauline Lastine; May 20, Delano, Wright County, 5 seen, H. Huber.

Sanderling: April 27, Salt Lake (early), Avifaunal Club; May 19, Duluth, Bill Litkey and R. Huber.

American Avocet: April 21, near Beardsley, Big Stone County, 2 seen, A. C. Rosenwinkel; April 23 thru May 12, Salt Lake, as many as 9 at once, R. Grant.

Northern Phalarope: May 5, Salt Lake, R. Grant.

#### GULLS THROUGH CUCKOOS:

Glaucous Gull:

March 23 1 fourth yr., Knife River, Lake Co.
Jan Green
March 23 6 second yr, 4 fourth year, French
River, St. Louis Co.,
Jan Green
March 31 2 third yr., Sucker River, St. Louis Avifaunal Club March 31 3 second yr., Talmadge River., St. Louis Co. Avifaunal Club April 6 1 second yr., 1 third yr., Knife River, Avifaunal Club

May 5 1 second yr., Duluth Jan Green Dennis Meyer May 21 1 second yr., Duluth

Iceland Gull: March 23, French River, 1 second year bird, Avifaunal Club and Jan Green; March 31, Talmadge River, 1 second year and 1 third year, Avifaunal Club; these were presumably the same birds seen earlier in the year and reported in the previous issue of The Flicker.

Franklin's Gull: March 30, Salt Lake, (early) Avifaunal Club; April 16, Swan Lake, Nicollet County, many, Brother Theodore.

Bonaparte's Gull: April 6, Hennepin County, R. Janssen; May 18, Duluth, about 3,000, Jan Green; May 22, Shotley, Beltrami County, Mabel Goranson. Forster's Tern: April 13, Frog Lake, Stevens County, E. Strubbe; April 16, Minneapolis, R. Janssen; April 20, Lac Qui Parle County, R. Grant.

Common Tern: April 20, Carver County, A. C. Rosenwinkel; April 26, Kandiyohi County, Ben Thoma; May 24, Cass County, the Mathisens; May 24, Duluth, about 2,000, Jan Green.

Caspian Tern: May 5, Duluth, Jan Green; May 18, Reno, Houston County, R. Janssen.

Black Tern: April 25, Minneapolis, H. Huber; April 29, St. Paul, Avifaunal Club; May 12, Lac Qui Parle and Traverse Counties, R. Grant; May 25, Cass County, the Mathisens.

Yellow-billed Cuckoo: May 25, Minneapolis, H. Huber; May 25, Washington County, D. Honetschlager.

Black-billed Cukoo: May 11, St. Paul, A. C. Rosenwinkel; May 16, Minneapolis, many observers.

OWLS THROUGH WOODPECKERS: Screech Owl: Feb. 18 (report submitted late), Fargo-Moorhead area, Dr. Robt. Loeffler; March 1, Karlstad, Kittson County, 1 gray phase found dead by F. E. Danielson; March 16, Hennepin County, R. Huber; March 25, Kandiyohi County, A. A. Cook; April 6, Pine County, 2 calling, Bill Litkey and R. Huber; May 8, Minneapolis, many observers.

Snowy Owl: March 23, Duluth, 2 seen, Jan Green; she saw them there last on April 5; last seen in Twin Cities on April 8, Minneapolis, Ray Glassel.

Hawk-Owl:

MARCH:

MARCH:
2nd, one, Idington, St. Louis Co., Nels Hervi
(seen again on 15th)
2nd, one, Beltrami County, R. Huber
2nd, one, Hubbard County, R. Huber
3rd, three, between Duluth and Iron Range,
St. Louis County, J. K. Bronoel
9th, one, Carlton County, R. Huber
9th, two, Aitkin County, R. Huber
9th, one, 2 miles N. Hill City, Aitkin Co.,
W. J. Breckenridge
9th. one, between Duluth and Iron Range.

9th, one, between J. K. Bronoel between Duluth and Iron Range,

th, one, 2 miles N. Deer River., Itasca County, W. J. Breckenridge

between Duluth and Floodwood, Tom Adams

23rd, one, Hwy. 53, St. Louis Co., Ray Naddy 23rd, one, Beltrami County, Avifaunal Club 24th, one, near Cherry, St. Louis County, F. Strnad

25th, one, near Cotton, St. Louis County, F. Strnad

one, Beltrami County, the Mathisens APRIL

6th, one, Hovland, Cook County, T. Perrons via Dr. A. E. Allin 11th, two, Meadowlands, St. Louis County, 11th, two, M Ray Naddy

12th, one, Central Lakes, near Cotton, Stults via V. F. Barrows 12th, one, between Virginia and Pellcan Lake,

St. Louis County, Nels Hervi 27th, one, Toivola, St. Louis County, Janet

Green MAY

5th, one, near Markham, St. Louis County, Avifaunal Club and Janet Green

This brings the total from last October until this May to approximately 136 Hawk-Owls, with minimal duplication of records.

Burrowing Owl: May 5, between Herman and Wheaton, in Traverse County, 1 pair, R. Grant; May 18, same pair and another pair in Traverse County R. Grant.

Barred Owl: March 31, Pine County, Kettle River, Avifaunal Club; May 18, Winona, R. Janssen.

Long-eared Owl: April 13, Bass Lake, Hennepin County, Avifaunal Club; May 5, Duluth, Nels Hervi.

Short-eared Owl: March 31, Duluth, Dennis Meyer and Avifaunal Club; April 6, Grasston, Kanabec County, Bill Litkey and R. Huber; April 13, Roscoe, Stearns County, Jim Muggli; April 20 thru May 12, Grant and Traverse Counties, up to 7 in one day, R. Grant; May 25, Traverse County, 1 seen, R. Grant; May 28, Hibbing, St. Louis County, Harriet Micensky.

Boreal Owl: A minor invasion during March along the north shore of Lake Superior. (See Notes of Interest.)

Saw-whet Owl: Heard calling intermittently in Duluth area from April 8 thru May 24, Jan Green and P. B. Hofslund; one heard at Ely, St. Louis County on May 25, Jan Green; two heard at Itasca Park on May 30, Avifaunal Club.

Poor-will: First Minnesota record. On April 16, a specimen was found on the Egge farm near Murdock, Swift County and brought to Ben Thoma at Willmar. The specimen was turned over to the Museum of Natural History (See Notes of Interest.)

Whip-poor-will: May 1, Willmar, Kandiyohi County, Ben Thoma; May 5, Anoka County, Avifaunal Club; May 11, Rice County, O. Rustad; May 13, Washington County, D. Honetschlager.

Common Nighthawk: May 8, Winona, F. Voelker; May 8, Ramsey County, A. C. Rosenwinkel; May 10, Minneapolis, R. Huber; May 15, Rice County, O. Rustad; May 25, Cass County, the Mathisens.

Chimney Swift: April 19, Minneapolis, H. Huber: April 25, Morris, Stevens County, R. Grant; May 3, Rice County, O. Rustad; May 3, Cokato, Wright County, Erma Christopher.

Ruby-throated Hummingbird: May 8, Vasa, Goodhue County, H. Huber; May 15, Rice County, O. Rustad; May 16, Minneapolis, R. Huber.

Yellow-shafted Flicker: March 11, Hennepin County, R. Huber; March 23, Willmar, Kandiyohi County, Thoma; March 25, Rice County, O. Rustad; March 26, Dakota County, A. C. Rosenwinkel; April 1, Washington County, D. Honeschlager; April 3, Shotley, Beltrami County, Mabel Goranson.

Red-headed Woodpecker: March 24, Etter, Dakota County, Jack Gardner; March 24, Fargo-Moorhead area, Red River Valley, Dr. Robt. Loeffler; March 29, Benson, Swift County, E. D. Strand; April 21, McLeod County, A. C. Rosenwinkel; May 4, Frontenac, Goodhue County, R. Janssen; May 5, Cokato, Wright County, Erma Christopher; May 12, Rice County, O. Rustad; May 17. Shotley, Beltrami County, Mabel Goranson.

Yellow-bellied Sapsucker: March 25, Carver County, R. Huber: March 30, Hennepin County, A. C. Rosenwinkel; April 6, Washington County, D. Honetschlager; April 18, Rice County, O. Я

Rustad.

Black-backed Three-toed Woodpecker: March 23, Encampment Forest, Myrtle Penner; March 23, just S. Park Rapids, Hubbard County, Avifaunal Club; March 23, 9 mi. S Waskish, Beltrami County, male and female seen, 4 others heard, Avifaunal Club.

Northern Three-toed Woodpecker: March 27 and 30, Hibbing, St. Louis

County, Harriet Micensky.

FLYCATCHERS THROUGH SWALLOWS:

Eastern Kingbird: May 4, Ramsey County, A. C. Rosenwinkel; May 5, Winona County, Hiawatha Valley Bird Club; May 8, Minneapolis, R. Janssen; May 23, Shotley, Beltrami County, Mabel Goranson.

Western Kingbird: May 5, Lake Traverse, R. Grant; May 22, Two Harbors,

Dr. Church.

Great Crested Flycatcher: May 6, Minneapolis, R. Huber: May 11, Cokato, Wright County, Erma Christopher: May 11, Washington County, D. Honet-

schlager.

Eastern Phoebe: March 24, Washington County, Jane Olyphant; March 24, Stockton, Winona County, K. Lipsohn; March 30, Hennepin County, A. C. Rosenwinkel; April 2, Cokato, Wright ounty, Erma Christopher.

Yellow-bellied Flycatcher: May 7, Minneapolis, R. Huber; May 11, Ramsey Co., A. C. Rosenwinkel; June 1, Dakota Co., 1 seen and heard, Avifaunal Club. Traill's Flycatcher: May 7, Cokato, Wright Co., Erma Christopher; May 11, Ramsey Co., A. C. Rosenwinkel; May

11, Sibley Co., Avifaunal Club.

Least Flycatcher: May 3, Minneapolis, H. Huber: May 4, Frontenac, Goodhue Co., Avifaunal Club: May 5, Lake Traverse, R. Grant; May 6, Washington Co., D. Honetschlager; May 7, Rice Co., O. Rustad; May 10, Cokato, Wright Co., Erma Christopher.

Eastern Wood Pewee: April 27, Minneapolis, 3 seen and 1 heard, W. R. Pieper, R. Huber; May 3, Cokato, Wright Co., Erma Christopher; May 11, Ramsey Co., A. Rosenwinkel; May 25, Cass

County, the Mathisens.

Olive-sided Flycatcher: May 9, Minneapolis, H. Huber; earliest report.

Tree Swallow: March 31, Scott Co., H. Huber: April 7, Little Falls, Morrison Co., about 100, Avifaunal Club: April 13, Dakota Co., R. Janssen; April 13, Ramsey Co., A. C. Rosenwinkel; April 13, Washington Co., D. Honetschlager; April 20, Lac Qui Parle Co., R. Grant; April 25, Shotley, Beltrami Co., Mabel Goranson.

Barn Swallow: April 24, Minneapolis, R. Janssen; April 24, Kandiyohi Co., Mrs. Melvin Broman; April 28, Big

Stone Co., R. Grant.

Cliff Swallow: April 28, Winona-Wabash Co. line, Avifaunal Club; May 4, Frontenac, R. Janssen; May 10, Wright Co., Erma Christopher; May 11, Ramsey Co., A. C. Rosenwinkel; May 23, Duluth, R. Janssen.

Purpil Martin: March 13, Willmar F. V. Ogren; March 24, Winona, Sanford Tylers; March 31, Winona, Ted Glubka; March 31, Homer, Winona Co., Mrs. Graves; April 9, Ramsey Co., A. C. Rosenwinkel; April 14, Nicollet Co., R. Huber; April 15, Minneapolis, H. Huber; April 15, Rice Co., O. Rustad; May 2, Cass Co., the Mathisens.

CORVIDS THROUGH WRENS:

Gray Jay: Reported nesting by the Mathisens, (See Notes of Interest) latest report, April 7, Waskish, Beltrami Co., 3 seen, Avifaunal Club.

Common Raven: Latest report, March 23, Tofte dump, Cook Co., R. Janssen. Boreal Chickadee: March 23, 9 mi. S. Waskish, Beltrami Co., 7 seen and heard, Avifaunal Club.

Red-breasted Nuthatch: March 14-21, Cass Lake, feeder, Mrs. A. E. Schmid; May 23, Duluth, Jan Green.

Winter Wren: April 4, Minneapolis, R. Janssen; May 2, Minneapolis, R. Janssen.

Long-billed Marsh Wren: May 5, Minneapolis, R. Janssen; May 11, Ramsey Co., A. C. Rosenwinkel.

Short-billed Marsh Wren: May 7, Mud Lake, Traverse Co., R. Grant; May 14, Ramsey Co., A. C. Rosenwinkel; May 14, Washington Co., D. Honetschlager.

MIMICS THROUGH VIREOS:

Mockingbird: May 11 thru 26, Two Harbors, Lake Co., Ruth Kuchta; May 15, West Newton, Winona Co., Grace Gordon and E. Tyler.

Catbird: May 4, Vasa, Goodhue Co., Avifaunal Club; May 6, Ramsey Co., A. C. Rosenwinkel: May 8, Washington Co., D. Honetschlager, May 22, Cass Co., the Mathisens; May 23, Shotley, Beltrami Co., Mabel Goranson.

Brown Thrasher: March 25, (probably a wintering bird) Kandiyohi Co., George Erickson; April 6, Kandiyohi Co., Pauline Lastine; April 16, Cokato, Wright Co., Erma Christopher; April 18, Washington Co., D. Honetschlager; April 19, Winona, F. Voelker; May 3, Shotley, Beltrami Co., Mabel Goranson; May 9, Cass Co., the Mathisens.

Wood Thrush: May 11, Henderson, Sibley Co., Avifaunal Club; May 12, Rice Co., O. Rustad; May 20, Washington Co., D. Honetschlager.

Hermit Thrush: March 24, Morris, Stevens Co., R. Grant; April 4, Minne-

apolis, R. Janssen.

Swainson's Thrush: May 2, Minneapolis, R. Janssen; May 3, Benson, Swift Co., E. D. Strand; May 8, Washington Co., D. Honetschlager; May 9, Cokato, Wright Co., Erma Christopher; May 12, Lac Qui Parle Co., R. Grant; May 20, Shotley, Beltrami Co., Mabel Goranson.

Gray-cheeked Thrush: May 2, Minneapolis, R. Janssen; May 9, Cokato, Wright Co., Erma Christopher; May 22, Cass Co., the Mathisens.

Veery: May 6, Minneapolis, R. Huber; May 7, Ramsey Co., A. C. Rosenwinkel; May 8, Rice Co., O. Rustad: May 9, Kandiyohi Co., George Erickson; May

30, Cass Co., the Mathisens.

Eastern Bluebird: March 20, Washington Co., D. Honetschlager; March 21, Winona, Sanford Tylers; March 23, Washington Co., A. C. Rosenwinkel; March 23, St. Cloud, R. Grant; March 23, Henriette, Pine Co., Avifaunal Club. Blue-gray Gnatcatcher: May 4, Vasa, Goodhue Co., Avifaunal Club; May 5, Washington Co., D. Honetschlager; May 9, Washington Co., A. C. Rosenwinkel.

Ruby-crowned Kinglet: March 30, Ramsey Co., A. C. Rosenwinkel; March 29, Benson, Swift Co., E. D. Strand; April 13, Dakota Co., Avifaunal Club; April 19, Cokato, Wright Co., Erma Christopher.

Water Pipit: April 25, Stevens Co., Del

Holdgrafer; April 27, Lac Qui Parle Co., Avifaunal Club; May 18, Two Harbors, Myrtle Penner.

Sprague's Pipit: May 30, between Felton and Ulen, Clay Co., 1 seen and

heard, Avifaunal Club.

Bohemian Waxwing: March 25, Fargo-Moorhead area, various observers; last report for Duluth, April 14, L. Patterson: May 16, Shotley, Beltrami Co., Mabel Goranson.

Northern Shrike: March 16, Whitewater Park, R. Janssen; April 21 (late), Willmar, Kandiyohi Co., Mrs. Anderson

(good details given).

Loggerhead Shrike: March 24, Cass Co., Avifaunal Club; March 30, Dakota Co., A. C. Rosenwinkel; April 20, McLeod Co., A. C. Rosenwinkel; April 20, Shakopee, Scott Co, R. Janssen. Bell's Vireo: May 26, Reno, Houston Co., male singing, found last year's nest in Sumac bush, Avifaunal Club. Yellow-throated Vireo: May 5, Minneapolis, R. Janssen; May 8, Ramsey Co., A. C. Rosenwinkel; May 11, Washington Co., D. Honetschlager.

Solitary Vireo: May 5, Minneapolis,

R. Janssen.

Red-eyed Vireo: May 7, Kandiyohi Co., George Erickson; May 7, Minneapolis, R. Huber; May 14, Rice Co., O. Rustad; May 14, Ramsey Co., A. C. Rosenwinkel; May 25, Cass Co., the Mathisens.

Philadelphia Vireo: May 6, Minneapolis, (early) Bill Litkey, A. C. Rosenwinkel and R. Huber; May 6, Ramsey Co., A. C. Rosenwinkel; May 23, Morris, Stevens Co., R. Grant; May 26,

Duluth, Jan Green.

Warbling Vireo: May 4, Frontenac, Goodhue Co., Avifaunal Club; May 6, Ramsey Co., A. C. Rosenwinkel; May 6, Washington Co., D. Honetschlager; May 8, Cokato, Wright Co., Erma Christopher: May 23, Shotley, Beltrami Co., Mabel Goranson.

#### WARBLERS:

Black-and-White Warbler: May 3, Minneapolis, R. Huber; May 3, Washington Co., D. Honetschlager; May 3, Swift Co., E. D. Strand; May 5, Cass Co., the Mathisens; May 8, Wright Co., Erma Christopher.

Prothonotary Warbler: May 11, Washington Co., D. Honetschlager; May 15, Rice Co., O. Rustad; May 18, La Crescent, Houston Co., R. Janssen.

Golden-winged Warbler: May 4, Vasa, Goodhue Co., Avifaunal Club; May 11, Ramsey Co., A. C. Rosenwinkel; May 12, Washington Co., D. Honetschlager; May 25, Cass Co., the Mathisens.

Blue-winged Warbler: April 27, Winona, Mrs. Robert Horton; April 27, Minneapolis, several observers; May 11, Washington Co., D. Honetschlager (his first record for that area); May 18, Winona, Avifaunal Club; May 30, Fillmore Co., six banded by Orwin Rustad and Carl M. Johnson.

Orange-crowned Warbler: April 27, Ramsey Co., A. C. Rosenwinkel: May 2, Minneapolis, R. Huber; May 4, Cokato, Wright Co., Erma Christopher; May 4, Washington Co., D. Honetschlager; May 3, Shotley, Beltrami Co., (early),

Mabel Goranson.

Worm-eating Warbler: One seen on May 5, 6 and 8, in the T. S. Roberts Sanctuary, near Lake Harriet, Minneapolis by many observers. It is believed that the same bird lingered in the area during the period of observation.

Parula Warbler: April 17, Minneapolis, R. Oehlenschlager (good details, very early); April 22, Minneapolis, Karen Eastman (good details, very early); May 7, Minneapolis, R. Janssen.

Magnolia Warbler: May 7, Minneapolis, R. Janssen; May 10, Wright Co., Erma Christopher; May 11, Ramsey Co., A. C. Rosenwinkel; May 11, Washington Co., D. Honetschlager.

Cape May Warbler: May 7, Ramsey Co., R. Oehlenschlager: May 15, Rice Co., O. Rustad: May 19, Duluth, 6 seen, Bill Litkey and R. Huber; May 23, Shotley, Beltrami Co., Mabel Goranson

Black-throated Blue Warbler: May 26, Two Harbors, Ruth Kuchta, May 28,

Duluth, R. Ulvang.

Black-throated Green Warbler: May 3, Minneapolis, R. Janssen; May 3, Cass Co., (early) the Mathisens; May 10, Cokato, Wright Co., Erma Christopher; May 11, Ramsey Co., A. C. Rosenwinkel.

Blackburnian Warbler: May 8, Minneapolis, R. Janssen; May 8, Ramsey Co., A. C. Rosenwinkel; May 12, Washington Co., D. Honetschlager; May 14, Cass Co., the Mathisens.

Cerulean Warbler: May 4, Vasa, Good-

hue Co., one seen, one heard, Avifaunal Club.

Bay-breasted Warbler: May 11, Ramsey County., A. C. Rosenwinkel; May 13, Wright Co., Erma Christopher; May 16, Minneapolis, R. Huber.

Blackpoll Warbler: May 7, Minneapolis, R. Huber: May 11, Washington Co.,

D. Honetschlager.

Pine Warbler: May 19, Duluth, Bill Litkey and R. Huber; May 30, Itasca

Park, Avifaunal Club.

Palm Warbler: April 28, Dorer Pools, Winona-Wabasha Co. line, Avifaunal Club; May 2, Washington Co., D. Honetschlager; May 2, Minneapolis, R. Janssen; May 6, Ramsey Co., A. C. Rosenwinkel; May 11, Cass Co., the Mathisens.

Ovenbird: May 2, Minneapolis, R. Huber; May 5, Ramsey Co., A. C. Rosenwinkel; May 5, Wright Co., Erma Christopher; May 5, Swift Co., Mrs. I. Anderson; May 8, Cass Co., the Mathisens.

Northern Waterthrush: May 2, Minneapolis, R. Janssen: May 7, Washington Co., D. Honetschlager; May 8, Ramsey Co., A. C. Rosenwinkel; May 9, Wright Co., Erma Christopher.

Louisiana Waterthrush: May 1, Sibley Co., Avifaunal Club; May 4, Goodhue Co., Avifaunal Club; May 5, Ramsey Co., A. C. Rosenwinkel; May 30, Fillmore Co., one banded by Carl M. Johnson.

Connecticut Warbler: May 7, Duluth 2 seen (very early), M. Aftreith; May 9, Minneapolis, several observers (early); May 16, Duluth, Jan Green; May 24, Minneapolis, R. Janssen; May 24, Ramsey Co., A. C. Rosenwinkel; May 31, Hibbing, St. Louis Co., Harriet Micensky.

Mourning Warbler: May 13, Minneapolis, R. Huber; May 16, Ramsey Co., A. C. Rosenwinkel: May 30, Gaylord,

Sibley Co., R. Janssen.

Wilson's Warbler: May 7, Washington Co., D. Honetschlager: May 8, Minneapolis, W. R. Pieper; May 10, Wright Co., Erma Christopher; May 14, Cass Co., the Mathisens.

Canada Warbler: May 20, Ramsey Co., A. C. Rosenwinkel; May 20, Washington Co., D. Honetschlager; May 21,

Minneapolis, Art Bogren.

American Redstart: May 8, Minneapolis, W. R. Pieper; May 11, Ramsey Co.,

A. C. Rosenwinkel; May 11, Cass Co., the Mathisens.

BLACKBIRDS, TANAGERS AND ORI-OLES:

Bobolink: May 8, Wright Co., Erma Christopher; May 8, Beltrami Co., the Mathisens (early); May 11, Gotha, Carver Co., Avifaunal Club; May 15,

Rice Co., O. Rustad.

Yellow-headed Blackbird: March 25, Rice Co., O. Rustad; March 29, one dead on highway near Delano, Wright Co., R. Huber; April 4, Kandiyohi Co., Gladys Payne; April 6, Morris, Stevens Co., R. Grant; April 6, Swan Lake, Nicollet Co., R. Janssen; April 14, Wright Co., Erma Christopher; April 20, Winona, F. Voelker; May 2, Cass Co., the Mathisens.

Orchard Oriole: May 18, Houston Co., R. Janssen.

Brewer's Blackbird: March 23, Kandiohi Co., Pauline Lastine; April 5, Ramsey Co., H. Huber; April 6, Swan Lake, Nicollet Co., R. Janssen; April 7, Morrison Co., Avifaunal Club; April 18,

Rice Co., O. Rustad.

Scarlet Tanager: May 8, Goodhue Co., Avifaunal Club: May 11, Ramsey Co., A. C. Rosenwinkel; May 22, Cass Co., the Mathisens; May 22, Virginia, St. Louis Co., Vera F. Barrows; May 25, Shotley, Beltrami Co., Mabel Goranson; Jan Green reports 5 different observations in the Duluth area this spring, more than ever before for that

#### FRINGILLIDS:

Cardinal: Usual reports from southeastern Minnesota. Most interesting report was an adult seen on June 1,

Mahnomen Co., R. Grant.

Rose-breasted Grosbeak: May 2, Minneapolis, R. Janssen; May 4, Washington Co., D. Honetschlager; May 8, Ramsey Co., A. C. Rosenwinkel; May 21, Cass Co., the Mathisens.

Indigo Bunting: May 10, Ramsey Co., A. C. Rosenwinkel; May 11, Rice Co., O. Rustad: May 11, Gaylord, Sibley Co.,

Avifaunal Club.

Dickcissel: May 12, East Union, Carver Co., R. Huber; May 18, Houston Co., many, R. Janssen; May 25, Traverse Co., R. Grant; May 29, Rice Co., O. Rustad.

Evening Grosbeak: March 5, Fargo-Moorhead area, various observers; April 22, Shotley, Beltrami Co., Mabel Goranson; May 23, Duluth, 30 seen, R. Janssen; May 31, Duluth, Mrs. S. N. Erickson.

Pine Grosbeak: last report, May 5, Lake Co., Avifaunal Club and Jan Green.

Red Crossbill: Seven observations by Duluth Bird Club during April; May 2, Duluth, 7 seen, Dennis Meyer; May 27, Duluth, 3 seen, Dennis Meyer.

White-winged Crossbill: March 7 thru 31, 5 observations made by Duluth Bird Club; April 7, Waskish, Beltrami Co., 9 seen, Avifaunal Club; May 12-13, Duluth, Dennis Meyer.

Rufous-sided Towhee: April 28, Winona, the Dahms; April 28, Minneapolis, R. Janssen: April 30, Cass Co., (early) the Mathisens: May 11, Ramsey Co., A. C. Rosenwinkel; May 12, Washington Co., D. Honetschlager; May 23, Duluth, Jan Green and R. Janssen.

Baird's Sparrow: May 24, Clay Co., between Felton and Ulen, 2 seen and

heard, R. Grant.

LeConte's Sparrow: April 27, Salt Lake, Lac Qui Parle Co., Avifaunal Club; May 30, Becker and Mahnomen Co.'s Avifaunal Club.

Henslow's Sparrow: May 18, Winona, R. Janssen.

Sharp-tailed Sparrow: May 24, Becker Co., S of Waubun, 4 seen, R. Grant. Lark Sparrow: May 8, Winona, the Dahms; May 11, Scott Co., Avifaunal Club.

Oregon Junco: March 25, Karlstad, Kittson., (good description of male and female), Elizabeth Danielson; April 3-6, Two Harbors, pair, Ruth Kuchta; April 5-13, Hibbing, St. Louis Co., Harriet Micensky; May 4, Goodhue Co., R. Janssen.

Tree Sparrow: Last reports, April 17, Washington Co., D. Honetschlager; April 17, Minneapolis, R. Janssen: April 27, Ramsey Co., A. C. Rosenwinkel. Clay-colored Sparrow: April 27, Dawson, Lac Oui Parle Co., Avifaunal Club; May 7, Cass Co., (early) the Mathisens; May 8, Ramsey Co., A. C. Rosenwinkel. Field Sparrow: March 23, Winona, (early) Grace Gordon; March 30, Rice Co., O. Rustad; April 6, Hennepin Co., R. Janssen; April 6, Washington Co., A. C. Rosenwinkel; April 11, Washington Co., D. Honetschlager; May 5, Winona, Hiawatha Valley Bird Club. Harris' Sparrow: April 29, Kandiyohi

Co., Gladys Payne; May 2, Wright Co., Erma Christopher: May 2, Shotley, Beltrami Co., (early) Mabel Goranson; May 3, Ramsey Co., A. C. Rosenwinkel; May 5, Lake Traverse, R. Grant; May 8, Washington Co., D. Honetschlager. White-crowned Sparrow: April 26, Ramsey Co., A. C. Rosenwinkel; May 1, Shotley, Beltrami Co., (early) Mabel Goranson; May 4, Kandiyohi Co., Pauline Lastine; May 5, Minneapolis, R. Janssen; May 9, Washington Co., D. Honetschlager; May 11, Morris Co., R. Grant; May 16, Rice Co., O. Rustad; May 30, Swan Lake, Nicollet Co., (late) R. Janssen.

White-throated Sparrow: March 31, Minneapolis, R. Janssen: April 13, Ramsey Co., A. C. Rosenwinkel; April 13, Shotley, Beltrami Co., (early) Mabel Goranson; April 29, Cass Co., the Mathisens.

Fox Sparrow: March 20, Rice Co., O. Rustad; March 25, Young America, Carver Co., R. Huber; March 28, Minneapolis, R. Janssen; March 30, Dakota Co., A. C. Rosenwinkel; March 31, Cass Co., the Mathisens; April 1, Washington Co., D. Honetschlager: April 1, Shotley, Beltrami Co., (early) Mabel Goranson.

Lincoln's Sparrow: April 10, Minneapolis, 2 seen, (early) R. Huber; April 28, Minneapolis, R. Janssen: May 3, Cokato, Wright Co., Erma Christopher; May 6, Ramsey Co., A. C. Rosenwinkel; May 9, Washington Co., D. Honetschlager.

Chestnut-collared Longspur: May 24, between Felton and Ulen, Clay Co., about ten pairs, R. Grant.

Snow Bunting: Last report, April 16, Shotley, Beltrami Co., Mabel Goranson.

SUMMARY: The spring migration brought some early flycatchers, swallows and warblers. The Yellow-crowned Night Heron made an unprecedented northward "invasion." Boreal Owls made a small invasion along the North Shore of Lake Superior during March. Several new or unusual species were seen; Mockingbird (almost regular now), Worm-eating Warbler and Snowy Egret from the south, Cinnamon Teal, Ferruginous Hawk, Long-billed Curlew, Baird's Sparrow and Poor-will from the west. The latter is Minnesota's first specimen, while the Baird's Sparrow poses special problems for Minnesota birders. While it may have formerly been a breeding bird (and perhaps it may still breed here occasionally), it now seems, for the most part, to be an irregular nomad in northwestern Minnesota.

For the past year or two, Jan Green of Duluth and Grace Dahm of Winona have acted as "regional compilers" for their respective areas to assist with the Seasonal Report. Their efforts have been entirely voluntary and much-appreciated. This spring, two new compilers revealed themselves—Ben Thoma of the Willmar area and Elizabeth Anderson of the Fargo-Moorhead (Red River Valley) area. Their assistance, combined with the efforts of Dick Grant of Morris, gives us the muchneeded coverage of Western Minnesota that we have lacked for many years.

As you read this, the breeding season is well underway. Please submit your nesting finds on or just before September first. 3121 Georgia Ave. South Minneapolis 26, Minnesota.

# THE CANADIAN LAKEHEAD

by A. E. Allin

The winter of 1962-63 was very severe. The temperature for December was 1.4° below normal; January was 8.5°, February 6.7° and March 2.1° below the average. As a result of this severe weather over a prolonged period, the Upper Great Lakes were almost completely frozen although a

narrow channel of open water may have persisted east of Isle Royale. There were generally small patches of open water along the shore between Grand Marais and Duluth. As a result, the Common Goldeneyes and Oldsquaws attempting to winter on the lake were forced to find open water elsewhere as were the few Red-necked Grebes which apparently had attempted to winter on Lakes Superior and Huron. Herring Gulls must also have been affected.

April was a relatively mild month with a temperature 1.0° above the mean normal. The snowfall of 3.5" was less than half the average 8.2". May was a cold month with a mean temperature of 45.7° some two degrees below average. The total precipitation was slightly below normal. A snowfall on May 21 was the latest measurable amount recorded in the past 20 years. On the same date the roads were snowpacked at Nakina. This was part of the cold wave which swept the center of the continent from the Rocky Mountains to New York State. It caused less damage locally than further south due to the fact that our growth was insufficiently advanced to be damaged. The total snowfall for 1962-63 was 64.7" compared with the average 90.2". However, in outlying areas the snowfall was much greater. Nakina received 118 inches.

As we write this article on June 1, the leaves are still small on the White Birches and the Aspens. Buds are scarcely open on the American Elms and the Black Ash. In the swamps the Tamaracks are just unfolding their feathery needles, perhaps the most beautiful green of all foliages. However the countryside is white with the bloom of Saskatoons, Pin Cherries, Choke Cherries, and Wild Plums. Surely at this late date they will escape a killing frost. Man and wildlife should anticipate a bountiful supply of their fruits.

As usual it was difficult to determine which species was the first migrant. Probably it was the Common Redpoll. Present in small numbers throughout the winter, K. Denis reported it as abundant at Dorion on March 8. Common Crows appeared at Fort William and at Atikokan on March 15. Mrs. Peruniak reported the return of Starlings to Atikokan on the same date. A Sparrow Hawk was seen on March 28 and a Great Blue Heron on March 31. These were un-

usually early dates of arrival for these species.

On April 2, the Lakehead region experienced the most severe ice storm in many years. Tens of thousands of Aspen Poplars suffered broken tops in an area extending from Whitefish Lake 100 miles northeast to Dorion. This brought to a halt the first great wave of migrants which included Marsh Hawks. Robins. Common Grackles, Slate-colored Juncos, Western Meadowlarks and Snow Buntings. A second wave of migration on April 16, brought to the Lakehead Brown Creepers, Yellow-shafted Flickers and Yellow-bellied Sapsuckers. On the same date there was a wave of male Robins new arrivals-when local birds were far advanced in their nest-building. Another flock of 20 was seen on April 28. A late movement of Robins with peculiar colorations is seen here each year and has been reported in many other regions across the center of the continent. The April 16 flight was earlier than usual. We believe this is a race of Robin which requires some scientific study.

Migration was undoubtedly upset by the cold wave involving a great transection of the continent about May 21. Many of the late migrants had invaded the area ahead of the cold. A major movement was reported at the Lakehead on May 18. Another great wave arrived after the storm on May 24. However, Mrs. Church told us a wave we saw moving along Lake Superior on May 27 near Two Harbors was the first warbler wave seen there in 1963. As we drove north to Pigeon River, a constant movement of small birds, singly and in flocks, was evident along Highway 61.

Unfortunately our notes are scanty for much of May—when we holidayed by taking a 4500 mile automobile trip. Leaving Fort William on May 2, we drove along the new Highway north of Lake Superior (a trip which all our readers would enjoy) to Sault St. Marie. The lakes were still frozen at Marathon. From Sault we drove south to Lake Ontario and thence west across southwestern Ontario to Point

Pelee. May 11 and 12 were spent birding at that internationally famous region on the forty-second parallel of latitude at the annual Field Day of the Federation of Ontario Naturalists. We had a good chance to compare its potentialities for seeing outstanding species with those of famous Frontenac. A female Summer Tanager was the highlight; 29 species of warblers were identified there this spring by reliable observers.

Our route then took us across Iowa and north to Minneapolis. A few hours at Frontenac were as enjoyable as usual. May 18 and 19 were spent at Winona with the M.O.U A long drive across Minnesota and Nebraska to Valentine added many Dickcissels and a pair of nesting Say's Phoebes at Wisner, and a Mockingbird at the Niobara Refuge. As we drove across South Dakota, the disastrous results of the cold on May 22 were obvious. The leaves of the Oaks were frozen over a vast area and the Alfalfa and spring grains were damaged.

Spring had not yet reached the heights of the Black Hills on May 23 but White-winged Juncos and Audubon's Warblers were not uncommon. In Spearfish Canyon we admired a pair of Dippers but could not find the pair generally present at Roughlock Falls. We renewed acquaintances with the Violet-green Swallows and White-throated Swifts along the cliffs.

Another long trip across South Dakota coincided with the migration of Lark Buntings. At the S.D.O.U. Field Days on May 25 and 26, flocks of White Pelicans and the Western Grebes attracted most of our attention. Another day's drive took us across Minnesota and home to Fort William where spring had scarcely arrived.

Many birds are necessarily overlooked on such a trip. We saw about 200 species. The Dickcissel, Dipper, and Say's Phoebe were new to our life-list. Several other species had rarely been seen before. We were dismayed that we saw only 4 Eastern Blubirds on the entire trip, but happy to see two pairs of Mountain Bluebirds nesting near Rapid City. We were delight-

ed to see such numbers of Red-headed Woodpeckers, a species which once caused concern as to its future.

Loons, Grebes, and Herons: On February 14, a Red-necked Grebe attempted to land on a Fort William street and was killed by an automobile. This species rarely winters on Lake Superior although recent records in The Flicker from Duluth suggest its presence may have been overlooked in the past. We believe this bird was forced off Lake Superior due to the almost complete freezing-over of that Lake.

Swans, Geese, and Ducks: A Whistling Swan appeared at Chippewa Park on April 20. About 100 Canada Geese were seen near Shebandowan on the evening of February 11. Had these birds visited us from Rochester, the nearest area to the Lakehead where the birds winter? Canada Geese migrated in great numbers from April 12 to April 25. Blue and Snow Geese were uncommon. Green-winged Teal were plentiful; four were seen on April 13, a record early date. Buffleheads were scarce; we saw two near Dorion on May 2, a late date for their first appearance.

Vultures and Hawks: A Pigeon Hawk was seen on several occasions throughout the winter. They do not appear to be nesting in Vicker's Park which may explain the unusual number of Robins breeding there. Sparrow Hawks arrived unusually early and subsequently were common along the highways.

Grouse to Gulls: Both the native grouse and the introduced Gray Partridge seem scarce. An American Coot reported by C. E. Garton on March 26 was an unusually early arrival. In general the shore-bird migration was poor and no unusual species was recorded. There were several reports of Dowitchers. The Upland Plovers returned to the area where they have nested since the mid-forties. March 28 was early for the first Killdeer.

The Herring Gulls continue to be a problem at the Airport. Will this be aggravated by the increasing numbers of Ring-billed Gulls? On May 28 we saw 20 Bonaparte's Gulls the largest number we have seen in one year at the Lakehead.

Doves to Owls: Mourning Doves continue to increase. One found dead will be critically studied to determine which race is present locally.

The outstanding event of the past winter was undoubtedly the great invasion of Hawk-Owls into most of Ontario and into Minnesota. We saw the first Hawk-Owl on October 3; ten were reported throughout the winter and two more on March 3. The Hogarths and Perrons saw one near Shebandowan on May 23. This leads us to believe some of these birds may have remained to breed in our general area. There is one old breeding record for O'Connor Township and a recent record of a nest at Auden. Snowy Owls also occured in numbers. About 20 individuals were reported between October 27 and March 14. Mrs. Peruniak reported a Great Gray Owl near Atikokan in mid-December. One was shot near Ignace, probably in late April. A Boreal Owl was captured in Paipoonge Township on January 5 and one was killed by a car north of Grand Marais, Minnesota, on March 17. A Saw-whet Owl was seen by many observers in Fort William on April 6. An account of a Great Horned Owl attacking and injuring a man at English River appears elsewhere in The Flicker.

Woodpeckers to Creepers: Two Black-backed Three-toed Woodpeckers were seen in September near Shebandowan. Another visited the feeding station of Mrs. Vibert near Fort William on February 23. A Northern Threetoed Woodpecker was seen by Mrs. Peruniak at Aitkokan in late December. Olive-sided Flycatchers have been more numerous than usual. We saw 3 in Vicker's Park on May 31 where Yellow-bellied Flycatchers were also present. An Eastern Phoebe seen on April 14 was a very early arrival. The Rough-winged Swallow has been reported locally on only a few occasions, although we have two records of it breeding here. The Allins saw two in O'Connor Township on April 28.

Gray Jays were generally scarce throughout the winter of 1962-63 but Blue Jays were present in their usual numbers. Common Ravens were still present in small numbers throughout April and probably now breed within a radius of 25 miles of the Lakehead. Few Common Crows wintered here. Brown Creepers were reported at three winter feeding stations. They were common during migration, being first reported on April 4.

Wrens to Starlings: Eastern Bluebirds continue to be very scarce. Robins seem very abundant. They were fairly common throughout the winter from Grand Marais to Marathon, at the top of Lake Superior. At least one Catbird and three Brown Thrashers have been seen. A Mockingbird was studied by several observers in Vicker's Park on May 18, and the Perrons and Hogarths saw one at Shebandowan on May 23. No Bohemian Waxwings were reported. Cedar Waxwings wintered here in numbers. They now seem very abundant. A Northern Shrike was seen on April 7, only the third record for the 1962-63 winter season. The status of the Starling appears unchanged.

Vireos and Warblers: The migration of vireos was not unusual. After again familiarizing myself on my trip, with the songs of the Warbling and the Yellow-throated, I am sure that they do not occur here, unless it is as casual visitors. The warbler migration seems to have been satisfactory. Myrtle Warblers appeared on April 25. Movements in Fort William on May 18 and 28 were outstanding. Parulas and Black-throated Blues were seen on May 25. The migration of Tennessee Warblers was very heavy and continued until the end of May when they seemed to be the only warbler to be still migrating.

Bobolinks to Tanagers: Bobolinks again returned to the Airport area. Two Baltimore Orioles have been reported. Scarlet Tanagers are usually seen each spring, this year at least six were reported.

Grosbeaks, Finches, Sparrows and Buntings: Evening Grosbeaks appeared on November 23 and remained in large numbers throughout the winter. Generally they frequented the feeders. Several of the latter were shut down in late winter. This may explain the 12 Evening Grosbeaks feeding on my Cottoneasters on March 4 as the seeds of the latter are not a preferred food. Nor is the fruit of a Barberry in Vicker's Park which never seem to be eaten despite a bountiful annual crop. Three Evening Grosbeaks were still present on May 31.

Purple Finches do not usually winter in this region but many did so this past winter. Up to 11 frequented one feeder. A male was seen at Geraldton in mid-February by Mrs. J. N. Henry. Pine Grosbeaks appeared on November 11 and were present in relatively small numbers all winter. Possibly they did not need to leave the forests where there was a terrific crop of fruit on the Mountain Ash. This was consumed early locally by Starlings, Robins and other fruit-eaters but much of it remained untouched all winter along the north shore of Lake Superior about Marathon. There P. Kerkoerle saw thousands of Pine Grosbeaks between Marathon and Elliott Lake in mid-February. K. Denis saw great numbers near Dorion on March 8. The last Pine Grosbeak was seen locally on March 24.

Common Redpolls were present in small numbers all winter. K. Denis saw large flocks near Dorion on March 8. Kerkoerle reported "millions" between Elliott Lake and Marathon the last week of February. A few Hoary Redpolls were seen with the Common Redpolls by Kerkoerle and we saw a few in Fort William on January 22.

The Rufous-sided Towhee has been reported but once or twice at the Lakehead. However one was seen at Mrs. Henry's feeding station at Geraldton on November 15. It remained there until February 19. It was found dead on February 20. It proved to belong to the eastern race. A Tree Sparrow survived the first part of the winter in Neebing Township. A Song Sparrow was seen on December 15 and 22. Both species are rare winter residents. A few Slate-colored Juncos also wintered here. Only a few Snow Buntings were reported throughout the winter months and their spring migration was poor.-Regional Laboratory, Ontario Department of Health, Fort William, Ontario.

# Observations of a Nesting Blackburnian Warbler at Itasca Park

by C. E. Munns

While studying at the University of Minnesota Biological Station at Lake Itasca in June and July of 1962, my wife and I were fortunate to have a Blackburian Warbler build a nest in a white spruce within ten feet of our trailer parked at the Station campground. The nest was built very conveniently (for us) about eight feet from ground level which is quite rare for this species, and readily observed from our front trailer window. It was composed of spruce twigs, grass, plant fibers, lichens, some hair which looked very much like racoon hair, (a racoon visited our campgrounds fre-

quently), and a short piece of string which was carefully woven into the lining with the other fibers. Interesting also was the late nesting date of June 28. It is difficult to find much data on the Blackburnian Warbler, but it is generally assumed that most of the warblers have one brood per season because of the migratory time element involved. There could be several reasons for the late nesting, but the most probable would be an unsuccessful earlier nesting. A male Blackburnian was observed singing in the next tree on two or three occasions. but after that was never seen nor

heard again.

The nest building operation was first observed on June 28 and on that day a heavy rain storm hindered the process. Building continued slowly on the 29th, and rain again on the following day resulted in little activity at the nest as she was seen only once. When we did not see her at all on July 1, we feared that the odds against her weathering the storms were too great, but the next day she was back again. Although the nest was very thin on one side and obviously incomplete, it contained two eggs on July 3. These were discovered by the use of an automobile mirror attached to the end of a long pole and held above the nest. Our vigil and that of the Blackburnian had just begun. Day after day we watched as she incubated her twosome. The next ten days were long ones for all of us, and after they had passed we began to wonder if the eggs were fertile after all. We had given up hope, but the warbler remained steadfast on those two speckled eggs for two more days. By this time the entire campground was concerned, but many close observers did not alarm her in the least.

To our great amazement and relief, on the rainy morning of July 15th, too wet for onlookers outside, a pair of tiny nestlings gaped from the nest and the industrious feeding operations had begun. For the first few days the mother devoted a few minutes' time to a warm up period between feedings and she would settle down upon the nestlings for a period of from two to six minutes at a time. She then would leave in search of more bugs and worms to put down the throats of the demanding young. When they were eight to ten days old their appetites increased and the mother's time at the nest decreased-just long enough to pop an insect into a gaping mouth and occasionally a second or two to clean the nest. On one occasion she left the nestlings for several hours, much to everyone's concern, however, quiet but quick feeding times could have been accomplished during a blink of an observer's eye. By July 23 the young birds were feathering out on wings and body, replacing the initial fuzzy down. By July 25 the young birds were climbing to the rim of the nest to meet the mother coming with food. At noon the next day they hopped out of the nest to the adjacent branches, and by evening were being fed on branches some distance above the nest. The spruce boughs were so thick that it was difficult if not impossible to see them, and by the next day we had lost track of them completely.

A chronological record of the nesting period is presented below by the observers together with a tabulation of consecutive feeding times measured during the height of feeding activities. Jerry Peleaux has movies of the incubation and feeding operations and Gloria Peleaux has added a most interesting nest to her collection. Ornithology student, Vincent Heig, assisted with the observations.

A one hundred percent success under seemingly adverse conditions—late nesting, absence of male after mating, minimum of eggs, hazardous weather, incomplete nest, height of nest from ground, and curious humans—plus our unique vantage point, made this a most interesting and unusual observation of a seldom studied warbler.

- June 28—First observed building nest. Heavy rain late afternoon.
  - 29—At work on nest 7:30 a.m. Little nest building remainder of day.
  - 30—At nest 9:00 a.m. Rained all day.
- July 1—Not seen at nest all day, perhaps there but unobserved.
  - 2—Seen sitting in nest.
  - 3-Two eggs in nest.
  - 4-14-Incubation of eggs.
    - 15—Eggs hatched. Feeding begins.
    - 16—Brings worms for young. Brooding between feedings.

17—Irregular periods of feeding 23-24—Young feathering and brooding.

18-22—Search for food increases; brooding decreases.

Consecutive timing of nesting activities during this period:

	(read	ing	acı	ross	5)		
Gone f					B	rooding	
3	minutes					6	minutes
4	minutes					0	minutes
11/2	minutes					0	minutes
1	minute					3	minutes
7	minutes					0	minute
61/2	minutes					0	minute
2	minutes					0	minute
2	minutes					5	minutes
13	minutes				13	2	minutes
2	minutes					0	minute
31/2	minutes				21	2	minutes
51/2	minutes					0	minute
2	minutes				21	2	minutes
1/2	minutes					0	minute
11/2	minutes					0	minute
21/2	minutes					0	minute
Averag	ge			-			

out on wings and body.

25-Climbing on rim of nest to meet mother coming with food.

Feeding intervals at this time: (in minutes)

7, 1, 2, 2, 2½, 2, 1½, 3, 2, 2½, 1½.

Time spent at nest only a few seconds. Droppings taken from young birds and nest every four or five feedings.

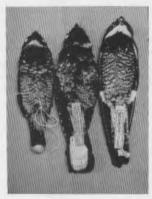
26-Noon. Young hopping out on branches close to nest. 6:00 p.m. Nest empty. Young birds in upper branches of

Route 2, Elk River, Minnesota

# NOTES OF INTEREST

31/3 minutes





Comparison of the Poor-will, Whip-poor-will and Common Nighthawk (left to right)

FIRST RECORD OF THE POOR-WILL FOR MINNESOTA-On April 16, 1963 Mr. Duane Egge, a high school student, found a nearly dead Poor-will (Phalaenoptilus nuttallii) in a grove of trees near the farm buildings on the Art Egge farm (N 1/2 sec 7 T 120 R 37) in Swift County. Apparently the bird had been mauled slightly by a dog or cat. One wing was broken and some of the tail feathers were lost. Through Mrs. Eileen Anderson, a teacher at Murdock High School, the specimen was reported to the Willmar Bird Club.

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3+

Mr. Ben Thoma brought the specimen to the Minnesota Museum of Natural History on May 3. A few days later, when it was prepared as a museum skin by John A. Jarosz, it proved to be a female that weighed 40.8 grams and it was "medium" fat. The specimen is No. 18903 in the museum collection. This is the first known occurrence of this western species in Minnesota. Dwain W. Warner, Museum of Natural History, University of Minnesota.

CINNAMON TEAL SEEN NEAR DARWIN—On Friday, May 10, 1963 my husband and I saw a male Cinnamon Teal on a small marshy pool at the edge of a woods, next to a county road, about one and one-half miles northeast of Darwin, Meeker County. Darwin is approximately 60 miles northwest of the Twin Cities on Highway 12. The only other bird we could see on the pool was a male Blue-winged Teal. The birds did not become alarmed as we approached but swam about on the further edge of the pool next to the woods. We had never seen a Cinnamon Teal before but we could readily identify it from pictures in our Peterson Field Guide. The bird was only about 100 feet from the road as we watched it with our binoculars. We counted ourselves very fortunate as this is a rare species for this part of the country and it was a new bird for my life list.—Erma G. Christopher, Cokato, Minnesota.

CINNAMON TEAL SEEN NEAR STILLWATER—On April 16, 1963, a Cinnamon Teal was observed in a high-water pool of the St. Croix River in front of our home in May Township, Washington County (45° 108 N, 92° 45' W; Section 18, Twp 31, Range 19). Three observations were made by my wife and myself in a period from 11:00 a.m. to 1:00 p.m. There were periods of bright sun during this time which aided in identifying the duck. The habitat is Pseudo-Carolinian.

The duck was a rich cinnamon brown on head and sides with a darker brown on the back. We were unable to see any blue on the wing. It was with a group of four male and two female Blue-winged Teal. Its size and shape was similar to these ducks. A male and female Wood Duck were also in the pool.

In Bent and in Pearson, the Cinnamon Teal is described as being "playful." This Teal made aggressive or playful runs at the male Bluewinged Teal repeatedly. It was this activity which attracted my wife's attention in the first discovery of the bird. Dean Honetschlager, Route 2, Stillwater, Minnesota.

CINNAMON TEAL IN BIG STONE COUNTY—On April 21, at 8 a.m. a male Cinnamon Teal was seen by the writer on the border of an extensive cattail marsh located ½ miles west of the central portion of Artichoke Lake in eastern Big Stone County. The bird was very closely accompanied by a female teal (either Blue-winged Teal, or, possibly, Cinnamon Teal) which kept within a few feet of it at all times, and which it defended from the attentions of two male Blue-winged Teal feeding close by. The only other ducks present were a pair of Mallards but six Black-crowned Night Herons were standing about in the shallow water at the edge of the marsh vegetation. The male Cinnamon Teal was observed for forty minutes at a distance of about 125 yards through a 25X spotting scope. During this period the bird dabbled, preened briefly, and stood for a few minutes on matted vegetation. The light was excellent and plumage details were clearly visible. His color was a solid rich brown (perhaps a little darker than the side patch on a Shoveler), except for the back, which appeared a very dark brown with a few thin white streaks, and

the tail, which was a mottled brown. The bill was dark. The bluish wing patch was not visible except on one occasion, when the bird ruffled and settled his wings.

The bird was still present, on April 23, but could not be discovered when I visited the march on April 26, nor on any of several later visits.—R. A. Grant, 111 E. 9th St., Morris, Minnesota.

EARLY WHITE-RUMPED SANDPIPER AT SALT LAKE—On April 27, 1963 Bob Janssen, Brother Theodore and I were at Salt Lake, Lac Qui Parle County, watching the first part of the shorebird migration. The usual species were present, and also included were Least Sandpipers, a bit earlier than usual. One small "peep" in fall plumage had us puzzled. As we approached it for closer study, its call-note revealed its identity. To prove further that it was a White-rump, we flushed it and saw the white rump as it flew by us along the shore-line. We were quite surprised, as we usually don't see the White-rump until about the middle of May. When we returned home, I checked T S. Roberts dates. He lists the average date of arrival as May 11, and the earliest date he shows is May 5. Ours appears to be the first April record for Minnesota. A recent issue of South Dakota Bird Notes lists one occurance on April 26. This might be expected, since the White-rump is a prairie migrant. Ronald L. Huber, 3121 Georgia Ave. So., Minneapolis 26, Minnesota.

OWLS ATTACK HUMAN BEINGS—That owls will attack human beings is well authenticated. Bent (Life Histories of North American Birds of Prey, Part 2, 1938) cites cases of both Barred and Great Horned Owls attacking men who were studying the nests containing eggs or young. Bent himself was attacked under such circumstances by a Great Horned Owl which almost buffetted him from the tree; his clothes were pierced and he received two ugly wounds in the scalp. A Barred Owl attacked another investigator on three occasions. Its talons pierced his heavy shirt and left marks on his skin. Bent referred to attacks by Great Horned Owls where there was no provocation. These usually occurred at night and generally the head was attacked, particularly if the victim was wearing a light-colored cap or one made of fur, which the owl mistook for some type of prey.

On May 3, 1940, we collected an addled egg and a newly-hatched young from the nest of a Barred Owl, some 35 feet from the ground in a dead Balsam Poplar. We were not attacked. We returned to the area on May 16 to find one of the adults near the nest. While climbing the tree the bird buffetted me heavily. Investigation failed to show any eggs but they were probably preparing to renest as the same pair did in 1942 and 1943 under similar circumstances. However, the tree blew down in a storm shortly after our visit. We were not attacked when we inspected the nest of what we supposed was the same pair on four occasions in 1942 and 1943.

During the past 25 years at the Canadian Lakehead we have heard many reports of people being attacked at night by owls. Usually the Great Horned Owl has been the species involved. On May 23, 1951, we were asked to investigate a camp east of Port Arthur where a "big bird" had repeatedly attacked a small dog and perhaps with some reason terrified the campowners. The mystery was readily solved when we found a nest of the Great Horned Owl containing nearly full-grown young, in a tree only a few feet from the back door of the camp and about 12 feet from the ground.

Recently two attacks by owls have been made on human beings in this region. These might well have had serious consequences and actually did result in severe injuries to the victims. On March 4, 1963, a Great Horned

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Owl attacked Chris Weber, foreman of the Tartan Motel at English River, 120 miles west of Fort William, as he walked some fifty feet from his trailer-home. The bird landed on his shoulders and when Mr. Weber grasped it, it passed one talon about his chin and drove another through his ear. The previous night at 10:30 p.m. this, or a similar owl, crashed a trailer window at which Weber was sitting, fell to the ground but then escaped. The owl, a female, which attacked Weber, was brought to me by officers of the Ontario Department of Lands and Forests. I have presented it to the National Museum of Canada. It should prove a welcome addition to their collection, coming from an area supposedly occupied by Snyder's recently described sub-species, scalariventris, a race which should be looked for in Northeastern Minnesota.

On March 6, 1963, a family group of mother, father, and six and fouryear old daughters were walking at dusk along a road near Port Arthur, the youngsters running ahead of their parents. Suddenly a large owl attacked the six-year old. It first dug its talons into her bonnett, then charged her and tore a gash above her right eye which required seven stitches. As the child screamed, the owl released its hold and flew into a nearby tree where it remained. Unfortunately the species of owl was not determined.

It is probable these attacks took place near nesting areas of the owls as one would expect the Great Horned Owl to be nesting by early March. Dear found a nest with two eggs on March 8, 1933, and a nest with three eggs on March 24, 1935. That this could be so, without the individuals concerned being aware that their activities, was evidenced in the case cited above where a nest was immediately adjacent to a cottage without the owners being aware of its presence.—Regional Laboratory, Ontario Department of Health, Fort William, Ontario.

NESTING RECORD OF THE GRAY JAY IN ITASCA COUNTY—Although the Gray Jay is a resident of Northern Minnesota, its nest is rarely found. On April 11, 1963 a nest of this species was observed and photographed by myself and Dale Gorman of the U. S. Forest Service. The nest was located in a spruce-tamarack swamp in Itasca County, near the town of Marcell. It was situated in a black spruce about 2 inches in diameter, next to the trunk, about 8 feet high. It was loosely constructed of coarse twigs with a lining of grass and feathers. The nest contained 2 speckled eggs. One incubating adult was present. John Mathisen, Box 512, Cass Lake, Minnesota.

SPRAGUE'S PIPIT IN THE FELTON AREA—On June 17, 1961, members of the Avifaunal Club revisited the prairie marshes and fields in Mahnomen, Norman, and Clay Counties.

About 11:00 a.m. the group arrived at a portion of the beach of Glacial Lake Aggasiz, known as the Norcross Beach,  $1\frac{1}{2}$  miles south and  $4\frac{1}{2}$  miles east of Felton, Clay County. This area is adjacent to the Clay County Sand and Gravel Company's pits, and the ridge formed by the beach rises gradually from the valley floor. On top of the ridge, which rises about 50 feet in about 34 miles, the area to the south consists of a pasture which is grazed by livestock (sheep), and the area to the north is virgin prairie which is not grazed or otherwise disturbed by farming. A low spot in the center of this field contains a small poplar grove about  $\frac{1}{2}$  block wide and one block long.

We were revisiting this area to see Chestnut-collared Longspurs which we had discovered in 1960, and to search for Baird's Sparrows.

We had split up into several groups to better cover the area. W. R.

Pieper and Dave Pearson reported sighting what they believed to be a Sprague's Pipit in the pasture. As the bird was constantly ducking out of sight, only brief glimpses could be had, but the bird was definitely walking and had only the outer tail feathers white which eliminated its being a female longspur. Meanwhile R. L. Huber reported hearing a song with which he was not familiar, while searching part of the virgin prairie area to the north. He felt that this might be the Sprague's Pipit song.

Encouraged by these reports the entire group began to search the prairie area in an effort to locate the songster and establish its identity. It was immediately apparent that the songs were coming from overhead and all eyes were directed upwards trying to locate the bird. At last Pieper located the bird and was able to point it out to the others. The sunlight shining through the wings and tail made them appear translucent and the bird looked like a brown edition of a Snow Bunting. The white outer tail feathers were plainly visible. All present were positive of its identification.

A little while later the bird was heard again and it was sighted by Harding Huber and watched by him for about 15 minutes while the others took up positions about the field so as to insure the bird's descent would be near someone. Then Harding Huber reported that the bird was coming down and several of us saw it as it neared the ground not far from the poplar grove. It was met by another bird rising from the ground and both flew off around to the other (west) side of the grove. We pursued and succeeded in flushing both birds again and they flew a short distance. We caught up with them again near the southwest corner of the grove and flushed them again. The bird I watched (the male?) proceeded to mount skyward flying upwards in stages as one would ascend if he were walking up a series of ramps, first north, then west, then south, etc., going about 30 yards in each direction, gaining altitude with each step. When it concluded this climbing it was up about 200 feet and commenced to sing. Those observers who followed the activities of the other bird (female?) reported it flew the rest of the way around the grove and returned very near or at the spot from where it had risen to meet its mate on the east side of the grove. She had thus completely circumnavigated the grove. The literature mentions the fact of an affinity between the birds and a poplar grove. The relationship has not been explained as yet to my knowledge.

The song was unique to our ears. It consisted of a series of double-note phrases descending in a sort of spiral effort, and would have given us the impression of two birds singing a duet if we had not been aware of the fact there was only one. To me, it called to mind a description of the song in Bent (1950—Life Histories of North American Wagtails, Shrikes, and Vireos) where an observer likened the song to the dropping of a silver chain into a coil.

Due to the nature of this trip, no more time could be alloted to further field work on this species. Another visit was made on July 4, 1961, the details of which will appear later in this account.

It is mentioned in the literature that this type of ground-nesting bird, while preferring deep grass for its nest, chooses open areas of sparse vegetation to search for food. This fact may serve as an explanation for the presence of the first pipit in the pasture. Many Chestnut-Collared Longspurs inhabit this pasture, but no nests were found there. But a nest of longspurs was found in the long prairie grass. The female was trapped by laying mist nets over the nest and after she returned to the nest she was flushed into the nets and banded.

Other ground-nesting species sighted included: Marbled Godwit, Upland Plover, Horned Lark, Western Meadowlark, Grasshopper Sparrow (2

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nests, July 4, 1961), Savannah Sparrow, and Clay-colored Sparrow.

A visit to this area on July 4, 1961, resulted in the sighting of the Baird's Sparrow in an adjacent field about 1½ miles northeast of the above described field. Greater Prairie Chickens also inhabit this field. Five Baird's Sparrows were sighted and all were singing.

Sprague's Pipit's were located again at the same location as before. A count was made of the flight impulses between songs and a variation from 5 to 21 was noted. It was also noted that the singing bird always faced into the wind. This was also the case on June 17, 1961. It may be that due to the loss of altitude during the song the flight which ensues is made to regain altitude and position. Perhaps the flight impulse variation was due to the gusty winds that prevailed that day. A visit to the area on a calm day may prove this out if the flight impulse variation then is not so great.

While no nest was located it must be assumed that the bird nests in the area.

On June 9, 1962, in the same area, a male bird was seen descending from a performance and was joined by the mate at a much higher altitude (50 ft.) than before. They then engaged in a lengthy series of tumbles and wrestle-like maneuvers before both returned to the ground. William R. Pieper, 2702 Kentucky Avenue N., Minneapolis, Minnesota.

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KING EIDER AND HARLEQUIN DUCK IN LAKE COUNTY—On January 5, 1963 my husband and I spotted an eider on Lake Superior off Knife Island at Knife River, Lake County. It remained there for a week and on January 13, 1963 it was collected by Grover E. Gillespie. The specimen was given to the Museum of Natural History in Minneapolis where it is now in their collection. It was identified as an immature female King Eider, and is the first record for Minnesota for this species.

During the week it was under observation, it remained in the same spot, close to the rocky shore of the island. Identification of the bird as an eider was postulated from the shore, 1500 feet away, and was confirmed when I was able to get within about 30 feet of it in a small boat. However, since the bird was a female, it was not possible to ascertain the species. The difference between female King and Common Eiders is the shape and length of the bill and bill processes—an identification mark only to be used at very close range in the field, if at all. The adult female King Eider also has a more rufous plumage than the Common Eider, but the immature females of both species cannot be separated in this way since they both are a buffy brown.

On January 8, 1963, while observing the eider, I saw a male Harlequin Duck feeding with some Common Goldeneyes in the bay at Knife River. The Harlequin Duck was probably not a fully adult male since the white markings on the side of the head, neck and shoulder were clearly visible but no markings on the back or the wing could be seen though it was observed for about a half-hour under excellent light and water conditions from a distance of about 500 feeting using a 30 power spotting scope. Though it was present until observation ceased at dusk on the 8th, it was not seen again.—Janet C. Green, 1923 Greysolon Road, Duluth 12, Minnesota.

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BOREAL OWL FLIGHT ALONG THE NORTH SHORE, 1963—From February 15 to March 21, nine observations of Boreal Owls were made along the North Shore of Lake Superior. For a species as rarely seen in Minnesota

as this one, this would seem to be a minor invasion. It is interesting that no reports were made from the interior and that all but two of the owls were seen within sight of Lake Superior. The observations are listed below.

1. 2/15-20; one seen three times around feeding station; Rollins Creek, near

Lutsen, Cook Co.; Wegstein fide M. Aftreith

 3/1; one found dead; French River, Lake Co.; John Hale (specimen given to U. of Minn., Duluth)

- 3. 3/9; one seen; Burlington Point, Two Harbors, Lake Co.; H. Huber, R. Huber, W. Pieper, J. Green (photograph obtained)
- 4. 3/16; one found dead; north of Grand Marais, Cook Co.; fide A. E. Allin

5. 3/20; one seen at feeding station: Schroeder, Cook Co.; M. Aftreith

- 6. 3/20; one seen at feeding station; Rollins Creek, near Lutsen, Cook Co.; Wegstein fide M. Aftreith (not the same as No. 5 because both were seen at the same time)
- 7. 3/20; one seen on window feeding shelf at night; Cramer Rd., Schroeder, Cook Co.; Johnson fide M. Aftreith (might be the same as No. 5 but the location is two miles away and inland.)

8. 3/21; one seen; Burlington Point, Two Harbors, Lake Co.; G. Church fide J. Green .....

 3/21; one seen; shore at Encampment Forest, Lake Co.; B. Penner fide J. Green

Janet C. Green, 1923 Greysolon Road, Duluth 12, Minnesota

PIPING PLOVER IN MINNEAPOLIS—Several species of shorebirds occur yearly in Minnesota but are seen so seldom by observers or are seen in such small numbers that they are of special interest. Among these is the Piping Plover. T. S. Roberts (1963) called it a rare migrant and a non-breeder. He did not list any Hennepin County records. Subsequent to Roberts' time, the Piping Plover was found breeding at Duluth. They seem to have recently disappeared as breeders from Minnesota Point, Duluth, perhaps because of competition with the Common Tern. The only other recent records are from Salt Lake, Lac Qui Parle County, Gaylord, Sibley County and Lake-of-the-Woods. Birds of the Minneapolis-St Paul Region (1957) lists two records for the Twin City area.

On May 10, 1963 a single Piping Plover, two Semipalmated Plovers (excellent for comparison with the Piping) and a Baird's Sandpiper were feeding together on a small, sandy peninsula on the south shore of Lake Calhoun in Minneapolis. It was first seen by Bill Pieper, who showed it to the Huber brothers shortly thereafter. The area also serves as a sun-bathing beach but was unoccupied because of overcast skies. As a result, the birds remained the whole day and were seen by numerous other observers during the afternoon. Ronald L. Huber, 3121 Georgia Ave. So., Minneapolis 26, Minnesota.

### **BOOK REVIEW**

BIRD SONGS OF SOUTHEASTERN MINNESOTA by Nelson W. and Florence B. Barker. Custom Printing Inc., Rochester, Minnesota. 102 pp. 1963. \$3.50. Paperback Edition \$2.00. 12" Disk Record. Tom Jones Recordings, Rochester, Minnesota. 1963. \$3.50.

All members of the Minnesota Ornithologists' Union must take their hats off to fellow-members Florence and Nelson Barker. Their new book and recording "Bird Songs of Southeastern Minnesota" are excellent examples of what amateurs can contribute to scientific ornithology and to their own enjoyment of their hobby. The Barkers have written down for our reading pleasure their six years of experience in recording bird songs. Their article, "Experiences in Tape Recording Bird Songs in Southeastern Minnesota" appears elsewhere in this issue of The Flicker. This article is must reading for all of us. The publishing of a book on bird songs and the actual making of a record is no easy task. The frustrations and problems encountered are many but they are solved by the Barker's enthusiasm for their project. The disk record contains songs of 32 species of birds recorded by the Barker's in Wabasha, Olmsted, Winona, Fillmore, and Houston Counties, Minnesota. The book contains descriptions of the songs or characteristic call notes of all the more common and quite a few of the less common nesting land birds of southeastern Minnesota. These descriptions cover 89 species.

The introduction to the book contains sections on: Geography, Topography

and Bird Populations of Southeastern Minnesota, Bird Songs and their Identification, Criteria for the Identification of Bird Songs, Classification of Bird Songs of Southeastern Minnesota According to Pattern and Arrangement of Notes, and Annual Chronology of Bird Songs. The section on Annual Chronology is most interesting and should prove to be most valuable to Minnesota birdwatchers. It provides a guide to when one may expect to hear certain species of birds sing in this area.

The Barker's believe that for ease in learning bird songs you must have a written description of the song plus the actual recording. This reviewer certainly agrees with the Barkers and they have done a masterful job in the actual recording of the song and the written description is excellent and easy to read.

The book and record are available at the following stores in Rochester, Minnesota: Monte's Gift and Stationary Store, 225 S. Broadway; Lucy Wilder's Book Store, 113 First Avenue S. W.,; and Adams Bookstore, 16 S.W. Second Street and in Minneapolis the book and record are available from the Museum of Natural History, University of Minnesota and the Minneapolis Audubon Society.

The Barker's are planning on putting out another record this fall containing 40 additional bird songs of southeastern Minnesota. After hearing and reading their present work all birdwatchers will anxiously await the next recording.

Editor

# The Flicker

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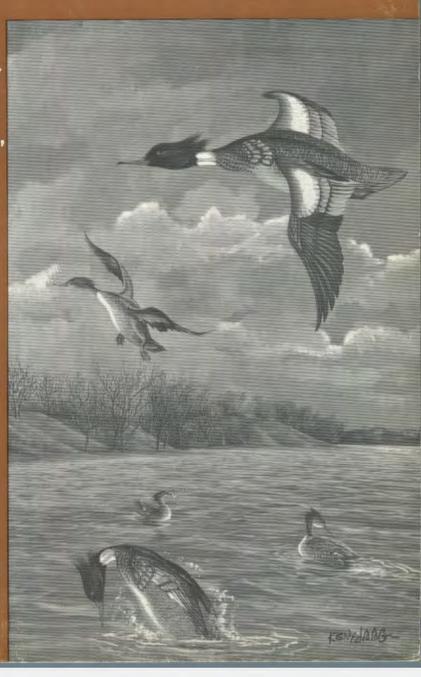
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# THE FLICKER

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### FRONT COVER

Red-breasted Mergansers on Lake Phalen, St. Paul.
Painting by Ken Haag.

### PRESIDENT'S PAGE

Aldo Leopold pointed it out in his "Sand County Almanac" when he said, "Like ions shot from the sun, the weekenders radiate from every town, generating heat and friction as they go." Ease in travel, more leisure time, better communication, all have lead to the explosive growth of the tourist industry.

Chambers of Commerce, local administrators, business development bureaus, all talk about it glibly but I am convinced that they neither understand its implications nor its problems. Because the monies derived do not have tangibility, only those who deal with recreation as a whole realize the impact that tourism has on the economy of an area. Secondly, there is among the general public a completely misunderstood conception of what the tourist is seeking. Who is satisfied with the county fair sideshow after they have seen Disneyland? Which provides the greater thrill, a bear in Yellowstone or a wolf seen in Minnesota? And third on our list of "misunderstoods" is the failure to recognize by those concerned that the tourist of the present is a different "breed of cat," searching for values similar to those he has looked for since time immemorial, but deriving these values in a different way. It is no longer necessary to derive pleasure from a wild animal at the barrel of a gun or at the end of a line. The normal destruction of our land and the development of good and reasonably priced cameras and binoculars have changed this.

As a group of people primarily interested in birds, what stake do we have in the promotion of the "new" idea in recreation? What can we do and why should we?

First of all, a successful resorter in northern Minnesota means more money in the pocket of the farmer in Albert Lea. Increased prosperity in any corner of the state means increased prosperity in any other corner. If we can add to the state's economy, everybody gains. Our fishing and hunting have declined to the extent that we can offer perhaps a "state fair" variety of this form of recreation. We must give the "world's fair" banner to Canada and Alaska. However, we can compete on a world-wide basis in the commodity of birding, nature loving, or whatever you wish to call it.

Let us do this. Talk to your local Chamber of Commerce, Business Development Bureaus, and particularly your favorite resort and motel owners. Show the opportunities available to them if they develop and advertise this commodity as an attraction. Help the interested person in his planning.

If this is done, the area will serve to attract a different segment of population, the tourist industry could become a year-'round and not a seasonal business, habitat will be improved, making the area attractive not only to the people who live there, but to the animals as well. This could then lead to improved hunting and fishing. Even the greater value would be the development of a form of recreation called game management which leads to a pride in the land, and there are no horizons to this.

Sincerely, P. B. Hofslund President

# Birding in the Northwest Territories

by W. J. Breckenridge

There is always a thrill in visiting little known areas and always the possibility of recording some new ornithological observations. Both these reasons together with a need for some additional footage of Arctic movies induced me to accept the invitation of a group of ardent fishermen bound for the Far North. They had suggested that I accompany them as their guest on a trip into Northwest Territories in August, 1962, where they hoped to be among the few who had taken Arctic Char on successfully hook and line. I was to be quite independent and free to study whatever Arctic life I chose. Is there any wonder I accepted their kind invitation! The party consisted of Mr. Francis J. Trecker, Milwaukee, Wis.; Mr. William F. Rockwell, Jr., Mr. Fred C. Babcock and Mr. John Phillips, all of Pittsburgh, Pa.; Mr. Chester Mize of Atchinson, Kansas; Mr. Karl Baldwin, Appleton, Wis.; Dr. Robert Purtell of Wauwatosa, Wis.; Mr. Jack Dow, Mr. Jack Connor and Dr. W. J. Breckenridge, Minneapolis.

We left Minneapolis on the afternoon of August 14, on a DC3 plane belonging to the Kearney and Trecker Corp. of Milwaukee. After a night at Winnipeg we left early the next morning flying northwest over the Waterfowl Research Station, past The Pas and on to Ft. McMurray on the Athabaska River. North of there we passed over the Wood Buffalo National Park and the nesting grounds of the few remaining Whooping Cranes enroute to Yellowknife on the north arm of Great Slave Lake. There we transferred to a seaplane for the 60 mile flight to War-Plummer's Lodge at Taltheilei Narrows on the eastern arm of Great Slave Lake. At the Narrows the fisha good many Lake ermen hooked Trout in the 20 pound class, while I hiked, sketched, photographed and observed the wildlife. Ravens were conspicious coming in to pick up a living at the camp refuse pile and scavenging

where the fish were cleaned on a point opposite the camp. This duty they shared with the Herring and Ringbilled Gulls. Occasionally a Jaeger which I identified as a Parasitic, and Arctic Terns flew past over the lake. On several occasions I saw one male White-winged Scoter and a family of an adult female and six nearly grown young moving in close enough to shore for some long shots with the 300mm lens on the movie camera A few Redbreasted Mergansers, Pintails and Mallards were also seen on the lake. Among the tall spruce and birches a few passerine birds were seen including Myrtle Warblers, Blackpoll Warblers, Savannah, White-crowned and Chipping Sparrows. Many signs of grouse appeared but no birds were seen although Spruce Grouse surely are found there and no doubt Willow Ptarmigan at least in winter. An adult and an immature Bald Eagle flew over camp the first evening and the following day I found two nests high on a rocky cliff 400-500 feet above the lake on the east side of the Narrows. Easily identified droppings of both moose and caribou were frequently seen. Scats of Moose on the very tops of the high rocky hills surprised me. Several antlers of Caribou, found among the Caribou Moss (lichen) and the bilberries, had doubtless been shed the previous winter. I had hoped to encounter some shorebirds here but the lakes were rocky bordered and the only one to appear was a lone Spotted Sandpiper on the rocks near the lodge.

We returned by seaplane to Yellow-knife and transferred again to the DC3 for the 300 mile hop to Great Bear Lake. Yellowknife is a thriving modern town of 3,500 inhabitants, mostly Chipewayan, Dog Rib, and Cree Indians. Its economy is based largely on gold mines in the area. Ornithologically I will remember it as the town where Ravens perch on the poles and buildings as pigeons do in the southern cities. Only last year a road was

finally completed linking Yellowknife with the outside world.

Uranium mining in the Great Bear Lake area was responsible for the landing strip being built on Saw Mill Bay at the southeast corner of Great Bear Lake. It was on very sandy soil and unsurfaced but adequate for the DC3 to land. From there we were flown by an amphibian Gruman Goose plane to Plummer's Lodge on Gunbarabout 10-12 miles to the Inlet southeast. On a tiny point jutting into the Inlet Mr. Plummer has built, at a cost of several hundred thousand dollars, 7 cabins, a lodge, and service buildings, docks, etc. for accommodating fishermen. Materials were either flown in or brought in by winter tractor trains over roadless terrain from Yellowknife, 300 miles to the south. Here again the fishermen caught up to 28 pound Lake Trout, while I investigated the area back from the camp. Even at this latitude (65°40') the spruce trees grew to 60-70 feet and 20 inches in diameter interspersed with aspen, bog and white birch, some tamarack and balsam poplar. Some places appeared not unlike northern Minnesota scenes. The bare rocky hills, however, sheltered many Arctic plants and the aspens were often gnarled and twisted even growing prostrate on the ground in exposed places. I collected plants at various levels, did some sketching, collected a few birds and photographed both movies and 35 mm still pictures. Here bird life was scarce. Again grouse droppings indicated that at least Spruce Grouse and probably Willow Ptarmigan must be widespread. I did not see any of the latter here and whether or not they actually nest here I was not able to determine but I did encounter a couple of families of Spruce Grouse, adult young nearly grown. females with These were as approachable as this species usually is and I got many good pictures. I had questioned reports of Sharp-tailed Grouse being found here but on the second day I found an adult female with six young nearly grown. The young appeared so like the young Spruce Grouse that previously I had photographed one, tentatively identifying it as a Spruce Grouse. What prompted the mistake as much as its color pattern was its unperturbed actions. Both the adult female and the young were fully as confiding and unafraid as any Spruce Grouse I have seen. Several settled down to dust in the remains of a rotton log while I was photographing them at 40 feet. Never had I seen Sharp-tails as approachable as this! On later checking the birds' known range in the fifth edition of the A.O.U. Checklist I found they were known to occur as far northeast as Ft. Simpson and Ft. Good Hope on the Mackenzie River which is fully 200 miles to the southwest of this locality.

I was interested in the presence of Robins at this high latitude. The most northerly record was Port Radium. latitude 66°05'N. The birds seen and photographed were obviously migrating flocks of 3 or 4 up to 15 or 20 individuals. They appeared to be lighter gray on the back and with an unusually prominent white eye ring. Such birds make up the latest flights of migrant Robins found in Minnesota and these birds had attracted my attention for many years. The birds were on the move with a number being seen or heard for a few minutes, then literally hours would pass with no more appearing. Frequently, they would alight momentarily on the tops of the spruce spires and the only one I was able to collect fell in the dense branches which forced me to climb a very uncomfortable 20 feet up through the almost thorny branches of a spruce tree to retrieve the specimen. Whether or not these birds represent an undescribed northern race, I have yet to determine.

Among the other birds collected was a specimen of the Gambel's race of the White-crowned Sparrow in immature plumage, a pinkish-sided junco probably a race of the Oregon Junco and a well grown immature Harris' Sparrow. The Myrtle Warbler was perhaps the commonest small bird. With this species nesting throughout such a vast area of spruce forests over the interior of Canada, it is not surprising that it is one of our most abundant warbler migrants. Numerous Savannah Sparrows seemed at home

in the lake border vegetation. Other species seen here included Gray-cheeked Thrush, Blackpoll Warbler, Common Redpoll, Tree Sparrow, Gray Jay, Boreal Chickadee, Yellow-shafted Flicker, Sparrow and Pigeon Hawks, Bald and Golden Eagles, Herring and Ringbilled Gulls, Common Raven, Goldeneye (probably the Common) Redbreasted Merganser and Common Loon.

experience in the Barren Grounds was limited to two trips of one day each to Tree River about 60 miles east of Coppermine and to Coppermine and Blue Nose Lake about 150 miles northwest of the village of Coppermine. The Tree River trip was primarily to fish for Char. It seems that Char will bite on artificial lures only at the time they move up the rocky streams from the Arctic Ocean to spawn. At that time the males develop the hooked jaw as does the Salmon and the males of at least certain populations take on bright colors. The Tree River population must be one of the most brilliant since the fish we took on that trip were the most gorgeous freshwater fish I have ever seen. Their bellies were bright blood red, the sides dark gray with almost iridescent red dots each surrounded by a blue ring. The face was black with pure white markings and the dark red and black fins had a white leading margin. Several were taken nearing 20 pounds in weight and the largest was 38 inches long and weighed 20 pounds and 12 ounces. Two Eskimos, David Kaiyogana and Moses Elatiak were setting nets for fish to feed the Royal Canadian Mounted Police dog teams at Coppermine and had taken pounds of these several thousand gorgeous fish. These Eskimos agreed to take us up river several miles to the foot of a rapids where Char were abundant and there the fishermen were in their seventh heaven. Since the Eskimos were netting so many, our party simply played the fish and landed them and, unless they were of trophy size, they were given to the Eskimos for the Mountie's dogs. Those retained were flown back that day to the lodge on Great Bear Lake and put in the freezer.

Few birds were seen at the Tree River but these were of interest. A single Willow Ptarmigan was seen on the river bank while a family of an adult female and seven young Redbreasted Mergansers dived past the boat in the river. Near the river's mouth a female Pintail and female Green-winged Teal were found swimming about in a pond just back from the Inlet. This is 200 miles east of the recognized range for the teal. Far out in the river's mouth was a Blackthroated Loon, close enough for identification but too far for good viewing or photography. A Glaucous Gull and several Herring Gulls alighted on a wide mud flat and Parasitic Jaegers, a Common Raven, Water Pipits, Savannah Sparrows and Lapland Longspurs were identified along the shores.

The all-too-short trip to Coppermine village and Blue Nose Lake produced several exciting bird experiences. Most of our time at the village was taken up with visiting and photographing the Eskimos who were living in tents or small wooden houses here under rather civilized conditions, living in part by fishing and trapping and part by employment at the various government operations. Obviously dogsleds were their main means of transportation since perhaps 150 dogs were tethered about the town, each Eskimo family having its own team. A birder would notice that Savannah Sparrows, Water Pipits and Lapland Longspurs took the place of House Sparrows about the village. Enroute to Blue Nose Lake we flew over hundreds of lakes and here and there we could find a lake with two tiny white dots close together on its surface. Binoculars showed they were Whistling Swans. Some were accompanied by one or two young. Just before landing we flew low enough to distinguish the birds and get a few recognizable movie shots. Blue Nose Lake was roughly 40 miles long and 8 or 10 miles wide lying 150 miles north of the Arctic Circle and 10-15 miles back from the Arctic Ocean. Here we landed with the pilot's frustrating comment that we could not stay longer than two hours! I shouldered my pack of gear and set off over the tundra. Within 10 minutes a fast

flying hawk appeared and flew directly over my head giving me my first and only opportunity to identify a Gray Gyrfalcon. Its features resembled a Peregrine but with slightly slower wing beats and less pointed wings. It disappeared over a ridge in pursuit of some shorebirds-identity unknown. A little later a Barren Ground Caribou bull put in its appearance and circled me in a curious but not frightened manner at perhaps 200 yards. When it picked up my scent instead of becoming alarmed and beating a quick retreat it walked directly toward me finally turning aside when only about 100 feet away. All the while I was completely in the open photographing it with a 300 mm lens on a tripod. At closest range only its head and velvetcovered antlers appear in the picture. This no doubt was one of the highlights of the entire trip.

But ornithologically perhaps the highlight occurred here at Blue Nose also. I was photographing a Lapland Longspur when glancing back over my shoulder I noticed a pair of Long-tailed Jaegers darting about near a rocky outcrop perhaps 300 yards distant. I then realized they were teaming up in pursuit of a hapless Lapland Longspur. The chase continued now high in the air and then plunging earthward but, there being no cover of trees or bushes for the quarry to seek, the longspur's only chance was in aerial gyrations and in this the jaegers are past masters. In a couple of hundred yards the chase was over, the jaegers alighted on the tundra and in a few short moments the prey was devoured. I was standing by my movie camera on its tripod through all this exciting action but the field of the 300 mm lens was so small and the action so rapid I succeeded in photographing only a flash of the finish of the chase but in my mind I will long see this thrilling act which fittingly climaxed the ornithological phase of this rewarding Arctic sojourn. Museum of Natural History, University of Minnesota, Minneapolis 14, Minne-

### **HAWK-OWL INVASION, WINTER 1962-63**

by Janet C. Green

Anyone who has been reading the "Seasonal Report" for the last three issues of The Flicker is aware that this last winter was the winter for Hawk-Owls. Although a listing most of the records has appeared in the "Seasonal Report," I have a few more and have summarized all the observations for the state in Table 1. With so many owls in the area it is not always possible to decide which observations were of the same owl. In counting the number of owls, I have lumped together those observations that were obviously of the same bird (seen in the same place on successive occasions) but the others I have counted separately. The falling off of the number of owls seen in the middle of the winter is probably due more to inactivity of bird-watchers at this season rather than fewer owls present.

The first report for the state was

one shot near Hibbing on October 6, 1962 and preserved in the collection at St. Cloud State College. No other observations were made until one was collected near Stacy, Chisago County on October 20, 1962. The next observation was on the 26th and really signalled the start of the heavy flight which continued through November. Since usually only one or two Hawk-Owl observations are made each winter, this season they were present in invasion numbers up to the third week in April.

The number of owls seen in each county and the date of first and last observations are summarized in Table 2. It is obvious that the invasion was confined to the counties within the coniferous forest zone, though a few owls overstepped this habitat and landed as far south as Wabasha, Wabasha

County. The ones seen at Mud Lake. Traverse County and St. Paul, Ramsey County were also far outside the usual winter range. The great number of observations for St. Louis County is of course due to the greater number of and more communication between bird-watchers here, as well as its larger area. Trips that Ron Huber took to the muskeg country around Red Lake in Beltrami and Lake-of-the-Woods Counties in early December and early January produced one Hawk-Owl for every two or three miles which was density greater than any observed in St. Louis County. However, the Hawk-Owls seemed to linger longer in the area around the Mesabi Range, St. Louis County than elsewhere. A trip in early April to Red Lake did not turn up any Hawk-Owls though they were still being seen in the back country south of the Range. The last owl seen (by R. Huber, W. Pieper and J. Green) was on May 5, 1963 in this area (near the town of Markham).

A few Hawk-Owls were seen regularly enough to give an idea of how long they remain in one place. The one near Wabasha was seen from November 11, 1962 to January 28, 1963. One was seen in rural Duluth from December 30, 1962 to January 26, 1963 and one was seen in Knife River, Lake County from January 28, 1963 to February 23, 1963.

Editors Note: On June 21, 1963 a single Hawk-Owl was seen along Highway 24 between Cook and Lake Vermillion in St. Louis County. The bird was perched on a telephone wire. This could indicate a possible breeding pair in this area.

#### TABLE 1

Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
No. of Observations 25	55	26	19	18	20	6	1	170
Probable No. of Owls 17	45	18	10	10	18	6	1	125

#### TABLE 2

County	No. of Owls	First seen	Last seen
St. Louis	61	10/6	5/5
Aitkin	11	11/4	3/9
Lake	10	10/31	2/23
Beltrami	8	12/2	3/23
Lake-of-the-Woods	7	12/2	2/24
Itasca	6	11/16	3/10
Carlton	5	11/10	3/9
Cass	3	11/13	12/26
Cook	3	11/4	4/6
Wadena	2	11/13	2/2
Pine	2	2/17	2/17
Wabasha	1	11/17	1/28
Hubbard	1	3/2	,
Koochiching	1	10/26	
Traverse	1	11/4	
Ramsey	1	1/15	
Mille Lacs	1	1/4	
Chisago	1	10/20	

1923 Greysolon Road, Duluth, Minnesota

# Report of a Survey of Bird Casualties

At

# Television Towers, Ceilometers, and Other Obstructions

by Elizabeth D. Velie

With the exception of a few more recent records, most of the following data was compiled between the fall of 1960 and the summer of 1961 by a group of twelve volunteer birders (all amateurs), so we readily confess that any and all errors must surely be our own.

We started out full of hope that some solution could be found to eliminate the dreadful slaughter of so many of our most desirable birds at man-made structures during their spring and fall migrations. We ended the survey with such feelings of complete futility that it has taken until now, after adding a good dose of procrastination, to even write out a report.

In regard to the ceilometer kills, however, the future looks bright, and we are printing a copy of a letter from the United States Weather Bureau in Washington, D.C., which explains much better than we can the situation at the present and their plans for the future. (See next page). If only the picture were as hopeful for the television towers!

Since we understand that there are about 500 television towers in the United States, and since our survey gives only random reports on ten to nineteen, it is easy and depressing to imagine the magnitude of the loss in bird life. And, ironically, the birds killed by these towers are almost exclusively the most desirable and beautiful of our native song birds.

The reports dealing with a television tower near Tallahassee, Florida, compiled by Mr. Herbert L. Stoddard, Sr., were by far the most detailed and comprehensive that we either read or heard of. Due to a system of daily checking of the tower since October, 1955, they are the only records that could be called complete in any sense regarding bird mortality. During a stop which we were fortunate enough to have made at Mr. Stoddard's last winter, we were able to see at first hand the wonderful work that he is doing. It was both an inspiration and a pleasure to meet and talk with him and Mrs. Stoddard.

We learned from our varied reading that operators of television towers are rarely aware of bird kills at their towers due to one or many causes, including poor terrain for visibility, rain during many kills, or the work of predators which seem to increase in these areas when dead and crippled birds are not picked up quickly.

# UNITED STATES DEPARTMENT OF COMMERCE WEATHER BUREAU WASHINGTON

September 21, 1962

Mrs. Charles K. Velie Route 1, Box 326 Long Lake, Minnesota

Dear Mrs. Velie:

In recent years, we have been buying only the rotating-beam type ceilometers, and have provided filters for use at a few fixed-beam ceilometer stations, where bird casualties have been a problem. We have not heard of any serious problem since this has been done.

There are two reasons why we think that the rotating-beam ceilometer may not present a problem: (1) the energy peak in the beam of the rotating-beam ceilometer is toward the lower (infra-red) end of the light spectrum, whereas it is in the upper (or near ultraviolet) end of the fixed-beam ceilometer; (2) the rapid movement of the beam probably does not attract and hold the birds attention, as does the fixed beam.

The reason we have not equipped more fixed-beam ceilometers with filters, is that they are relatively expensive, and we have not been advised of any specific problem areas, since these actions were taken.

We hope that the problem will disappear entirely in time, even if it is not solved now, since, as the fixed-beam ceilometers wear out, we expect that they will be replaced by the rotating-beam type or even newer types as they are developed.

Sincerely,
A. K. Showalter
Chief, Observations and
Station Facilities Division

We also have gathered from our survey that "killing nights" can be predicted with great accuracy by judging the weather pattern in relation to the time of year. This being the case, can the owners or operators of these various colossal structures be persuaded to experiment with methods of keeping the birds away during these lethal periods? Would either dimming or filtering the lights reduce the hazard to birds and still keep structures properly lighted for airplane safety? Has anyone tried some method of up-wind drafts around the towers, or tape recordings of cat meows or owl hoots or loud-speakers? Or does anyone reading this report know of any effective method that would be practical to try? Do you have a friend gifted with a scientific mind whom you might question?

Although in a sense this is a report on a survey already done, we prefer it much more to be a plea to all ingenious people anywhere who can dream up a solution to this dreadful problem. We urge you to send your suggestions in care of this publication as well as any experiments you may have tried and found promising. Let us all work together so that future generations may enjoy the same pleasures with birds that it has been our good fortune to have in such abundance.

We wish to acknowledge unhesitatingly that we could never have completed or even started such a survey without the expert advice, the necessary encouragement, and the generous help given us so freely by Dr. W. J. Breckenridge and Dr. Dwain W. Warner of the Museum of Natural History at tht University of Minnesota. The unlimited use allowed us of the library at the Museum was indispensable to such a survey. Also the many kind letters and suggestions we received from others more experienced than ourselves: Dr. Clarence Cottam; Dr. Chandler S. Robbins; Dr. John E. Trainer; Dr. E. R. Kalmbach; Mr. Herbert L. Stoddard, Sr.; Mrs. F. C. Laskey; and Dr. Charles A. Kemper-and also the many dedicated people who wrote the articles we surveyed.

To those who worked on the survey, my special thanks for their unselfish. capable, and often tedious hours of reading and recording. It was all done solely for the birds.

Katherine D. Andrews Margaret C. Case Marion E. Cross Caroline E. deLaittre

Janet V. Hartwell Clara C. Lyman Charlotte W. McCarthy Margaret L. Ueland Nanette H. Meech

Margaret D. Osborne Nancy G. Plimpton

### I. TELEVISION AND RADIO TOWERS

NAME	SOURCE	APPROXIMATE LOCATION	DATE	OBSTRUCTION AND HEIGHT	SIZE OF KILL ESTI. COUNT	WEATHER	
Brewer and Ellis	The Auk Vol. 75, No. 3 p. 400-412 Oct. 58	Mahomet Illinois	Sept. 1955 to May 1957 7 dates fall & spring	TV Tower 983'	486 of 5 species	low ceiling nights fog in fall cold front preceded	
Cochron and Graber	Wilson Bulletin Vol. 70, No. 1 p. 378-380 1958	Mahomet Illinois	May 29-30 1957	TV Tower 983'	large	overcast mist falling	
Johnston, David W.	Oriole Vol. XX, No. 2 p. 18 June 1955	Atlanta Georgia	Oct. 6-7 1954	TV Tower 1062'	600	cold front and low ceiling after 1 month of hot, dry spell	
Johnston, David W.	Oriole Vol. XX, No. 2 p. 20 June 1955	North Augusta South Carolina	Oct. 7-8 1954	TV Tower 500'	200 81	cold front overcast drizzle	
Johnston, David W.	Oriole Vol. XX, No. 2 p. 24 June 1955	Camp Cornelia Georgia	Oct. 7-8 1954	Radio Tower 200'	900 883 31 species	cold front strong NNE wind misting	
Kemper, Dr. Charles A.	Passenger Pigeon Vol. XX, No. 1 p. 3-9 spring 1958	Eau Claire Wisconsin	Aug. 29 1957	TV Towers (2) 1000' 500'	300— 500		
Kemper, Dr. Charles A.	Passenger Pigeon Vol. XXI, No. 4 p. 135-142 winter 1959	Eou Claire Wisconsin	Sept. 3 1957	TV Towers (2) 1000' 500'	300— 104 400 19 species	north wind	
Kemper, Dr. Chorles A.	Passenger Pigeon Vol. XXI, No. 4 p. 135-142 winter 1959	Eou Claire Wisconsin	Sept. 20 1957	TV Towers (2) 1000' 500'	20,000 1525 40 species	ropid NE cold front low ceiling	
Kemper, Dr. Charles A.	Possenger Pigeon Vol. XXI, No. 4 p. 135-142 winter 1959	Eau Claire Wisconsin	May 28 1959	TV Towers (2) 1000' 500'	71 10 species	low moving north rain	

### I. TELEVISION AND RADIO TOWERS

NAME	SOURCE	APPROXIMATE LOCATION	DATE	OBSTRUCTION AND HEIGHT	SIZE OF KILL ESTI. COUNT	WEATHER
Kemper, Dr. Charles A.	Passenger Pigeon Vol. XXI, No. 4 p. 135-142 winter 1959	Eau Claire Wisconsin	Aug. 28-29 1959	TV Towers (2) 1000' 500'	834 39 species	cloudy E-W front
Kemper, Dr. Charles A.	Passenger Pigeon Vol. XXI, No. 4 p. 135-142 winter 1959	Eau Claire Wisconsin	Oct. 1 1959	TV Towers (2) 1000' 500'	1200 821 51 species	overcast north wind daylight
Kemper, Dr. Charles A.	Mpls. Sunday Tribune 9-25-60 Trygve M. Ager, reporter	Eau Claire Wisconsin	Sept. 22-23 1960	TV Towers (2) 1000' 500'	10,000— 15,000	And the development of the second of the sec
Laskey, Amelia		Nashville Tennessee	Sept. 10- Nov. 13 1960	TV Towers (2) 7 miles apart 940' 1309'	1553 2130	cold front drizzle
Parmalee, Paul and Barbara	Audubon Bulletin Illinois Society	Springfield Illinois	Sept. 16-17 1958	TV Tower 998'	1000- 827 1500 40 species	fog - drizzle NNE to North wind
Stoddard Herbert L. Sr.	Stoddard Report #1	Tallahassee Florida	Oct. 1- Dec. 31 1955	TV Tower 673'	4000- 2341 7000 (1988 of 62 species on Oct. 8-9)	usually overcast fog or rainy
Stoddard, Herbert L., Sr.	Report #2	Tallahassee Florida	JanJune 1956	TV Tower 673'	1046 63 species	frequently rainy
Stoddard, Herbert L., Sr.	Report #3	Tallahassee Florida	July-Dec. 1956	TV Tower 673'	1173 89 species	unfavorable weather
Stoddard, Herbert L., Sr.	Report #4	Tallohassee Florida	JanJune 1957	TV Tower 673'	358 59 species	cloudy and windy
Stoddard, Herbert L., Sr.	Report #5	Tallahassee Florida	July-Dec. 1957	TV Tower 673'	3999 (2325 on Oct. 4-5)	windy, misty clouds
Stoddard, Herbert L., Sr.	Stoddard Report #6	Tallahassee Florida	JanJune 1958	TV Tower 673'	947 63 species	overast, fog or drizzle. favorable migrating winds coldest winter in 63 years.
Stoddord, Herbert L., Sr.	Report #7	Tallahassee Florida	July-Dec. 1958	TV Tower 673'	1183 92 species	mostly overcast
Stoddard, Herbert L., Sr.	Report #8	Tallahassee Florida	JanJune 1959	TV Tower 673'	505 60 species	bad weather
Stoddard, Herbert L., Sr.	Bulletin #1 Tall Timbers Research Station	Tallahassee Florida	Oct. 1, 1955 July 1, 1961	TV Tower (673' until 4-15-60; then replaced by 1010' tawer)	15,251 149 species	usually during ''killing'' weather
Strnad, Forest	The Flicker p. 7 Mch. 1962	Ostronder Minnesota	Sept. 3-4 1961	TV Tower 1314'	1500 526 33 species	Sudden cold spell, fog and cloud cover
Strnad, Farest	The Flicker p. 7 Mch. 1962	Ostrander Minnesota	Sept. 11-14 1961	TV Tower 1314'	901 43 species	cloudy and rainy
Strnad, Forest	The Flicker p. 7 Mch. 1962	Ostrander Minnesota	Oct. 9, 1961	TV Tower 1314'	111 26 species	
Tordoff and Mengel	U. af Kansas Pub. Museum of Nat'l. Hist. Vol. 10, No. 1 p. 1-44 Sept. 12, 1956	Topeka, Kansas	Sept. 25- Oct. 23 1954	TV Tower 950'	1090 41+ species (585 on 10-1-5	cold front overcast 4) fog
					milia ia	

### II. AIRPORT CEILOMETERS

NAME	SOURCE	APPROXIMATE LOCATION	DATE	OBSTRUCTION AND HEIGHT	SIZE OF KILL ESTI. COUNT	WEATHER
Green, Janet C.	The Flicker p. 3 Mch. 1962	Duluth Minnesota	Sept. 12 1961	Ceilometer	1000 440 29 species	Wind shift to NW—Cold front —rain (effect of Hurricane Carla)
Hickey, Margaret B.	Passenger Pigeon Vol. XXII, No. 1 Spring 1960		May 23 1952	Ceilometer	50-60 in beam constantly 242 bird calls in 4 minutes	overcast and misty
Hickey, Margaret B.	Passenger Pigeon Vol. XXII, No. 1 Spring 1960	Madison Wisconsin	Oct. 13 1959	Ceilometer	117 24 species	overast — cold (No birds ob- served in ceilometer beam during night of kill)
Howell, J. C.	Migrant Vol. 26, No. 4	Knoxville and Nashville Tennessee	Oct. 7-8 1951 Oct. 6-7 1954	Ceilometer	large	low ceiling cold front
Howell, Laskey, and Tanner	Wilson Bulletin Vol. 66, No. 3 p. 207	Knoxville Tennessee	12 dates 2 in spring 10 in fall 1948-1952	Ceilometer	LARGE except when light was turned off for 20 min.; then noticeable decrease	cold front low ceiling
Imhof and Daniel	Fish & Wildlife Service 12-8-60	Birmingham Alabama	10-8-54	Ceilometer	1600 1283 36 species	10 degree drop in temperature Winds from E-NE
Johnston, David W.	Oriole Vol. XX, No. 2 p. 20-22 June 1955	Macon Georgia	Oct. 7-8 1954	Ceilometer	50,000 2552 largest on record 53 species	Intermittant light rains. Moderately strong winds
Johnston, David W.	Oriole Vol. XX, No. 2 p. 23-24 June 1955	Savannah Georgia	Oct. 7-8 1954	Ceilometer (2) (not at same airbase)		Suddenly cold front after warm weather Drizzle— gusty winds
Johnston, David W.	Oriole Vol. XX, No. 2 p. 24-25 June 1955	Albany Georgia	Oct. 7-8 1954	Ceilometer	101 14 species	Thunderstorm rain and strong wind
Laskey, Amelia	Wildlife Rev. No. 87 Dec. 1956 The Migrant Vol. 27, No. 1	Nashville Tennessee	Sept. 24-25 1955	Ceilometer	Negligable as light was turned off	Sudden cold front—rain— wind after week of warm weather
Laskey, Amelia	Wildlife Rev. No. 87 Dec. 1956 The Migrant Vol. 27, No. 1	Smyrna Tennessee 10 miles from preceding	Sept. 24-25 1955	Ceilometer Had filter but did not use it	51 species (picked up by sackfuls)	Sudden cold front—rain and wind after week of warm weather
Newcombe and Musgrove	Des Moines Register Walter Shotwell, reporter	Des Moines, Iowa	Sept. 6 1961	Ceilometer	"Trunkful" 50	
Terres, John K.	Audubon Mag. Vol. 58, No. 1 Jan. Feb. 1956 p. 18-20	East Atlantic Coast	Oct. 1954	Ceilometer (experiments with use of filters)	Severe except when filters were used	cold front— cloudy

### III. COMBINED OBSTRUCTIONS

NAME	SOURCE	APPROXIMATE LOCATION	DATE	OBSTRUCTION AND HEIGHT	SIZE OF KILL ESTI. COUNT	WEATHER
Johnston, David W.	The Aux Vol. 74 Oct. 1957 p. 447-458	25 locations from New York to So. Atlantic Stotes	Oct. 5-8 1954	15 ceilometers 8 TV and Radio Towers 3 tall buildings 1 brightly-lighte parking area	106,804 9495 88 species d	Sudden cold front, rain, clouds, etc. after hot, dry spell
Johnston, David W.	Oriole XX No. 2 p. 22-23 June 1955	Savannah, Georgia	Oct. 7-8 1954	1 TV Tower 1 Apa. building 1 light house	289 22 species	Sudden cold front, rain
Langridge, H. P.		Palm Beach Florida under similar c R. Cointepoix in		4 shopping centers with large windows	200 plus 156 7 kinds of warblers	bright and clear low humidity Acres of brush and trees burn- ed a few miles south all during this time
MacBriar, Wallace N., Jr.	Passenger Pigeor Vol. XXI, No. 3 (reported first by Kumlein in Auk. 1888)		Sept. 21-26 1887	Old Milwauakee Exposition Bldg. over 200' high and lighted	40 plus species	Sudden cold front and drizzle preceded by pleasant weather
Overing, Robert	Wilson's Bul. No. 48 p. 222-224 Sept. 1936	Washington, D.C.	1932—fall 1933—fall 1935—fall	Washington Monument 555' (large beacons light monument since 1931)	324 331 246 33 species	Mostly clear, without moon, some wind
Overing, Robert	Wilson Bul. Vol. 49, p. 118 June 1937	Washington, D.C.	Fall 1936	Washington Monument 555' (Large beacons light monument since 1931)	523 39 species	mostly stormy
Overing, Robert	Wilson Bul. Vol. 50, p. 146 June 1938	Washington, D.C.	Foll 1937	Washington Monument 555'	945	
Overing, Robert	The Auk Vol. 55, p. 679 Oct. 1938	Washington, D.C.	Sept. 12 1937	Washington Monument 555'	576 24 species	misty night
Rietz, R.	The Auk Vol. 73, p. 150 Jan. 1956	Brunswick, Maine	Sept. 8-9 1954	Hanger-doors of airport	500— 1000 Mostly warblers and thrushes	light fog (wet doors causing reflection?)
Schotzko, Jerome	The Flicker June 1962 The Flicker June 1962	Paynesville, Minnesota also Redwood Falls Minnesota	Sept. 12 1961 Sept. 12 1961	Store windows in 4 blocks of Main Street Downtown Section	400 200+ 11 plus kinds of warblers	Warm south wind—low cloud ceiling and fluorescent lights cast an eerie glow
Tanner, James T.	The Migrant Vol. 25, No. 4	27 localities East and Southeast States	Oct. 5-8 1954	Ceilometers TV & Radio Towers brilliant parking areas tall buildings	Tremendous (1 TV tower est	cold front followed by overcost

Route 1, Box 326, Long Lake, Minnesota

### THE BREEDING SEASON

by Ronald L. Huber

Weather:

June and July were hot, with temperatures in the 90's frequently recorded. Dry spells were felt, especially on Twin Cities lawns, and in southeastern Minnesota, but the remainder of the state seemed to have normal amounts of precipitation. The prairie potholes received their fair share of rain as evidenced by the 16 species of ducks reported nesting, most of them from northwestern Minnesota. A few extreme weather conditions were noted, however. In early June, 100 mile-perhour winds, accompanied by rain and hail, ripped across the southern quarter of Minnesota, with the town of Winona feeling the heaviest damage. Some areas in the southwestern corner of our state had corn crops beaten to the ground by the hail and denuded trees remained leafless for the remainder of the summer.

A cold front hit most of the state on July 28 and thence periodically throughout the month of August. This had a pronounced effect on the first wave of fall migrants, which were already somewhat early. Paralleling the first wave of migrants was an en masse southward movement of Monarch butterflies. On Aug. 10 they were coming down through the prairies of western Minnesota in huge numbers, flying literally everywhere over the fields. Several "roosts" were noted with several hundred individuals in a single bush. Mixed with them over the fields were an occasional Regal Fritillary, Silver-spotted Fritillary, Black Swallowtail, Viceroy, Mourning Cloak, Inornate Ringlet, Pearly-eye, Pearl Crescent, numerous angle-wings and skippers.

General considerations:

The unusual fall migration will be covered in the next issue. This report will confine itself to the breeding and summer residents only. On June 8, Avifaunal Club members found a large female Spiny Softshell turtle at Homer, Winona Co. Her carapace measured 14

inches in length. Since subspecies can be determined only on young males, we could not tell which race she was. Shortly thereafter, we found a nest with 28 freshly-laid eggs, in the sandy riverbank about 20 feet from the water. During mid-June, noticeable toad movements were observed in northwestern Minnesota. We took advantage of this situation to collect 5 new county records for the Dakota Toad: Becker, Clay, Wilkin, Stevens and Roseau. Other new county records: Northern Prairie Skink, Traverse Co.: Western Smooth Green Snake, Norman Co.; Eastern Tiger Salamander, Mahnomen, Stevens and Nicollet Co., Western Chorus Frog, Isanti Co.; Mink Frog, Isanti and Pine Co.; and Silver-haired Bat, Stevens and Kandiyohi Co. On July 20, Ray Glassel took a Little Sulfur butterfly in Dakota Co., south of the Cedar Grove housing development. We believe this to be the first Minnesota specimen. Last year, in the same spot, he caught a Southern Cloudy Wing, also believed to be the first for Minnesota. On July 5, I observed 3 melanistic Franklin's Ground Squirrels in Clearwater Co., between Berner and the Sandy River.

Common Loon; St. Louis Co., Alden Lake, June 23, 2 ad, 2y, Dr. A. Kellam Lake Co., Camp Lake, Aug. 2, le, Gene Lee

Tofte Lake, July 10, 2ad, ly, Jan Green Twin Lake, July 25, 2ad, ly, Jan Green Camp Lake, Aug. 8, ad, ly and on Aug. 12, 2 y, le addled, Jan Green

S. Kawishiwi River, July 18, 2ad, ly, Jan Green

Clearwater Co., Itasca Park, May 24, 2e and June 28 2ad, ly, R. Grant Ramsey Co., July 11, 1ad, 2y, A. C.

Rosenwinkel,

Red-throated Loon: Koochiching Co., Rainy Lake, June 22, 1 seen, J. K. Bronoel. Summer records for this species are of special interest since it may occasionally breed in northern Minnesota.

Red-necked Grebe: Clearwater Co.,

Roy Lake, June 1-29, incubating, R. Grant, Avifaunal Club. Polk Co., June 28, incubating, R. Grant. Big Stone Co., Artichoke Lake, incubating, R. Grant. Mahnomen Co., June 29, ad, 4y, Avifaunal Club.

Eared Grebe: Stevens Co., Frog Lake, Aug. 31, 2 seen, Avifaunal Club. Regular summer resident here. Lac Qui Parle Co., Salt Lake, Aug 3, 1 seen, Avifaunal Club. Occasional summer resident.

Western Grebe: Stevens Co., Frog Lake, Aug. 31 at least 31 seen, family groups? Avifaunal Club. Regular summer resident here.

Pied-billed Grebe: Ramsey Co., July 13, 9 broods seen, A. C. Rosenwinkel. Nobles Co., near Round Lake, July 27, ad, 4y, Avifaunal Club.

White Pelican: Big Stone Co., Artichoke Lake, Aug. 31, 1 non-breeder seen, R. Grant, Avifaunal Club; this bird was apparently in vicinity all summer according to local reports.

Double-crested Cormorant: Big Stone Co., Artichoke Lake, 15-100 present all summer, R. Grant. Traverse Co., Lake Traverse, 30-150 present all summer, R. Grant.

Great Blue Heron: Cass Co., near Walker, April 19, 75 active nests in rookery, Mr. and Mrs. J. Mathisen. Anoka Co., Rice Lake, May 10, 120 active nests in rookery, A. C. Rosenwinkel.

Common Egret: Anoka Co., Rice Lake, May 10, 2 active nests in rookery, A. C. Rosenwinkel. Houston Co., Reno, June 8, compact flock of 56 plus, Avifaunal Club. This species has been exhibiting wandering pecularities in recent years. The Ornithology Newsletter from Manitoba this spring reported an Egret at Oak Point, St. Laurent and Ashern. These areas are adjacent to Kittson County, Minnesota.

Black-crowned Night Heron: Anoka Co., Rice Lake, May 10, 50 active nests in rookery, A. C. Rosenwinkel.

Yellow-crowned Night Heron: Houston Co., La Crescent, May 18, 3 active nests, R. B. Janssen; still incubating on June 8, Avifaunal Club. Ramsey Co., Pig's Eye swamp area, pair seen sporadically all summer by G. Laiuste. Readers will recall the widespread penetration in southeastern Minnesota as reported in the last (June) issue.

Further notice came from the *Ornithology Newsletter* of Manitoba this spring, which reported Yellow-crowns at Delta and Winnipeg. Both areas are just north of Kittson County, Minnesota, and may represent the farthest north latitudes yet reached by this species in North America. Also, a Yellow-crown showed up at Huron, South Dakota, just west of Rock County, Minn. It was only the fifth record for South Dakota.

Least Bittern: Mahnomen Co., near Waubun, June 1, 1 calling, R. Grant. Not many reports from northwestern Minnesota in recent years, probably due to lack of observers.

Whistling Swan: Cook Co., Schroeder, June 28, 1 dingy immature seen by Marie Aftreith.

Canada Goose: Washington Co., May 24, pair, 5y, D. Honetschlager.

Mallard: Numerous nestings reported for Hennepin, Ramsey, St. Louis, Lake, Cook, Becker and Mahnomen Counties. Black Duck: Lake Co., total of 13 broods in 7 localities, reported by Jan Green from July 3 thru Aug. 1, broods from 2-18y, total 83y, average brood about 6-7y.

Pintail: Stevens Co., Alberta, July 2, 2 pr with y, R. Grant.

Green-winged Teal: Stevens Co., Alberta, July 2, 2 pr with y, R. Grant. Blue-winged Teal: Numerous nestings in Hennepin, Ramsey, Winona, St. Louis, Becker and Mahnomen Counties. Shoveler: Stevens Co., Alberta, July 2, many pr with y, R. Grant. Ramsey Co., May 30, female incubating, A. C. Rosenwinkel.

Wood Duck: Ramsey Co., Bald Eagle Lake, June 1, ad, 2y, Elizabeth Campbell; elsewhere on July 13, ten broods of from 6-11y seen, A. C. Rosenwinkel. Hennepin Co., Minneapolis, May 15, ad entering & leaving hole in tree, R. L. Huber. Mahnomen Co., Twin Lakes Creek, June 29, ad, 4y, Avifaunal Club. Redhead: Stevens Co., Alberta, July 2, many pr with y, R. Grant. Mahnomen Co., Waubun, July 10, 7 broods totalling 50y, R. B. Janssen.

Ring-necked Duck: Clearwater Co., June 28, pr, 2y, R. Grant. Lake Co., Gem Lake, July 13, 2 broods, 3, 6y, Jan Green.

Canvasback: Mahnomen Co., July 7,

pr with 4y, Avifaunal Club.

Lesser Scaup: Clearwater Co., June 28, pr with 7y, R. Grant. Mahnomen Co., July 7, several pr with y, Avifaunal Club.

Common Goldeneye: Lake Co., South Kawishiwi River rapids, July 18, 2 broods, 6y each, Jan Green.

Bufflehead: St. Louis Co., Chisholm, Aug. 9, 3 seen, F. V. Strnad; also listed as "breeding" in a report from the Chippewa National Forest, but no further details as yet. This would be the first Minnesota breeding record to my knowledge. This species does breed in the Turtle Mountain area of North Dakota and there is one extra-limital breeding record from Iowa. It is therefore surprising that this species has not been found breeding in Minnesota long ago.

White-winged Scoter: St. Louis Co. line, Knife River, June 1, 6 seen, Ruth Kuchta. Like the preceding species, this one breeds in the Turtle Mountain area of North Dakota and there is one record of a presumed family group in Clearwater Co., Minnesota. The entire Boreal zone of Minnesota should provide suitable breeding habitat.

Ruddy Duck: Hennepin Co., Minneapolis, July 27, ad, 3y, R. B. Janssen. Ramsey Co., Bald Eagle Lake, Aug.

20, ad, 4y, E. Campbell.

Hooded Merganser: Houston Co., La Crescent, May 26, 2 broods, 9y, 17y, Avifaunal Club. Lake Co., Langley River dam, June 22, 8y, Ruth Kuchta. Common Merganser: St. Louis Co., Lake Vermilion, June 27, ad, 4y, V. F. Barrows. Lake Co., Triangle Lake, Aug. 1, 8y; Farm Lake, Aug. 30, 8y, Jan Green.

Goshawk: St. Louis Co., Cloquet Forest Research Center, late May, 3 eggs. All three hatched, y were banded, still in area as of Aug. 24. G. W. Gullion.

Red-tailed Hawk: Winona Co., Winona, May 18, 2 nestlings, Dr A. E. Allin. Big Stone Co., east shore Big Stone Lake, incubating krideri reported by R. Grant, a competent hawk specialist.

Broad-winged Hawk: Hennepin Co., Minneapolis, May 16-23, incubating, R. L. Huber.

Swainson's Hawk: Lincoln Co., Lake Benton, Aug. 3, 2 ad seen, Avifaunal Club.

Bald Eagle: Chippewa National Forest reports 20 of 31 nests were active, but only 10y brought off; Tamarac National Wildlife Refuge, 2 nests produced 5y. Agassiz National Wildlife Refuge, 1 known nest was unsuccessful, Superior National Forest, 7 active nests, per cent success not yet reported. Itasca State Park, 1 nest active for past several years was inactive this year.

Osprey: Lake Co., Triangle Lake, Aug. 1, ad feeding y on nest, Jan Green. Cass Co., Walker, Apr. 19, pr building, John Mathisen. Hubbard Co.,, Itasca Park, May 30, ad, 2y on nest, Avifaunal

Club.

Peregrine Falcon: Hennepin Co., Minneapolis, June 7, 1 ad seen, R. B. Janssen; could have been breeding on ledge

of tall building in city?

Pigeon Hawk: St. Louis Co., Duluth, Minnesota Point, presumed nesting since adults present all summer April 1 thru Sept. (seen monthly). Dennis Meyer, Avifaunal Club. Kittson-Roseau Co's., July 4, several pairs seen along Aspen-Jackpine edges, R. L. Huber. Sparrow Hawk: St. Louis Co., Duluth, Aug 18, 2y in nest hole in dead pine

stump. D. Meyer. Spruce Grouse: Lake Co., Moose Lake, July 3, female, 6y in Jackpine, Black Spruce, aspen area, John C. Green. On Aug 24, about 35 miles N. Two Harbors, Lake Co., short-tailed immature male found dead, Avifaunal Club.

Ruffed Grouse: Anoka Co., Aug. 10, 2y, R. B. Janssen. Clearwater Co., Itasca Park, June 28, ad, 4y, R Grant. St. Louis Co., Hibbing, July 4, ad, 8y, H. Micensky. Lake Co., Drummond line, June 16, ad, 6y, Ruth Kuchta.

Greater Prairie Chicken: Mahnomen Co., Waubun, May 24, 4 males with inflated neck sacs, dancing and display-

ing. R. Grant.

Sharp-tailed Grouse: Clearwater Co., Gonvick, last week in June, ad, 7y, George Herberg.

Bobwhite: Houston Co., Caledonia, July 22, one heard calling, George Carrol.

Ring-necked Pheasant: Numerous nestings reported from Clay, Ramsey, Houston, Rock, Anoka, Hennepin Counties.

Gray Partridge: Clay Co., Moorhead, July 17, ad, 11y, D. Meyer. Mahnomen Co., June 28, ad, 6y, R. Grant. Pipestone Co, Aug. 31, 2 ad, 15 y, Avifaunal Club.

King Rail: Anoka Co., Carlos Avery Game Refuge, July 14, ad, 2 downy

black y, Avifaunal Club.

Virginia Rail: Anoka Co., Carlos Avery Refuge, Aug. 10, ad, 1 downy black y, R. B. Janssen. Stevens Co., Alberta, several ad with 8-10 large y, R Grant. Ramsey Co., Bald Eagle Lake, ad, 3 downy y, Elizabeth Campbell.

Sora: Stevens Co., Alberta, July 18, ad,

1 large y, R. Grant.

Yellow Rail: Becker-Mahnomen Co. line, south of Waubun, present all summer and presumed breeding although no nests located. R. Grant, Avifaunal Club.

American Coot: Numerous breeding reports from Kittson, Nobles, Nicollet, Ramsey and Hennepin Counties.

Piping Plover: St. Louis Co., Duluth, Minnesota Point, presumed breeding, since they were present from May thru Sept.; just across the harbor, on Wisconsin Point, Dennis Meyer found a nest with 4 eggs on June 21.

Killdeer: Numerous breeding reports from Winona, Beltrami, Ramsey and

St. Louis Counties.

Upland Plover: Becker Co., June 28,

pr. 2y, R. Grant.

Spotted Sandpiper: Lake Co., Donna Lake, June 16, 4 eggs, R. Kuchta. St. Louis Co., Duluth, 5 broods of 1-3y, D. Meyer.

Willet: Lac Qui Parle Co., Salt Lake, present every summer but nest as yet

not located. Avifaunal Club.

Herring Gull: Lake Co., Knife Island, June 12, 425 banded, Jan Green, P. B.

Hofslund, et al.

Forster's Tern: Ramsey Co., July 13, y just out of nest, A. C. Rosenwinkel. Hennepin Co., Minneapolis, July 4, ad, 2y, R. B. Janssen.

Common Tern: St. Louis Co., Duluth, Minnesota Point, June 23, 60-plus adults incubating; 5 nests examined each contained 3 eggs, Avifaunal Club. Becker Co., July 18, 3 nests with 2, 2, 3 eggs, D. Meyer.

Caspian Tern: Lac Qui Parle Co., Salt Lake, July 27, 1 non-breeder, Avi-

faunal Club.

Black Tern: Dakota Co., June 18, ad

feeding y on nest, A. C. Rosenwinkel. Ramsey Co., June 1, ad brooding 2y, A. C. Rosenwinkel

Mourning Dove: Numerous breeding reports from Ramsey, Hennepin, Clay

and Sibley Counties.

Yellow-billed Cuckoo: Rock Co., Manley, Sep. 1, ad, 1y poorly flying, short-

tailed, Avifaunal Club.

Black-billed Cuckoo: Hennepin Co., Minneapolis, May 16, pair observed in copulo, R. Huber. Rock Co., Manley, Sep. 1, ad, 1y, tailless, flying, Avifaunal Club. This species was observed throughout the summer is about 20 counties, north to St. Louis, Clear-

water and Kittson Counties.

Barn Owl: Martin Co., 2 mi S. Truman. about Sep. 1, farmer owls in his barn, reported them to Maynard Nelson of Fairmont. On Sep. 14, Avifaunal Club observed and photographed the 6y. The adults were also present. Pellets collected, 6y banded by R. Huber. This appears to be only the second nesting for our state. A Note of Interest will appear in future issue.

Screech Owl: Carlton Co., N. of Nickerson, June 23, 1 gray phase flying across road, Avifaunal Club. Stevens Co., Morris, June 26, 3 strongly flying young, R. Grant. Hennepin Co., Minneapolis, May 15-23, 1 red phase ad, 1-2y peering out of hole, R. Huber. Ramsey Co., Bald Eagle Lake, nested in oak; 4 gray phase y left nest on June 6. Family remained in vicinity thru Aug. 22, occasionally bathing in birdbath. Elizabeth Campbell.

Great Horned Owl: Traverse Co., Lake Traverse, 1y in nest with ad, Avifaunal

Club.

Hawk-Owl: June 21. Vermillion Lake. St. Louis Co., 1 seen, V. F. Barrows. July 13, Stewart Lake, near Two Harbors, Lake Co., 1 seen, John G. Hale. July 16. Vermilion Lake, St Louis Co., 1 seen, V. F. Barrows (same bird June 21?) July 26, Kelsey area, St. Louis Co., 4 seen (family group?), F. V. Strnad. July 29, Kelsey area, St. Louis Co., 6 seen (same group), F. V. Strnad. Aug. 11, Kelsey area, St Louis Co., 1 banded, F. V. Strnad. Aug. 12, Kelsey area, St. Louis Co., 1 seen, 1 found dead, F. V. Strnad. Aug. 24, Kelsey area, St Louis Co., 1 seen, Avifaunal Club. In March and April, 2 nests were

found in Douglas County, Wisconsin. One was deserted (parent killed) but the other successfully fledged 2 young. Last seen in nesting area on May 30. These may have been the first actual nests found within the continental U.S. Burrowing Owl: Traverse Co., 3 miles NE of Collis, May 18 thru June 8, pair seen at nest burrow by R. Grant. Burrow flooded out by heavy rains and abandoned thereafter. Another pair 7 miles W. of Herman, but in Traverse County, seen repeatedly at nest burrow from May 5 to July 26, by R. Grant. Pellets collected. A Note of Interest will appear in a future issue. Barred Owl: Seen twice in July and 4 times in August, near Ely, St. Louis

Co., Jan Green.

Long-eared Owl: Lake Co., S. Kawishwi River, July 20, 1 seen, Avifaunal Club. Few summer records for this

part of Minnesota.

Short-eared Owl: Traverse Co., Wheaton, June 28, 5 black-faced young sitting in middle of Hwy. 75, blocking traffic. On same day, between Wheaton and Breckenridge, total of 16 adults seen. R. Grant. At Hibbing, St. Louis Co., Harriet Micensky saw adults 5 times in June, twice in July. Dennis Meyer reports one in rural Duluth, St. Louis Co. on June 26.

Whip-poor-will: Mabel Goranson heard one calling near her home in Shotley, Beltrami County, near the south shore of Lower Red Lake in mid-June. She did not record any subsequent to that time. Those that usually nest in the Anoka Sand Prairie just north of Coon Rapids have called into late July, but Avifaunal Club members have been unable to locate them into August.

Common Nighthawk: Lake Co., Fernberg road, near Uncle Jud's Creek. July 24, nest on open rock ledge with 2 downy young, John C. Green. Winona, rooftop nest with 2 eggs on May 26, Henry Fegre. Ramsey Co., June 17, several young flying clumsily about with adults and on July 6, 2 large young in a rooftop nest, gone by July 11, A. C. Rosenwinkel.

Chimney Swift: Ramsey Co., June 23, ad with several flying young, latter giving juvenal call-notes, A. C. Rosenwinkel; Bald Eagle Lake, July 30, nest with young, Elizabeth Campbell.

Ruby-throated Hummingbird: Cook

Co., Tofte, Aug. 10, 2ad, 2 y, feeding on birch sap, R. Grant.

Belted Kingfisher: St. Louis Co., Duluth, June 23, hole in bank, y heard, D. Meyer. Hibbing, July 11, hole in bank, 4 feet deep, y heard, H. Micensky.

Yellow-shafted Flicker: Winona Co., Goodview, June 24, 4y left nest in Cottonwood, Grace Gordon. Winona, July 15, ad, 2y, Grace Dahm. Ramsey Co., Bald Eagle Lake, June, nest with y, Elizabeth Campbell. Lake Co., Moose Lake, July 4, y heard in nest, John C. Green. Fernberg road, July 14, 3 large y, John C. Green, St. Louis Co., Fairbanks, June 16, 1y, 5e, Ruth Kuchta. Duluth, June 22, 6e, Jan Green. Duluth, July 5 y heard in nest, D. Meyer. Duluth, July 15, 1y being fed, A. K. Arndt. Hibbing, June 23, ad entering nest hole, H. Micensky.

Pileated Woodpecker: St. Louis Co., Duluth, June 14, 3y in dead tree, D.

Meyer.

Red-bellied Woodpecker: Ramsey Co., Bald Eagle Lake, pr with 1y at suet feder, Elizabeth Campbell.

Red-headed Woodpecker: Becker Co., Cotton Lake, July 18, 2y out of nest,

D. Meyer.

Yellow-bellied Sapsucker: Lake Co., N. of Two Harbors, June 29, y heard in

nest hole, Jan Green.

Hairy Woodpecker: Ramsey Co., Bald Eagle Lake, July and Aug., 2 y at suet feeder, Elizabeth Campbell. Lake Co., Two Harbors, June 24, 3 large y with ad, Ruth Kuchta.

Downy Woodpecker: Hennepin Co., Minneapolis, May 23, y heard in nest hole, R. Huber. Ramsey Co., Bald Eagle Lake, July and Aug., ad with y at feeder, Elizabeth Campbell. St. Louis Co., Duluth, six nestings noted by D. Meyer.

Black-backed Three-toed Woodpecker: Lake Co., Fernberg road, July 3 and 13, 1 female seen, John C. Green. Wampuss Lake, Aug. 17, 1 female seen, D. Pearson. Hubbard Co., Itasca Park, y left nest on July 5, fide Ben Thoma. Eastern Kingbird: Numerous nestings

reported from Itasca, Becker, Winona, Ramsey, Beltrami, Clay, Lake and St. Louis Counties.

Western Kingbird: Rock Co., Manley, July 27, ad feeding grasshoppers to 4y on fence, Avifaunal Club. Clay Co., Moorhead, July 15, y heard in nest, D. Meyer.

Great Crested Flycatcher: Clearwater Co., Itasca Park, June 1, pr building, R. Grant. Ramsey Co., Bald Eagle Lake, y heard July 6, left nest July 12, Elizabeth Campbell.

Eastern Phoebe: St. Louis Co., French River, June 15, nest with 3 y, Jan Green. Cook Co., Schroeder, June 24,

4 nestlings, Marie Aftreith.

Yellow-bellied Flycatcher: Lake Co., N. of Two Harbors, near Wampuss Lake, Aug. 17, ad feeding 2 y out of nest and near Sand Lake, ad feeding 3 y out of nest, D. Pearson. To the best of my knowledge, the actual nest of this species has not yet been found in Minnesota.

Least Flycatcher: St. Louis Co., Lake Vermilion, June 21, 2 nests, incubating, V. F. Barrows. Carlton Co., Rose Lake, July 4, ad feeding 2 nestlings, A. K. Arndt Lake Co., Fernberg Tower, July 14, ad with 3 y, Jan Green. Twin Lake, July 15, 2 broods 3 y each, one brood of 2y, al out of nests and being fed by parents. Jan Green.

Eastern Wood Pewee: Winona Co., Winona, Aug. 30, 2 ad with 2 y out

of nest, Grace Dahm.

Horned Lark: St. Louis Co., Duluth, Minnesota Point, April 30, 1y barely able to fly, Jan Green.

Tree Swallow: Numerous nestings reported from Beltrami, Ramsey, Lake, St. Louis Counties.

Bank Swallow: Numerous nestings in St. Louis and Dakota Counties.

Barn Swallow: Numerous nesting in Lake, Winona and St. Louis Counties. Cliff Swallow: Beltrami Co., June 11, adults incubating, Mr. and Mrs. John Mathisen. Washington Co., June 28, 21 active nests, A. C. Rosenwinkel. St. Louis Co, Hibbing, June 29 to July 10, 71 nests in 3 localities, 8 banded, Harrick Miconelly.

riet Micensky.

Purple Martin: Hennepin Co., Minneapolis, 3 pr in house, R. B. Janssen. Ramsey Co., Bald Eagle Lake, several houses in use, Elizabeth Campbell. Winona Co., Winona, 17 pr brought off 48y, gone by July 29, Ted Glubka. 20 pr brought off 10y, mid-July, the Sanford Tylers. 4 pr brought off 5y, mid-July, Mrs. George Collins. 12 pr brought off 15y, early July, John Reinhard. Homer, 16 pr brought off 15-20y,

early July, Eunice Rihs. Stockton, June 9, 1 male, 8 females, but no nesting

took place, K. Lipsohn.

Gray Jay: Itasca Co., near Marcell, April 11, ad incubating 2 eggs, nest in Black Spruce. See Notes of Interest in previous issue (Flicker 35:68, June 1963), John Mathisen. Beltrami Co., Waskish, June 29, 2ad feeding 1 large dark y in Black Spruce-White Cedar swamp, Avifaunal Club.

Blue Jay: Numerous nestings reported from St. Louis, Ramsey, Cass and Win-

ona Counties.

Common Crow: St. Louis Co., Duluth,

June 17, ad with 4 y, D. Meyer.

Black-capped Chickadee: Numerous nestings reported from Dakota, Ramsey, Beltrami, St. Louis and Cook Counties.

Boreal Chickadee: Lake Co., S. Kawishiwi River, Endless Waters Road, June 17, pair nesting about six inches from top of dead, 9 foot snag in open bog. Hole faced east, contents not noted. Robert Stein, Cornell Laboratory of Ornithology.

Tufted Titmouse: Ramsey Co., Bald Eagle Lake, June 12, ad with 5 y at feeder. Remained until at least Aug.

29. Elizabeth Campbell.

Red-breasted Nuthatch: St. Louis Co., Duluth, along Lester River, May 19, 2 ad entering and leaving hole in dead, 20 foot aspen trunk. On May 24, no activity noted. Avifaunal Club.

House Wren: Numerous nests in St. Louis, Beltrami, Wadena, Ramsey and

Winona Counties.

Catbird: Ramsey Co., June 10-13, 2 broods, 2, 3y, A. C. Rosenwinkel; Bald Eagle Lake, 2 nests, y left one of these on June 20, E. Campbell. Houston Co., Reno, May 26, pr building, Avifaunal Club. Lake Co., Two Harbors, June 17, 4 eggs, Ruth Kuchta. St. Louis Co., Duluth, June 23, 4 eggs, D. Meyer. Duluth July 810. ad with 3y out of nest, A. K. Arndt. Hibbing, Aug. 2 nestlings banded, Mrs. Oscar McCracken.

Brown Thrasher: St. Louis Co., Duluth, 1 y, D. Meyer. Beltrami Co., Shotley, July 1, 2 nests, 1 incubating, other with June 2, 3y hatched from 4 eggs, Mabel Goranson. Ramsey Co., June 7, 3y out of nest, A. C. Rosenwinkel; Bald Eagle Lake, late May, 4 nestlings, E. Campbell. Winona Co., Winona, late June, ad

with 2y, Leon Knopp, Goodview, July 2, 4y newly hatched, left nest July 12, Grace Gordon.

Robin: Numerous nestings reported from St. Louis, Winona, Hennepin, Ramsey, Sibley and Cass Counties.

Veery: Clearwater Co., Itasca Park, June 1, pair building, R. Grant. St. Louis Co., Lake Vermilion, June 21, 4 nests; 1 empty, 1 unexamined for contents, 1 with 2 eggs, 1 with 3 eggs,

V. F. Barrows.

Eastern Bluebird: Becker Co., Cotton Lake, July 18, female carrying food, D. Meyer. Clay Co., Ulen, July 21, y heard in hollow stump, D. Meyer. Winona Co., Winona, 1 pair nesting but in late June a dead "black snake" electrocuted on cattle fence was found at base of nest-hole post Stomach contained 4y Bluebirds, Leon Knopp. Beltrami Co., Shotley, Mabel Goranson gives this history of one nest; June 10, 4 eggs, June 18, destroyed by Tree Swallows, June 27, second nest completed, June 29, 1 egg, June 30, 3 eggs, July 30, 4y left nest.

Ruby-crowned Kinglet: Seldom reported in summer, probably due to lack of observers. Reported in June from Duluth, P. B. Hofslund; Hibbing, Harriet Micensky; Superior National Forest twice, Jan Green. Reported in July twice in the Fernberg area, Jan Green and twice in August, Superior National Forest, Jan Green and Avifaunal

Club.

Sprague's Pipit: Clay Co., between Felton and Ulen, present all summer and presumeably breeding although actual nest not located. Avifaunal Club.

Cedar Waxwing: Dakota Co., July 10, incubating, A. C. Rosenwinkel. Houston Co., Caledonia, no date, 2 ad, 6 y, Grace Dahm. Beltrami Co., Shotley, June 29, 5 eggs, July 30 eggs gone, nest destroyed by squirrel, Mabel Goranson. Lake Co., Tofte, July 10, ad, 1y out of nest, William L. Griffin. Cook Co., Schroeder, July 19, building, July 23 2 eggs, July 25 nest and eggs gone, M. Aftreith. St. Louis Co., Fish Lake, July 30, 3 nestlings, D. Meyer. Duluth, July 10, 1y out of nest, A K. Arndt. Duluth June 24-July 3, 3 nests being built in Elm, Maple, White Pine, D. Meyer. Parkville, June 30, nest in Boxelder, contents not noted, Mrs. S. N. Erickson. Parkville, June 24, building in lilac bush, June 28 1 egg, June 29 2 eggs, June 30 3 eggs, July 1 incubation began, July 5 4th egg confirmed, July 14 4 nestlings, Mrs. S. N. Erickson.

Bell's Vireo: Houston Co., Reno, one pair present all summer and presumeably breeding although actual nest not found, Avifaunal Club. Wabasha Co., Dorer Pools, June 8, one male singing, R. B. Janssen.

Yellow-throated Vireo: Clay Co., Ulen park, June 15 thru Aug. 10, pair presumeably breeding but neither nest nor young located, Avifaunal Club.

Red-eyed Vireo: St. Louis Co., Lake Vermilion, June 21, 2 nests found, 1 with 3 eggs the other with 1 y and 1 egg, V. F. Barrows.Duluth , June 24, pair building, D. Meyer. Lake Co., Fernberg Tower, July 14, 1 y out of nest, Jan Green. Moose Lake, July 26. y heard being fed, Jan Green.

Philadelphia Vireo: Lake Co., N. Kawishiwi River, July 7, 1 ad carrying food,

Jan Green.

Tennessee Warbler: Lake Co., S. Kawishiwi River, July 20, ad feeding 2y out of nest, Avifaunal Club.

Parula Warbler: Clearwater Co., Itasca Park, June 1, 4 singing males, R. Grant. Lake Co., Twin Lake, July 15, ad male feeding 2y, Jan Green.

Yellow Warbler: Numerous nestings reported from Ramsey, Winona, Clay

and St. Louis Counties.

Magnolia Warbler: Lake Co., Twin Lake, July 15, male feeding 2y out of nest, Jan Green.

Black-throated Green Warbler: Lake Co., S. Kawishiwi River, July 20, ad feeding at least 1 y out of nest, Avifaunal Club.

Cerulean Warbler: Goodhue Co., Vasa, Aug. 10, pair with 3y out of nest, D. Pearson.

Chestnut-sided Warbler: St. Louis Co., Fish Lake, July 30, ad with 2 y, D. Meyer.

Bay-breasted Warbler: Lake Co. Basswood Lake, July 2, nest with 4 eggs, Barbara Cavender. Photos taken, appears to be first Minnesota nesting record.

Pine Warbler: Lake Co., July 15, ad feeding 3 y out of nest, Jan Green.

Ovenbird: Ramsey Co., May 12, building, A. C. Rosenwinkel.

Connecticut Warbler: June 8, Duluth, 1 female, Jan Green; June 1-3, Hibbing, Harriet Micensky; June 17-18, 4 areas in Superior National Forest north of Two Harbors, Robert Stein; four other reports during June in the Fernberg area, Lake County, Jan Green and Avifaunal Club.

Yellowthroat: Ramsey Co., May 30, female incubating 3 eggs, A. C. Rosenwinkel. St. Louis Co, Duluth, June 23,

5 eggs, D Meyer.

Yellow-breasted Chat: Houston Co., Reno, June 8, 1 singing adult seen, Avifaunal Club. Presumeably breeding, although actual nest or young not found. Wabasha Co., Dorer Pools, June 8, 1 singing, R. B. Janssen.

Bobolink: Clay Co, Moorhead, July 17, both sexes carrying food, D. Meyer.

Western Meadowlark: Winona Co., Goodview, July 2, 2 y out of nest, Grace Gordon.

Yellow-headed Blackbird: Ramsey Co., June 1, ad feeding nestlings, A. C. Rosenwinkel.

Red-winged Blackbird: Numerous nestings reported from Clay, Ramsey, Winona, St. Louis and Lake Counties.

Orchard Oriole: Houston, Co., Reno, May 26, pair building, Avifaunal Club. Baltimore Oriole: Numerous nestings reported from Winona, Ramsey, Houston and St. Louis Counties.

Brewer's Blackbird: St. Louis Co., Duluth, June 17, 6 nestlings and 2 other broods with 2 y each, out of nest, D.

Meyer.

Common Grackle: Numerous nestings reported from Winona, Ramsev, Traverse, Lake and St. Louis Counties.

Brown-headed Cowbird: St. Louis Co., Duluth, Aug. 9, 2 y being fed by Song Sparrow D. Meyer. See Chipping Sparrow.

Scarlet Tanager: Ramsey Co., May 17, 3 nestlings, A. C. Rosenwinkel.

Summer Tanager: Winona Co., Homer, June 14, 1 ad seen for about 7 minutes, working its way along the hillside, Alton Shira. Very few Minnesota records for this species.

Cardinal: Winona Co., Winona, July 24, 2 y, Ted Glubka. Sibley Co., near Belle Plaine, May 11, 1 y just out of nest, banded, R. Huber. Ramsey Co., Bald Eagle Lake, July 1, 3 y at feeder; 2nd brood left nest on Aug. 16, Eliza-

beth Campbell.

Blue Grosbak: Rock Co., south of Manley, on South Dakota border, July 27, six observed, behaving as if young in vicinity, Avifaunal Club; on Aug. 3, again observed, pair with young, plus several other individuals, Avifaunal Club. Note of Interest will appear in future issue.

Rose-breasted Grosbeak: Winona Co., Goodview, July 15, 4 nestlings, Grace Gordon. Ramsey Co., Bald Eagle Lake, June, 3 nestlings, Elizabeth Campbell. St. Louis Co., Duluth, June 28, 3 eggs, D. Meyer. Duluth, July 9, 4 y out of nest, A K. Ardnt Fish Lake, July 30, ad feeding 2 y out of nest, D. Meyer. Dickcissel: Lac Qui Parle Co., Salt Lake, July 27, ad feeding 1 y out of

nest, Avifaunal Club.

Evening Grosbeak: Cass Co., Cass Lake, Aug. 19, female feeding y in yard, Mrs. John Mathisen. Beltrami Co,. Shotley, 1 ad at feeder June 30 and again Aug. 13, Mabel Goranson. St Louis Co., Duluth, A. K. Arndt reports, "On the 9th and 10th (July) a y male and a y female were being fed by adults - thru the 15th we saw one both each day. It was fun discovering you could definitely identify the sexfemale is like the adult female but male has adult male wing markings but an all-over yellow head - the blackish head with yellow brow-line not there. 1 y male being fed on 17th, female on 20th. On July 26, she saw 2 y being fed. She also gives this account of y being fed during Aug: Aug. 1, 2 y, Aug. 2 1 y male, Aug. 5, 4 y, Aug. 6, 3y, Aug. 8, 1 y, Aug. 10, 1 y male. Gordon W. Gullion noted 2 broods at a feeder in Cloquet during early Aug. Mrs. Putnam of Duluth reports ad with y at feeder on July 4 and 2 pair with several y on July 13. There can be little question now that this species breeds in our state, but to the best of mv knowledge, the actual nest and eggs have not as yet been found.

Purple Finch: St. Louis Co., Parkville, July 1, ad feeding 3 y, Mrs. S. N. Erickson.

Pine Siskin: St. Louis Co., Duluth, June 20, 1 y being fed by parents at feeder and again on June 27. Also 7 dates from Aug. 7-Aug. 22 when 1 y

being fed, A. K. Arndt.

American Goldfinch: Reported nesting in Ramsey, Hennepin, St. Louis and Winona Counties.

Red Crossbill: Anoka Co., Bunker Lake area, July 10, flock of 17, R. B. Janssen. Clay Co., Moorhead, July 15, 3 seen, D. Meyer St Louis Co., Duluth, July 10-29, flocks of 3 to 40 seen by D. Meyer, P. B. Hofslund, except on July 14, when 84 seen by D Meyer. Although there are numerous summer records for this species in Minnesota, there are only one or two instances where actual breeding was suggested. The actual nest with eggs, to the best of my knowledge, has not yet been found in our state.

Savannah Sparrow: Clay Co., near Felton, June 15, 5 eggs, R. Huber. St. Louis Co., Duluth, June 14, 3 nestlings,

D Meyer.

Grasshopper Sparrow: St. Louis Co., near Toimi, June 29, 2 seen and heard, Jan Green Very few reports from the northeastern part of our state.

Le Conte's Sparrow: Present all summer on Becker-Mahnomen Co. line south of Waubun. Known to breed in area but no actual nests or y were observed this year, Avifaunal Club, R. Grant.

Henslow's Sparrow: Present all summer on alfalfa-covered hills outside Winona. Known to breed in area but no actual nests or y were observed this year, Avifaunal Club.

Sharp-tailed Sparrow: Same as for Le Conte's Sparrow, except in fewer num-

bers, Avifaunal Club.

Lark Sparrow: Scott Co., near Savage, Aug. 1, 2 ad with 5 y out of nest, Avifaunal Club.

Slate-colored Junco: Beltrami Co., south of Waskish, June 29, 2 ad with several flying y, Avifaunal Club.

Chipping Sparrow: Numerous nestings reported from Ramsey, Washington, Becker, Clay, Lake and St. Louis Counties. On June 28, Duluth 1 ad feeding large y Cowbird, D. Meyer.

Clay-colored Sparrow: St. Louis Co., Hibbing, June 15, 2 nestlings, Mrs. Oscar McCracken.

White-throated Sparrow: St. Louis, Co. Duluth, June 21-27, 1 y out of nest, being fed, A. K. Arndt .Duluth, July 29, nest with 1 egg, 1 y, D. Meyer. Hib-

bing, July 11, nest in Blueberry bushes, 4 eggs, Harriet Micensky

Lincoln's Sparrow: Beltrami Co., Waskish, June 29, several small sparrows flitting nervously about from Black Spruce-White Cedar swamp to roadside ditch with weeds. One clearly seen was adult Lincoln's with gray face, buffy breast band and necklace streakings. Other may have been flying juvenals? Avifaunal Club. Would seem to be an ideal spot for breeding although no breeding evidence has been presented in recent years. Several adults were seen in Lake Co., near S. Kawishiwi River on July 20 but these were intermingled with numerous other passerine species and were evidently early migrants, Avifaunal Club. Song Sparrow: St. Louis Co., Duluth, 7 nestings, 2 of which had 2 y each, 1 with 2 eggs, rest with 2 y each, June 23-Aug. 18, D. Meyer. Duluth, Aug. 2-18, 1 y fed by ad, A. K. Arndt. Hibbing. May 25, 5 eggs, Harriet Micensky; June 26, ad feed 2 y out of nest, (different nesting) Harriet Micensky.

Chestnut-collared Longspur: Clay Co., between Felton and Ulen, present all summer and known to breed in area, but actual nest not found this year, Avifaunal Club, and R. Grant.

#### SUMMARY:

Excellent response from numerous points around the state made this one of the best breeding reports I have assembled during my short tenure. 124 species were reported as breeding with another 34 species observed as summer residents (probably breeding) for a total of 158 species covered in this report. The Bay-brested Warbler nest appears to be the very first for our state The Hawk-Owls reported in the Kelsey area by Strnad may have constituted a family group, if so, this would also be a "first" for Minnesota. Other species reported that have shown very little if any breeding evidence until now were the Yellow-bellied Flycatcher (less than 5 records?), Tennessee Warbler (3 records ?), Philadelphia Vireo (2 records?), Evening Grosbeak (4 records?) and Pine Siskin (2 records?). The Burrowing Owls by R. Grant were of special interest and the Barn Owls near Truman appear to be the second nesting record of that

species for Minnesota. The Yellow-crowned Night Heron and Tufted Titmouse continue their northward movement in our state. This northward movement might prove interesting in the vicinity of Cambridge, in a pseudo-Carolinian area along the Rum River, where the Prothonotary Warblers once nested. The Blue Grosbeak was re-

ported for the second time in Minnesota and the Summer Tanager has been reported, to my knowledge, less than five times. All in all, an extremely interesting summer. Let us look forward to continued high levels of response from observers during the coming breeding seasons.—3121 Georgia Ave. So., Minneapolis 26, Minnesota

# Unusual Waterfowl Observed in Southwestern Minnesota

by Glen Smart

On May 3, 1962, Delmar Brachsus, an employee of the Round Lake Waterfowl Station observed a single male Cinnamon Teal on a small marsh five miles south of Worthington, Minnesota in Nobles County. This bird was in the company of several Blue-winged Teal. A male Cinnamon Teal, apparently the same bird, was observed daily for the next nine days on this same marsh. Subsequent identification was made by Mr. Kenneth L. Sather, John Sather, and myself. The bird was observed with eight power binoculars from a distance of less than thirty yards. It was a male in full nuptial plumage and did not appear to be paired with any of the other teal present.

On November 18, 1962 a single Ross Goose was noted in a flock of newly arrived Snow and Blue Geese. These birds alighted inside the pens of our Waterfowl Station where a large number of pinioned geese of various species were kept. After a few hours, the geese became accustomed to people and vehicles which were constantly present and allowed rather close observation. The Ross Goose was considerably smaller than the Snow Geese and it was quite easy to see the "warty protruberances" and the short bill which characterizes the species. Several of these tiny west coast birds had been seen at the Sand Lake National Refuge near Columbia, South Dakota earlier in the fall and it is assumed that this bird was one of those. The geese made themselves "at home" with their captive cousins and were present inside the enclosures for two weeks. They made daily trips to surrounding fields for grain and green vegetation but always came back to the enclosures. Although several of the Snow Geese were killed by hunters, the Ross Goose was not harmed and on December 2, 1962, the remaining Snow and Blue Geese along with the Ross Geese arose, circled the pens twice and flew in a southerly direction.

Ross Geese are seen quite regularly at the Sand Lake refuge during the autumn migration. Two recent publications (G. Smart, Wilson Bulletin, 72:288-289. and C. D. MacInnes and G. Cooch. 1963. Auk 80:77-79.) seem to indicate that the Ross Goose is making an eastward extension of its range.

During the same period that the Ross Goose was present, an immature White-winged Scoter was observed on Round Lake in western Jackson County, Minnesota. This bird was observed daily and was noted to be feeding on the various fauna of the lake. It was seen surfacing with large frogs,

small fishes, and other unidentifiable material that could have been either plant or animal. It fed in the company of other waterfowl but stayed behind when the other birds left the area. During the entire length of its stay, November 20, to December 2, it was always present in the same bay.

A second record of White-winged Scoter on Round Lake should be noted also. During the waterfowl hunting season of 1961 an adult male White-winged Scoter was shot by Mr. John Sather. This specimen was sent to the Minnesota Museum of Natural History for inclusion in their collection.

An unusually large migration of White-fronted Geese was noted in western Jackson County during the autumn of 1962. According to residents of the

area, this species is rather unusual and is cause for comment when seen. Approximately 300 of these birds were present during the early autumn. They remained for 3-4 weeks although exact arrival and departure dates were not recorded. These birds remained very wary and always fed apart from the other geese present. To my knowledge, none were taken by hunters although several Canada Geese, Blue, and Snow Geese were taken during the period when the White-fronts were present. Round Lake Waterfowl Station, Round Lake, Minnesota.

Editors Note: The record for the Ross Goose is the first authentic record for this species in Minnesota. This brings the total state list to 353 species, including regulars, casuals, accidentals and extinct species.

### THE CANADIAN LAKEHEAD

by A. E. Allin

In the June Flicker, we noted that May was cold with a mean temperature of only 45.7° and that a snowfall on May 21 was the latest recorded in 20 years. The total rainfall was below normal. As the leaves were just opening early in June and the countryside was white with the bloom of fruitbearing shrubs and trees, we theorized that the fruit crop would be heavy. For some reason however the crop is generally light. No killing frosts were reported at the Lakehead after May 25 but possibly this was not true in the outlying areas. There was a fairly good setting of fruit on the Mountain Ash in the Lakehead Cities. This tree seems to be the main attraction for wintering Pine Grosbeaks and Bohemian Waxwings. A very heavy crop of cones on the Jackpines may attract crossbills to the area.

The weather for June approached the average with a mean temperature of 57.0°. The rainfall of 4.25" was above normal. Most of this fell be-

tween June 9 and 19. Rivers and streams were very high. Kakabeka Falls was spectacular. Fields were flooded and we suspect that myriads of ground-nesting birds were flooded out. July was a warm month with a mean temperature of 64.7°. Precipatation was much below normal and by the end of the month streams were very low. Although 1.32" of rain fell on August 3, the total precipitation for the month scarcely exceeded the average. The mean temperature of 61° was one degree below normal.

Dry fields combined with a relatively high Lake Superior resulted in few suitable areas for returning shore-birds. Migration of other birds has not yet commenced in numbers except for Common Nighthawks, although there was an obvious shifting of the warbler population in late July. The outstanding observations of the summer season were the first sighting locally of the Least Bittern on June 10, the presence of a Buff-breasted Sandpiper

on August 25, and the discovery of a breeding colony of **Ring-billed Gulls** in July. The details of these observations will be discussed in their respective sections below.

Loons and Grebes: As pointed out above, extensive rains flooded out low areas and raised the water level in lakes and rivers. This may explain the few young Common Loons seen this season. None was observed in many lakes where they have bred for many years. Unfortunately we were unable to visit the Whitefish Lake marsh where the Red-necked Grebe has bred for at least three decades.

Cormorants, Herons and Bitterns: The Muries again reported about 20 pairs of Double-crested Cormorants nesting on Cone Island in Thunder Bay. On June 10, we were informed a small bird had been perched all day in a spruce tree in Fort Williams. It was still there in late afternoon when I visited the area and proved to be a Least Bittern. There is one recorded for Sault Ste. Marie, Ontario but this local record may be the only other observation of this species north of Lake Superior.

Swans, Geese and Ducks: Forty-four Whistling Swans were seen at Cloud Bay in late May. Four of these were still present along this area of Lake Superior throughout June. H. Karila reported seven at Whitefish Lake on June 7. Ducks probably nested later than usual or there were more second nestings, probably due to flooded nests. A brood of 10 newly-hatched Blue-winged Teal was seen at the Empire Elevator on July 18. A brood of six small Pintails was seen on July 24, and in the same area on August 2 we saw broods of eight Mallards and five Red-breasted Mergansers. Relatively few loafing ducks were present along the waterfront, now a reserve, in July but possibly 2000 had collected by mid-August. These were principally Black Ducks, Mallards, Blue-winged Teal, and Pintails, with numbers of Common Goldeneyes. However Greenwinged Teal were seen on August 17 and August 31. An American Widgeon was seen on August 17. Neither of these species has been found breeding locally but we suspect they may occasionally nest in the area.

Vultures, Eagles and Hawks: Mrs. Peruniak reports Turkey Vultures present at Atikokan where they regularly occur in small numbers. Bald Eagle nests were reported at Wikwabinonaw, Sunbeam, and Marmion Lakes. Adults were present but we do not know whether young were successfully raised. The only hawk commonly seen has been the Sparrow Hawk. We failed to find the Pigeon Hawk nesting in Fort William but a young one, perched in a White Birch outside our home on August 17, was alarming a flock of Pine Siskins.

Grouse to Coot: More reports of Ruffed Grouse with their broods have been received than has been the case for several years. However no reports have been received of Spruce Grouse, Sharp-tailed Grouse, Gray Partridge or pheasants. Nor have we had reports of rails or American Coots.

Shore-birds: Due to dry fields on the one hand, and the relatively high level Superior, conditions have Lake been unfavorable for shore-birds. On August 7, we saw a small flock of Killdeer; on the same date, at Dorion C. E. Garton reported shore-birds in numbers, including Baird's, Pectoral, and White-rumped Sandpipers. We saw 11 White-rumped Sandpipers, Killdeer, and Lesser Yellowlegs on August 10. On August 25, boys killed a Buffbreasted Sandpiper with a stick, near Dorion. We have only seen this bird on two occasions and both times they were readily approached. We have two records of this species locally in mid-September and David Allin showed me a small flock on August 13, 1952. A Black-bellied Plover seen on June 8 was a late spring migrant.

Gulls and Terns: Herring Gulls are still a problem at the local airport, where they rest on the runways. Several planes have been damaged when they collided with these large birds. The gulls frequent a near-by garbage disposal area. This will shortly be closed down and garbage incinerated. It will be interesting to observe the subsequent behavior of the gulls. It

is possible Ring-billed Gulls may become a problem in the future as they frequently feed on open fields. They have become much commoner in recent years. C. E. Garton and R. Robb found a breeding colony in July on Granite Island, Black Bay. This is the first known instance of the Ring-billed Gull breeding locally, although a few immature birds have been seen in late summer. We saw three Bonaparte's Gulls in the local harbor on August 31.

Doves to Kingfishers: Mourning Doves have been seen on several occasions but were less common than in 1962. Cuckoos were very scarce. Mrs. Peruniak reported a Yellow-billed Cuckoo was seen by the Dyers at Atikokan carrying Usnea. Whip-poorwills were heard in June near Loch Lomond ski lodge. It is many years since this species has been recorded along The Norwesters, although it regularly occurs in one area of nearby Scoble Township. Common Nighthawks were seen over the city until August 21; that evening a small flight passed over Rosslyn Village. We heard our last Chimney Swifts on August 21.

Woodpeckers, Flycatchers, Larks and Swallows: A Red-headed Woodpecker was seen at Pine Bay on June 15. Olive-sided Flycatchers seemed commoner than usual. K. Denis heard the typical call of this species on August 25. The Eastern Kingbird was very common on August 18 but has been scarce subsequently. The Cliff Swallow was again found breeding in Lybster Township. On September 1, we saw a young Cliff Swallow attended by an adult in Conmee.

Jays to Wrens: The Gray Jay seems quite scarce. Fewer Common Crows have been seen than in previous years. Common Ravens nested on the gussets of a bridge over the Gull River, 130 miles west of Fort William. The nest with young could been seen when one looked between the ties some 20 feet above the nest. A family of Common Ravens was seen at Sturgeon Bay in mid-June and we saw four, probably a family group, at Sitch Lake on July 17. Three had assumed their winter territory near the Empire Elevator by

August 2. The House Wren, like the Eastern Phoebe, does not seem to have yet regained its former abundance. T. Perrons found a nest of the Redbreasted Nuthatch in June at Shebandowan.

Mimids and Thrushes: Mockingbirds were seen on three occasions—on May 18 in Fort William, on May 23 at Shebandowan, and on June 15 at Pine Bay. Only one pair of Cathirds was reported but Brown Thrashers were seen on at least three occasions including a pair in Neebing Township on June 18. Robins have been very abundant. Young left the nest in mid-May. Many young were out of the nests the first week of June and again in early July. It was surprising to see more in early August. Adults were still feeding young on August 21. At daybreak on June 27, a Common Crow calmly ate an almost full-fledged Robin in a nest outside my bedroom window. A well directed slipper finally drove it away but the remaining young then jumped or fell from the nest to the ground and all but one were killed. Eastern Bluebirds were again uncommon. We saw them on only three occasions including 3 young on August 26.

Kinglets to Starlings: Cedar Waxwings were very common when they arrived in late May and have been abundant throughout the summer. Young Starlings were first seen flying on June 4. Starlings were present in flocks on June 23.

Vireos and Warblers: A pair of American Redstarts nested in shrubbery at the Sanatorium. On July 24, Nashville Warblers were seen in Fort William. A Black-throated Blue was seen there on July 27 and unindentified warblers were seen moving restlessly on the same day. These were the first fall movements noted. Until the end of August only the occasional warbler was seen moving through the White Birch trees lining our streets.

Bobolinks to Tanagers: Bobolinks again returned to their few local breeding grounds. Apparently there was a small flight of Baltimore Orioles into the Sibley Peninsula on May 24. It was seen on two occasions in June. Ordinarily we are fortunate if we see

one Baltimore Oriole in a season. Brewer's Blackbirds returned to at least two areas; many young were feeding on Fort William lawns on August 7. Small flocks of Common Grackles moved through the Lakehead on August 29. The occasional Scarlet Tanager is seen in late May and rarely it has been seen in mid-summer. At least seven were reported last May. A male was seen on the new road leading to Northern Light Lake on June 29. On June 30, the Allins saw a male, and later a female, on the same road but not in the same area. These records were west of Whitefish Lake.

Fringillidae: Small numbers of Pine Siskins fed on the seeds of the White Birch on August 17. They were present in immense numbers on August 21; the majority were immature birds. Mrs. Knowles reported Red Crossbills feeding on her Sunflowers, still in the milk stage, on August 28. Song Sparrows have been very abundant. The spring migration of Slate-colored Juncos was very poor. A few returned to Mrs. Knowles' feeders in early August.

Other nature observations during the past summer were not spectacular. A Pink Salmon was taken at the mouth of the MacKenzie River east of Port Arthur on May 27. This was a descendant of those introduced into Thunder Bay in the spring of 1956. Since the "humpback" has a two-year cycle it is anticipated that more of these exotics will be taken this fall when they run local streams to spawn in late September. A large Goldfish was taken during a run of Common Suckers near the mouth of a small stream east of Port Arthur on May 28. We trust this species will not become acclimatized to the cold waters of Lake Superior. It is now a common inhibitant of the warm waters of Lake Erie.

The Monarch Butterfly is ordinarily an occasional summer visitor since its principal food supply, the Common Milkweed, does not occur locally. (A few years ago, a resident successfully introduced it near Shebandowan. That summer Monarch Butterflies bred successfully on these weeds but we do

not know whether the colony of Milkweed persists). This year the Monarch Butterfly was very common in early June. I saw a dozen on June 1 and 2, and several on June 15. Other observers reported their presence in other parts of Northwestern Ontario during that month. They were still present on June 30.

The Snapping Turtle occurs in very small numbers in Thunder Bay District. We have found only one specimen in the past 25 years and one or two have been brought in for identification. On July 17, we found one about 10" long in a small slough off the Trans Canada Highway some 70 miles west of Fort William. On August 7, we were shown one taken at Round Lake, west of Whitefish Lake measuring 18" in length. P. Nunan. Conservation Officer, informs us several very large ones have been taken in that area. The only other turtle occurring in this region is Bell's Painted Turtle which is present in many of the local sloughs and marshy lakes.

As usual we could not be in the field studying birds without observing the flora. The most interesting find was a colony of the Baked-apple Berry discovered near Pine Bay on June 15. In mid-August we found a western plant, Rosin-weed, growing in Fort William. The white form of the Great Fireweed was found on three occasions. As in previous years, the Orchid family received more than casual attention. At least 18 species were identified. Among the more beautiful, but not necessarily the most interesting, were the Moccasin Flower, Showy and Yellow Lady's Slippers, the Lesser Butterfly Orchid and Romanzoff's Ladies' Tresses. In floating bogs, Rose Pogonia, Calopogon and Arethusa were studied with difficulty. We failed to find the rare Bog Malaxis where the Park Naturalist rediscovered it a year ago. However C. E. Garton and M. Bartman found a single specimen in another Sibley Park bog.-A. E. Allin, Regional Laboratory, Ontario Department of Health, Fort William, Ontario.

### NOTES OF INTEREST

ALBINO CROWS—Mr. Wayne Wetterlind and Robert Levasseur of Centerville reported that on about July 20, 1963 they shot two albino Common Crows, in Columbus Township, Anoka County from a group of 6, the other 4 being normally colored. They turned these over to Mr. H. A. Cecchi, a taxidermist, in St. Paul for mounting. I stopped in and examined them at Mr. Cecchi's shop on Cromwell Avenue. The two birds appeared identical and were almost fully grown birds in a very interesting partially albino plumage. The birds were largely white with the faintest tinge of brownish. The terminal portions of the primary wing feathers were black as was the tuff of bristles covering the nostrils. A small part of the face surrounding the bill was black grading into the white head. The bill itself was very light with the terminal third black. Irregular patches near the tail tip were dark brown. The legs were very pale and the eyes were dark. I was immediately impressed with the similarity of the plumage pattern to that of a Siamese Cat. W.J. Breckenridge, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.

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BIRDS FEEDING ON ELM LEAF MINERS—On June 14, 1963 I first noticed an unusual number of birds apparently feeding on something on the hard gravel-surfaced driveway at my home in Brooklyn Park, Hennepin County, Minnesota. This continued for several days and my curiosity was aroused. On careful examination of the driveway surface I noticed numerous tiny maggot-like larvae not more than ¼ inch long squirming about. These were found beneath a large Slippery Elm. I then recalled having examined both this species and the American Elm for extensive leaf damage and found an abundance of tiny leaf-mining larvae feeding on the green portions of the leaves leaving the upper and lower leaf surfaces intact and causing the leaves to turn brown and curl up. These larvae were completing their growth at this time and were emerging and dropping to the ground where they would normally borrow into the soil for pupation. Larvae were collected from the driveway and compared with those still in the leaves and the two were found to be identical. Drs. F. W. Stehr and Edwin Cook of the University of Minnesota Department of Entomology tentatively identified these as the Elm Leaf Miner, a sawfly (Order Hymenoptera) a European pest first found in New England and now gradually moving westward. Nearly 80% of the leaves on some of my Slippery Elms were destroyed.

The birds most numerous in feeding on these larvae were Robins, Starlings, House Sparrows, Common Grackles and Chipping Sparrows in about that order of abundance. This is just another case where definite classification of birds as "beneficial or harmful" is difficult. W. J. Breckenridge, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.

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SNOWY EGRET AT SWAN LAKE, NICOLLET COUNTY—Roberts (1932) lists two rather doubtful occurrences for this species in Minnesota. Even prior to the onslaught of plume-hunters, this bird was probably never more than just a straggler in our state. The first reliable record was a sight recorded by William Longley at, or near, Walnut Lake, Faribault County on August 28, 1950. (Flicker 22(4):130, Dec. 1950). The bird was an adult and a good description was given. On September 1, 1951, another was seen at the interstate bridge on Lake Traverse, Traverse County by Oscar Enstrom and Jack Brandon (Flicker 24(2):86, June 1952). Again the bird was an adult and a

good description was given. On May 5, 1955, a Snowy Egret was seen in a drainage ditch near Worthington, Nobles County, by Carl M. Johnson (Flicker 28(2):14, June 1956). This appeared in the Seasonal Report column so no details were given. Mr. Johnson, however, is a bander and an excellent observer.

On June 8, 1963 Bill Pieper, Del Dorn and I stopped at Swan Lake, Nicollet County, a spot well-known to most Minnesota birders. We stopped along the north edge of the easternmost projection of the lake. While scanning the water and shoreline with 8 x 30 binoculars, I saw the head and neck of an egret in the tall grasses along the near shore. The beak was black and quite slender for a heron or egret beak and numerous erectile plumes were obvious on the top and back of the head. The light was excellent (about four in the afternoon and clear, but windy) and the bird was about 150 feet away. Just as I called the bird to Bill's attention, a Red-winged Blackbird began diving and pecking at the egret's head, apparently trying to drive it away from a nearby nest. The egret calmly ducked a few times, but the persistence of the Red-wing finally flushed the egret and the yellow feet were at once obvious. I hadn't realized that they would be so easily seen while the bird was in flight. The first impression was that the bird was wearing "yellow slippers," dangling behind as it flew. The egret disappeared behind some farm buildings. Beyond the farm buildings, we found it again, this time standing on a rock where the yellow feet were again very obvious in contrast with the black legs. It was about the size of the many Black-crowned Night Herons flying over most of the lake, but not so chunky in shape. The general posture on the rock was different from a Common Egret in being less upright and less elongated. In flight, too, it was different, having more rapid wingbeats than a Common Egret. On the rock, it was only about 100 feet away, but as we tried to move closer, it flew again to the spot where we had first seen it.

This time we decided to try and get very close for a colored photograph. It was now perched on a half-submerged, barkless log. As we approached very slowly, it bent forward and put its head and beak underwater, just for a second, as if "looking around" for food underwater. The closer we got, however, the more wary the bird became, and by the time we were within 75 to 100 feet of it, the bird flushed again. This time it did not settle back on the lake, but continued east toward Middle Lake, about a mile away. The yellow feet were conspicious, with binoculars, to a distance that I would estimate at about 900 feet, partially dependent upon background contrast, as the bird flew either above or below the horizon.

Records of this bird from North Dakota, South Dakota and Iowa almost place this bird as casual in Minnesota. Because our observation and the three excellent accounts cited above are all sight records, this species must regrettably remain on the hypothetical list for Minnesota until a specimen can be secured. Ronald L. Huber, 3121 Georgia Avenue South, Minneapolis, Minnesota.

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ADDITIONAL NORTHERN THREE-TOED WOODPECKER RECORDS—Whenever this esoteric species is sighted, it becomes a headline item for Minnsota birdwatchers. Although both species of Three-toed Woodpecker are considered to be quite sedentary, observations during the past decade or so indicate that there occur, on occasion, small, localized movements. This past winter was, from all indications, one of those "invasions." The Seasonal Report in the December issue of the Flicker showed eight reports of the Black-backed Three-toed Woodpecker and one report of the Northern Three-toed. The six-month total

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(mid-Sept. to first weekend in March) was eleven reports of the Black-backed and two reports of the Northern. In most of these instances, the birds were seen one day (or weekend) and gone the next, despite careful and extensive search. This also lends support to the idea that these woodpeckers may have been passing casually through the areas where seen. For some time, I have been curious as to the possibility of different habitat preferences (however subtle) of these two species. For instance, the Black-backed is known to nest in tall Norway Pines on upland areas (Itasca Park Bird Nesting Files) while both species are known to nest in lowland spruce-tamarack swamps (Birds of Minnesota). Perhaps in the latter situations, where both species occur, a different stage of climax is preferred by each species. Unfortunately, current popular literature has little to offer on these points, so I would like to take this opportunity to mention some common plants of areas where these species occurred. Perhaps this will initiate a response from our readers, concerning their observations.

On Dec. 3, 1962, Del Dorn, Bill Litkey and I were going north on Highway 72 from Kelliher to Washkish, Beltrami County, Minnesota. At about 5.3 miles south of Washkish, a female Black-backed Three-toed Woodpecker flew across the road in front of our car and landed on a Black Spruce. It was easily identified against the trunk of the spruce, but we got out for a closer look. As we did so, it few back into the swamp, about three feet above the swamp-floor, and was lost from view. We started to enter the swamp when we heard pecking and saw another woodpecker. It was about 20 feet up on a dying Black Spruce. From our angle of view, on the road-shoulder, we could see immediately that it was a male, and had black and white barring from the shoulder to the rump, along the back. In our noisy excitement, we apparently frightened the bird, for it flew back into the swamp. We followed, but were unable to find it again. The area was a White Cedar-Black Spruce swamp, with many of the trees dead or dying. The causes of this destruction were not ascertained, but perhaps the spruce budworm may have been involved. The primary tree-growth was also host to an extensive crop of lichens. Most trees were six to ten inches in diameter near the base of their trunk. Of those dead, many had fallen. The fallen trees were in many cases moss-covered and decomposing. Secondary tree-growth mostly small Balsams, 3 to 8 feet high. Ground plants were predominantly mosses, probably sphagnum and haircap. Labrador Tea, Leatherleaf and Checkerberry (Aromatic Wintergreen) very common. Swamp bordered on west edge by Speckled Alder.

On Dec. 21, 1962, another Northern Three-toed Woodpecker was seen. This one, a female, was seen at Hibbing, St. Louis Co., by Harriet Micensky. Her excellent account, from a letter dated Feb. 15, is quoted here:

"In response to your letter inquiring about the type of growth in which we found the Northern Ladder-back-The bird was a female, and I was struck by the beautiful gray tinge to its sides. This color was not indicated in either Peterson or Pough. The white stripes on the back were also more gray than white. I have no way of knowing if this is the usual color as this is the one and only bird of this species I've seen. It was comparatively quiet at its work. The Arctic makes a lot more noise including a high chink note every so often that this one did not give. When Mrs. McCracken and I moved up to within ten feet of the Northern, it flew right over our heads giving the normal woodpecker-type cackle. As to the location-it was on the south side of our garden patch about 500 feet behind our house. It was on a small 12-foot Black Spruce when we first saw it. It then moved to another small spruce which we chased it from and it then perched on the trunk of a tall tamarack about 20 feet up. It then went back into the woods about 20 feet and was working on several different trees but they were all Black Spruce and Tamaracks. This was on Dec. 21, 1962 and on the next day

when we had our Christmas count I couldn't find it though I spent several hours looking for it. The ground cover plants in that area include Haircap, Sphagnum and Hypnum mosses; blueberry; Laborador Tea; Bush Honeysuckle; Checkerberry; Bearberry; Arbutus; several varieties of Ground Pine and Ferns. It is the usual cover growing on Spruce-Tamarack swamp edges."

On both occasions when this species was sighted, the birds were seen only once, despite careful searching later, and may therefore have been only transient in the described areas. However, both areas represent the type of area that both Three-toed Woodpeckers breed in and for this reason were examined as to plant-life. I hope this note will encourage other birders to examine carefully those areas where they find either species of Three-toed Woodpecker. Perhaps a local botanist can be encouraged to look over the area and specimens can be taken for identification. Ronald L. Huber, 3121 Georgia Avenue South, Minneapolis 26, Minnesota.

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CANADA GEESE NESTING IN RICE COUNTY—A lone pair of Canada Geese arrived at Wells Lake in Rice County, (about four miles distance west of Faribault, Minnesota) on March 25, 1963. It is apparent that it is this same pair that remained and nested. The exact location of the nest is not known but the three young with the two adults were first seen by a farmer in a lakeshore meadow along the northwest shore of Wells Lake about May 12th and reported to me by Warden Ronald Shager of the Minnesota Conservation Department. The three young were banded on May 27, 1963. This is the first known record of nesting Canada Geese in Rice County. Orwin A. Rustad, 1134 E. Division St., Faribault, Minnesota.

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YELLOW-CROWNED NIGHT HERONS EXPANDING RANGE IN MINNESOTA—This species has been nesting yearly at La Crescent, Houston County, Minnesota, since about 1952. It has occurred occasionally as far west as Brownton, McLeod County and as far north as St. Paul, Ramsey County. These extra-limital excursions are few, however, and any occurrence of the Yellow-crown outside of La Crescent is considered noteworthy.

Avifaunal Club members have often wondered about early spring arrival of this species; does it return at about the same time as the Black-crowned Night Heron? One would suspect so. Brother Theodore recalled having seen the Yellow-crown in April at La Crescent in years gone by. On April 28, 1963 we saw one adult at La Crescent. Mrs. Grace Dahm of Winona had been to the usual nesting spot at La Crescent on the previous weekend (April 20) but had not seen the bird. There is the possibility that she overlooked the heron, but more likely, it arrived after her visit and before ours.

On May 5, 1963 at Pig's Eye Swamp in St. Paul, Ramsey County, two adults were seen and studied closely by Bill Litkey, a cautious and competent observer. Three days later, on May 8, two adults were seen in the T. S. Roberts Sanctuary, near Lake Harriet, in Minneapolis by Bob Janssen and Bill Pieper. This is the first record for Hennepin County. Later the same day, one adult was seen in the same area by Mr. and Mrs. Cruzens and R. Huber.

On May 18, 1963, two adults were again seen in the Pig's Eye area, this time by George Laiuste, a cautious beginner, who is familiar with the species from having seen it with us near La Crescent in previous years. His careful description left no doubt as to the identity. He saw one adult there again on May 28. Because of the pseudo-Carolinian aspects of the Pig's Eye area, the

Yellow-crown should be looked for as breeding there.

On May 30, 1963, one adult was seen along the shore of Swan Lake, Nicollet County by Avifaunal Club members. In the eleven or so years that this species has been known in Minnesota, no single previous year has produced such widespread occurrences of this species. Perhaps this marks the beginnings of northward range extension in Minnesota. Ronald L. Huber, 3121 Georgia Avenue South, Minneapolis, Minnesota.

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OBSERVATIONS OF THE WORM-EATING WARBLER—On May 5 while I was birding in the N.E. corner of Roberts Sanctuary, I saw a strange bird outside the fence. The time was between 10 and 11 a.m.; the temperature was about 80°; the sun was out; and the light was good. The bird was feeding on low bushes one to two feet off the ground. The first thoughts that struck me were: 1. Buffy breast, sides, and parts of the belly; 2. Head, black and white striped; 3. Warbler bill and actions; 4. A plumpy, short bird in appearance. When someone walked along the fence outside the refuge, the bird became alarmed, flew toward me, and landed in a tree about ten feet off the ground. The bird next flew inside and landed about twenty-five feet up in the trees. I followed and lost it. I next was drawn to the area to which it had gone by a strange song or buzz. I then saw the bird again feeding on a low bush. As I was photographing it, the bird flew away. This bird was later verified by others as a Worm-eating Warbler.

On May 8, Charles Wiberg and myself were told that there were two Yellow-crowned Night Herons on the knoll path at T. S. Roberts Sanctuary. We observed one and photographed it. Then our attention was drawn to a warbler which we identified to be another Worm-eating Warbler. It was in an oak about 20-25 feet high, sunlight was fair, and the time about 2:15 p.m. It hopped about in warbler fashion, the warbler-type bill showed plainly, and the color on the breast, sides, and belly was greenish yellow, slightly olive with very little buff showing on the breast. When it tipped its head forward, we could plainly see the black striped head prominently marked. It stayed up in the tree for the half hour it was under observation by us. Donald A. Bolduc, 4211 Blaisdell Avenue South, Minneapolis, Minnesota.

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TWO ADDITIONAL RECORDS OF THE FERRUGINOUS HAWK—On March 24, 1963, Richard Oehlenschlager and I were returning to his home in Wadena County from a two-day northwestern trip. At the White Oak Cemetery, White Oak Township, along highway 64 halfway between Akeley and Chamberlain, Hubbard County, we saw a large hawk circling overhead. We stopped to observe the bird more closely. Although the day was sunny, the bird was at just such an angle and distance from us that the undersides were in shadow. No detail was available, therefore, on the ventral aspect of the bird, but as it banked its wings while wheeling and turning, we saw the dorsal aspect, in excellent light, numerous times. The head was very whitish, the back and scapulars were rufous and the tail was white with a rufous band on the terminal third. Although a Krider's Red-tail might fit this description, the rufous back and scapulars (rather than brown) and the Rough-leg shape led us to identify the bird as a Ferruginous Hawk. Because of the rufous band on the terminal third of the tail, it was probably a third-year bird.

On April 7, 1963, William R. Pieper and I were birding in the Red Lake area. About one mile north of Washkish, Beltrami County, we saw two hawks in an open meadow. One was a typical light-phase Rough-legged

Hawk. The other was larger, had a whitish head, very rufous back and wings, and a pure white, unmarked tail. These observations were made while the hawk was flying away from us and as it lit atop a utility pole. It remained there several minutes while we studied it, and then finally flew away, across the bog. Again, we did not get a chance to observe the underparts or the characteristic rufous legs. The Rough-leg shape and rufous dorsal color led us to identify the buteo as a Ferruginous Hawk. Mr. Pieper has seen several typical adults in western Minnesota in recent years, and he was satisfield that the general appearance of this individual was comparable to those. The pure white tail of this individual indicated that it was probably a fourth-year bird.—Ronald L. Huber, 3121 Georgia Ave. So., Minneapolis 26, Minnesota.

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BROWN THRASHER FEEDING ON A MAMMAL—(1963) A family of Brown Thrashers have been feeding in our yard all summer. One day I noticed one of them with what appeared to be a very large insect in its beak. I got the binoculars for a better look and saw that the prey was a small mammal. It had gray fur, but I could not tell what its species was. The bird flew off into the woods with the animal still firmly held in its beak, so I could not determine whether or not it was able to masticate or swallow it. There is no record in Bent of a Brown Thrasher preying on mammals. Karen Eastman, 7000 Valley View Road, Edina 24, Minnesota.

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KENTUCKY WARBLER BANDED AT ROCHESTER—On May 29, 1963 I caught a Kentucky Warbler in a mist net at my home banding station in Rochester, Olmsted County. The bird was caught and banded at approximately 9:00 P.M. The bird was verified as a Kentucky Warbler by Carl Johnson. Ted Johnson and Orwin Rustad took a series of pictures of the bird and then it was released. As far as known this is the first Kentucky Warbler banded in Minnesota. This also represents the second verified record for this species in the state, a dead bird was found in Minneapolis in May, 1961 (Flicker, Vol. 33, No. 3. p. 91). John P. Feehan, 604 20th Avenue S.W., Rochester, Minnesota.

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BLUEBIRD REFLECTIONS-A little news item, appearing a number of months ago in the Ford Times, a small magazine published for Ford car owners, related the success of a southern Illinois man whose birdhouse building hobby helped bring Eastern Bluebirds to his area. This prompted my wife last spring to purchase a half dozen bluebird house kits. The houses were assembled and placed around a woods near our summer cottage at Swan Lake, Itasca County. On the week end of May 4, 1963, my wife and daughter reported sighting an Eastern Bluebird near a hole in a dead tree on our property at the south end of the lake. Shortly after 5:00 A.M. on May 11, while I was busy in the kitchen of our cottage an odd thumping noise followed by a soft scraping sound, which persisted in regularity, called my attention to the living room. At first glance I could find nothing and returned to the kitchen. When the sound was renewed I went back to the living room and saw what was causing the noise. A pair of Eastern Bluebirds were alternately making attempts to rid their chosen nesting area of other bluebirds. The other bluebirds were, of course reflections in our bay window. I awakened my wife who skeptically agreed to come downstairs. Her excitement was no less than mine when she entered the room and caught sight of the male's brilliant blue and orange colorings and the slightly less colorful beauty of the female. It was evident the female had chosen a spot for a home and was insistent that her mate see to it that other bluebirds were kept out of the area. We continued to hear the two determined birds bumping against the window. Everyone concentrated on watching the birds who would fly away momentarily into the back yard or down to the ground to pick up some food and then would come back to the birch tree outside the window to renew their efforts. A nearby wren house, unoccupied, attracted the birds attention but they could not get in the hole. We decided to move one of the houses placed at the edge of the woods nearer to the house. Enroute to the woods I saw a bluebird enter one of the houses which had been mounted on a basswood some distance from the woods. When I returned with the bird house, the birds were again outside the window and though I worked only a few feet from them, they remained unafraid as I put up the house. When I went back into our house, the two birds repeatedly tried out the house but it appeared the perch was too low. I went out with a drill and peg to put on a new perch. Though they made numerous visits to the house it did not appear to meet with their favor. The next morning we found the birds back but this time they kept their perch on a tree outside the kitchen window. When the temperature dropped to chilly depths and a strong, cold wind began to blow in off the lake, most of our bird friends deserted us, including the bluebirds. Though we looked throughout the balance of the day the birds did not return. On May 14, a trip to the lake revealed that the bluebirds were there. Where they are nesting we do not know.—Everett C. Blomgren, Virginia, Minnesota.

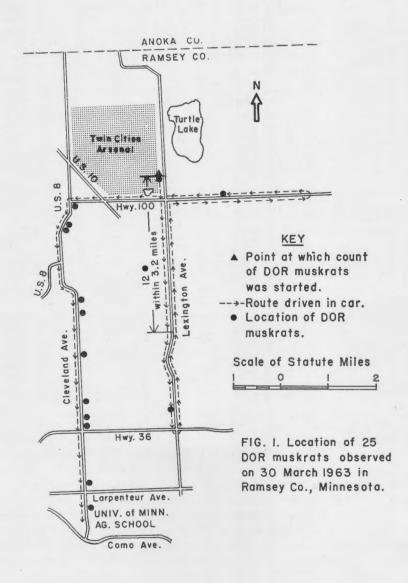
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OBSERVATIONS OF ROAD KILLED MUSKRATS—Movements of Muskrats in the spring of the year are well known and road killed animals are a common sight. However, I was impressed with the number of dead muskrats seen in a few miles of driving on March 30, 1963 in Ramsey County, Minnesota.

The locations of twenty-five muskrats are shown in Fig. 1. After stopping to pick up a specimen to be saved for the museum, I kept count of the number of dead muskrats seen. The twenty-five observed dead muskrats occurred within approximately seventeen miles, an average of approximately one muskrat per two-thirds of a mile. Unfortunately nearly all the dead animals had been scavenged or almost completely destroyed by motor traffic. It appeared as if most of the animals had been on the road for two or three days. In addition to the specimen saved, the sex was determined on only one other specimen, a male. Other museum personnel have noticed what appeared to them to be an unusual number of road killed muskrats in the week of March 24-30, 1963.

The week preceding the date on which these animals were observed was an unusually warm one for this region with temperatures rising above 70°F. This completed the melting of a previous seven inch snowfall. While this melt did not appear to the writer to have caused any true flooding of marshes, possibly it triggered a movement. Errington (1940, Natural restocking of muskrat-vacant habitats. J. Wild. Mgmt. 5:173-185) noted that spring dispersal may or may not be associated with floods, and that intraspecific friction, i.e. sexual and territorial intolerance of members of a population occurring at approximately the same time, could probably disperse the greater part

of a dense wintering population within a few days. Examination of the uterus of the female saved showed no evidence of pregnancy. Also, spring dispersal can be associated with the selection of suitable breeding territory and summer habitat (Errington, op. cit.). Considerable road construction work has eliminated and is, at present, eliminating many suitable marshes for muskrats in the vicinity where the dead animals were observed. Possibly this loss of habitat was acting as a contributing factor to muskrat movements in this local area. Dennis G. Raveling, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.



SCISSOR - TAILED FLYCATCHER IN HENNEPIN COUNTY—On August 10, 1963 a Scissor-tailed Flycatcher was seen on five different occasions near our home along the Minnesota River in southern Hennepin County. The bird was sitting on a fence line or power line throughout the day. We were able to get very close to the bird and I am sure of the identification as I have seen dozens of this species in Texas and Mexico. The identification was verified by Mary Lupient. The bird was not seen again even though several observers checked the area the following week. Mrs. G. L. Patchin, 8301 W. 108 Street, Minneapolis, Minnesota.

ADDITIONAL CINNAMON TEAL RECORDS—Because of the scarcity of records of the Cinnamon Teal in Minnesota I thought it would be worthwhile to record two previous observations of this bird. The first bird, an adult male, was seen on a slough adjoining Lobster Lake, Douglas County on May 23, 1959. The second record, another adult male, was from Maple Lake, Wright County on June 4, 1960. It would appear that from these records and the birds observed in the spring of 1963, that the Cinnamon Teal is increasing its frequency of occurrence in central Minnesota.—Ken Haag, 679 Jessamine Avenue, St. Paul, Minnesota.

RED FOX: A RECORD OF ITS SPEED—While driving along a gravel-surfaced county road near Cramer, Lake County, on August 11, 1963, I topped a small rise and surprised a Red Fox standing in the middle of the road. The fox fled down the road, and, thinking to gauge its speed, I closed the gap until the car was about 50 to 75 feet behind it and maintaining a steady interval. For perhaps two-hundred yards the fox ran at 30 to 32 m.p.h. It then slackened its pace to 20 m.p.h. so abruptly that I had to brake the car to keep from running it down. This latter speed it maintained for a full quarter of a mile after which it turned sharply and ran down a logging road. I did not follow but watched it until it vanished over a rise perhaps another quarter of a mile down the road. It did not appear to further dimish its speed and made no attempt to run off either road into the brushy woods on either side. I conclude that, while this fox could make 30 m.p.h. in short burts, it was incapable of maintaining a speed of more than 20 m.p.h. for any distance.—R. A. Grant, 111 E. 9th St., Morris, Minnesota.

SILVER-HAIRED BAT AT MORRIS—Gunderson and Beer, in The Mammals of Minnesota, 1953, term the Silver-haired Bat "relatively rare in Minnesota" adding however that it "may be expected anywhere in the state" (p. 58). Their distribution map shows records in eight counties, all considerably north or east of Stevens County. On August 14, 1963, in the course of felling a large dead elm behind his house, my next door neighbor noticed a small bat start from under one of the loose sheets of bark. It lit six feet up in a small tree where I was able to examine it closely. The dark brown fur and liberal dusting of white hairs on the back identified it as a Silver-haired Bat, with which identification the conformation of the nose, tragus, and ear agreed.—R. A. Grant, 111 E. 9th St., Morris, Minnesota

## **BOOK REVIEW**

BIRD WATCHING, HOUSING AND FEEDING, by Walter E. Schutz, 168 pages; May 31, 1963. The Bruce Publishing Company, 400 North Broadway, Milwaukee 1, Wisconsin. \$3.75.

Walter E. Schutz, a long time hobbyist with an intimate knowledge of the nesting and feeding habits of birds, is the author of a new book, *Bird Watching*, *Housing and Feeding*.

A complete rewrite of an earlier book, it is an attractive and comprehensive source book for those who want to know how to attract birds through planting and through providing food, water and shelter for them. An entirely new section on bird watching covers the entire scope of this wholesome outdoor hobby.

"As a result of enriched school curriculums, heightened interest in conservation, a trend toward low cost do it yourself activities, and increasing numbers of families seting up suburban households," the author says, "bird watching and housing has become one of today's most widespread hobbies."

With this in mind, the author introduces the whole gamut of bird watching, discussing such things as how to attract birds, types of bird watching and the equipment needed. Included is a discussion of bird photography, banding of birds, migration, field trips, nesting habits of common birds and where to find them, identification of bird calls, taking a bird census, and how to start a bird club.

Of the three essentials for attracting birds, food, water and shelter, Schutz believes that food is the most important. He discusses the eating habits and preparation of food, building of feeders at great length. In twenty years of feeding birds and studying them at feeding, he has developed many approved feeders, many with devices to

protect birds from their natural enemies.

A special feature of the book is the annotated list of popular trees and vines that attract birds.

It is hard to imagine a book more inclusive than Schutz's *Bird Watching*, *Housing and Feeding*. A chapter is included on pools and bird baths, and a list of dimensions for shelters for 27 different birds.

One complete section of the book is devoted to the building of feeders and houses.

Drawing on his many years of experience as a woodworking hobbyist, the author gives complete drawings and a bill of materials and instructions with each different house or feeder. A photograph of each completed project is also shown.

This section of the book shows a great variety of design and type of material used. There are ornamental cement birdhouses, a wren house made out of an old herring pail and ingenious adaptations of such things as flower pots, gourds, tiles and other ready made materials which are magically turned into houses with a hole drilled here or a covering added there.

The average bird lover, to do a good job of housing wild birds, will find all the information he needs within the covers of *Bird Watching*, *Housing and Feeding*. It is designed to meet the needs of those with just a mild interest in doing a little winter feeding, or the serious bird lover or student in biology or science who wants to get started at more scientific study of birds. Finally, the book will appeal to those who like to work with wood, but who want instructions that are clear, simple and complete.

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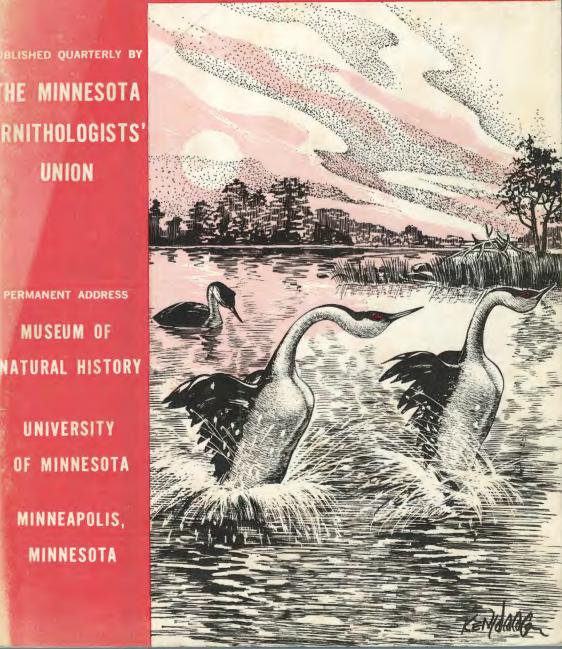
HE MINNESOTA RNITHOLOGISTS' UNION

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UNIVERSITY OF MINNESOTA

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# THE FLICKER

Organ of the *Minnesota Ornithologists' Union*. Published quarterly in March, June, September, and December. *The Flicker* is sent to all members not in arrears for dues. Dues for members: Active, \$3.00, Sustaining, \$5.00; Life, \$50; Patron, \$100 or more. All articles and communications for publications should be sent to the editor. Subscriptions, memberships, and requests for back issues should be sent to the treasurer.

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## FRONT COVER

Western Grebes by Ken Haag

## PRESIDENT'S PAGE

The two major steps taken at the 1963 meeting of the Minnesota Ornithologists' Union, incorporation and change of name of the official organ of the M. O. U., were, I think, two of the most important decisions in the organization's quarter of a century existence. They are important, that is, if we take advantage of them.

Incorporation is a legal device protective in nature. Its benefit to the M.O.U. is enabling, it enables us to set up the machinery for accepting gifts, bequests and memorials. Walter Pratt and his committee will continue until the machinery is functioning. From there, it is up to you. It is high time that we developed an endowment fund.

Some time after Forest Strnad first became president of the M.O.U., the Common Loon was named the state bird. Since that time he has worked to change the name of our publication from *The Flicker* to *The Loon*. Sentiment and 25 years of usage are big obstacles to overcome, but the name "Flicker" seemed tied to nothing, and surprisingly, the change was almost unanimous both in the Policy Committee and at the annual meeting. So, beginning with the March 1964, issue, the name of your magazine will be changed. As soon as it is practical, a shoulder patch will be available. The design will be seen on the cover of the March issue.

An attractive emblem has the effect of tieing a group together. It shows unity, and like any other emblem serves to introduce the interest of one individual to another. The advertising of the M. O. U. should bring its own rewards to the Union.

Sincerely, P. B. Hofslund President

## FEBRUARY NORTH SHORE FIELD TRIP

The annual M. O. U. trip to Grand Marais to see northern wintering birds and to meet with the Thunder Bay Field Naturalists' Club will be held February 15th and 16th. On Saturday the dinner and meeting will be held at 5:00 p.m. in the Grand Marais High School. Make reservations for the dinner with Mrs. A. M. Fenstad, Grand Marais. Cost of the dinner is \$2.00 and can be paid at the door. Hotel accommodations can be had at the East Bay Hotel or the Shoreline Motor Lodge in Grand Marais; reservations are recommended.

# Destruction of Birdlife in Minnesota -- Sept. 1963

## I. BIRDS KILLED AT THE LEWISVILLE TELEVISION TOWER

## by Robert B. Janssen

On September 21, 1963, Ray Glassel, Ronald Huber, Michael Janssen, and I were returning to the Twin Cities from Truman, Minnesota when we noticed a television tower along highway 15 near Lewisville, Watonwan County. It was learned that this tower is the transmitting station for KEYC-TV at Mankato, Minnesota. The tower stands 1116 feet above ground level in a plowed field. The surrounding area is generally level farming country.

We decided to stop and see if any birds had been killed at the tower. We had heard reports during the week of birds being killed at towers in Eau Claire, Wisconsin and Duluth, Minnesota on the nights of September 18 and 19. When we arrived at the tower we met Earl Kopischke of the Madelia Game Research Center. He was already picking up dead birds in the area surrounding the tower. After speaking with Mr. Kopischke we learned that he had picked up over 300 dead birds in the area the day before (September 20).

During the next three hours we collected an additional 600 birds making a grand total of 924 individuals. These birds were brought back to my home where they were identified. The list that follows gives a breakdown by species. (Table I).

# TABLE I Birds Picked Up Dead At Lewisville Television Tower 9-21-63

Sora 3
Yellow Rail 2
Mourning Dove 1
Traill's Flycatcher 5
Least Flycatcher 6
Red-breasted Nuthatch 1
House Wren 7
Long-billed Marsh Wren 3
Short-billed Marsh Wren 5
Catbird94

Wood Thrush 2
Swainson's Thrush51
Grav-cheeked Thrush 2
Veery
Ruby-crowned Kinglet 1
Yellow-throated Vireo 3
Solitary Vireo45
Red-eyed Vireo305
Philadelphia Vireo18
Warbling Vireo11
Black and White Warbler30
Tennessee Warbler12
Nashville Warbler72
Parula Warbler 1
Yellow Warbler 7
Magnolia Warbler 2
Myrtle Warbler 1
Blackburnian Warbler 1
Chestnut-sided Warbler17
Bay-breasted Warbler11
Pine Warbler 3
Palm Warbler 1
Ovenbird90
Ovenbird90 Northern Waterthrush4
Connecticut Warbler 3
Mourning Warbler
Yellowthroat
Yellowthroat
Canada Warbler
American Redstart 3
Bobolink 1
Baltimore Oriole
Scarlet Tanager
Rose-breasted Grosbeak
Indigo Bunting
White-throated Sparrow
Lincoln's Sparrow
Total Species 47
Total Dicties II

The birds picked up were in various conditions, indicating that the kill took place on different days. It was our guess that the kill occurred on the nights of September 18 and 19. Again guessing, it would appear from the specimens that ½ of the kill occurred on each night. The weather conditions in the general area on these two nights was cloudy, overcast, low

Total Individuals ......924

ceiling and a light drizzle or rain was falling after dark. An intense low pressure area was centered over northern Minnesota at this time. The exact weather conditions at the tower on these two nights are unknown.

From reports received from Eau Claire, Wisconsin, Duluth and Ostrander, Minnesota it would appear that a heavy migration of passerine birds was in process on September 18, 19 and 20. The combination of this heavy migration with a number of "favorable" weather factors (low pressure, overcast skies, rain etc.) produced the large kill of birds across Minnesota and Wisconsin.

From notes kept by myself, a migration of birds was noted in the south Minneapolis area on September 18. After dark (around 9:00 p.m. CST) many "chips" could be heard from birds passing overhead. No attempt was made to count the number of "chips" heard in a given length of time. If I had counted the number of "chips" I am sure that a constant stream of migrants would have been noted. Those "chips" were heard again on the next night (September 19) in the same area and in about the same frequency as the night before.

From the above information it can be reasonably concluded that a heavy migration of birds took place across Minnesota on September 18 and 19 and also that a heavy toll of birdlife was taken at television towers and other obstructions in Minnesota. 1817 W. 59th Street, Minneapolis, Minnesota.

## II. BIRDS KILLED AT THE OSTRANDER TELEVISION TOWER

by John Feehan

This is another chapter in what may be a long story started two years ago (BIRDS KILLED AT THE KROC-TV TOWER, OSTRANDER, MINNESOTA March 1962 Flicker) by Reverend Strnad. The night of Thursday, Sept. 19th was a quiet, cloudy night with intermittent light showers. The high temperature of the day was 67 degrees, reached at midnight. In contrast to the 1961 report there was no marked change in weather conditions to account for the heavy migration that night. A migration so heavy that at several intervals during the night when we went out of the house birds could be heard going overhead in a steady stream.

During the night birds were raining down so heavy around the tower that Jerry Saxton, resident engineer called Carl Johnson at 1:30 a.m. Carl called us the next morning and my wife and I went down to Ostrander. When we got there we witnessed a scene that one would hardly believe unless he sees it. The birds covered the ground like leaves. In fact, except for the small mowed area where the birds

were clearly visible you were practically stepping on birds. Having limited time, we couldn't undertake to count each bird individually but we did try to determine how many species and estimate the number of dead birds. We identified 28 species and estimated the number to be between 1,000 and 1,500 dead birds in the mowed area of about an acre, with no idea of how many more would be in the surrounding soil bank and hay field which is on all four sides of the tower.

In 1961 a camera man from KROC-TV came down to take pictures and estimated the kill at between 1500 and 2000 birds, which Reverend Strnad thought a little high. The same camera man was there this year and said there were many more dead birds this year than in 1961.

The following is a break-down of the species and number of birds actually collected by us which we figured wasn't a quarter of the birds:

Black-billed	Cuckoo									2
Swainson's	Thrush .									74
Gray-cheeke	d Thrush	ı								9

Ovenbird	Wood Thrush
Chestnut-sided Warbler 8	American Redstart
Philadelphia Vireo 2	Blackburnian Warbler
Red-eyed Vireo23	Black-throated Blue Warbler
Canada Warbler 2	Palm Warbler
Rose-breasted Grosbeak10	Tennessee Warbler
Catbird12	
Magnolia Warbler 5	One wonders how necessary it is to
Northern Waterthrush 5	have all these lights on, on nights of
Hermit Thrush 1	such low visibility. When, as for in
Least Flycatcher 1	stance the next morning in the day
Black and White Warbler 8	light the top of the tower wasn't vis
Scarlet Tanager 3	ible in the clouds. Dr. Don Mathieson
Yellowthroat 5	tells us that in England they are nov
Solitary Vireo 4	shutting these lights down on night
Mourning Warbler 2	of low visibility during the migration
Wilson's Warbler 1	
Nashville Warbler 3	604 20th Ave. S. W., Rochester, Min
Yellow-billed Cuckoo 2	nesota.

## III. NOTES ON KILLS AT DULUTH ON SEPTEMBER 18/19

## by Janet C. Green

According to personel at the Weather Bureau at the Duluth airport birds were killed only about 10-20 minutes before the ceilometer was turned off at 9:00 p.m. During this time the air was thick with birds and when it become apparent that they were falling to the ground the light was turned off. If it had been kept on, the kill certainly would have been tremendous. My husband and I arrived at the airport at 9:30 p.m. and during the next two hours collected and identified the birds that had been killed. During this time constant chipping was heard from the stream of migrants overhead but unfortunately no chip counts were made. Two of the birds picked up at the airport provided good evidence to support our theory of how the birds are killed. We think that most deaths are due to mid-air collisions of the birds which then fall stunned to the concrete runways and are killed. Two birds that I picked up had feathers, obviously not their own, adhering to their bills, as if they had rammed into another bird head first. During the time of the kill the wind was NNW at 8-9 mph. At 8:00 p.m. the ceiling was 7500' and completely overcast. At 8:50 the ceiling was the same with a

broken cloud level at 1300'. At 9:00 the whole ceiling had dropped to 1300'. Stunned and crippled birds were quite in evidence around the airport from about 9:00 to 9:30 but after that became less numerous.

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The birds at the TV tower, which is about 800 feet high, were collected from 7-8:00 a.m. The area around the TV tower is covered with tall weeds, bushes and high grass so probably many were missed. From 7 to 7:30 small birds could be heard and seen passing overhead along the ridge line to the southwest, but after 7:30 their number fell off.

Column A: Birds killed at the Duluth airport ceilometer between about 8:30 p.m. and 9:00 p.m. on Sept. 18, 1963. Practically all birds that were killed were picked up.

Column B: Birds picked up at the WDSM TV tower, Duluth, the morning of Sept. 19, 1963; all that could be found but heavy cover probably obscured more.

	A	В
Sora	1	
Swainson's Thrush		
Red-eyed Vireo	3	

Philadelphia Vireo	3	2	Connecticut Warbler	4	
Black and White Warbler		1	Mourning Warbler	2	
Tennessee Warbler		3	Canada Warbler	1	
Nashville Warbler		3	American Redstart	8	2
Magnolia Warbler	5	4	Unidentified	10*	6
Myrtle Warbler		1	Total identified	82	29
Chestnut-sided Warbler	8	2			
Bay-breasted Warbler	10	5	* approximate number of	mash	her
Blackpoll Warbler		1	birds in the parking lot that		
Palm Warbler			picked up; they had been r		
Ovenbird	22	4	picked up, they had been 1	444 01	01.
Northern Waterthrush	1		1923 Greysolon Road, Duluth	, Min	ne-
Yellowthroat		1	sota.		

## IV. BIRDS KILLED AT PARK RAPIDS

by Mrs. A. W. Peterson

"Many people read of the slaughter of birds that occurred the night of September 18, over Eau Claire, Wisconsin when thousands of migrating birds became disoriented due to fog and low ceilings and were killed as they flew around the tall TV tower. A similar tragedy occurred on a smaller scale in northern Minnesota at Park Rapids. At 2:00 a.m., September 16, we were awakened by the sound of birds circling overhead too high to be seen, although the dense fog would probably have prevented observation. Our first thought was of a duck or goose migration, but the birds were making no progress in a southerly direction, and the cries were unfamiliar to us.

In the morning Main Street was littered with dead or dying birds that had evidently dashed against the buildings as they sought their direction by the street lights. Some fifty we counted in one block, and others had already been swept into the gutters. We carried home two for identification and concluded they were immature Yellowthroats. Since, to many people, a small yellow bird is either a goldfinch or a canary, which definitely these were not, we sent a pair to the Minnesota Museum of Natural History for verification. Word was received from the Museum verifying my identification. Mrs. A. W. Peterson, 109 East 1st Street, Park Rapids, Minnesota.

## V. TELEVISION TOWERS IN MINNESOTA

by Robert B. Janssen

The following list of television towers includes only those 500 feet high and over. Towers of this height appear to be the ones most likely to kill birds. This does not mean that lower towers and other obstructions do not kill birds. However, the large kills of birds thus far on record have occurred at television towers over 500 feet high and especially those close to 1000 feet in height. There are a total of 172 radio

and television towers 200 feet in height and over in Minnesota.

It is hoped that publication of this list will interest individuals and groups in checking these towers for bird kills. The critical time for observations to be made at the towers is during May and September. These months are, of course, the months of heaviest bird migration in Minnesota. When weath-

er conditions such as low pressure, overcast skies, drizzle or rain occur in May and September, the towers should be checked as soon as possible. The heaviest kills appear to take place in September.

If a kill is discovered, the should be collected and identified as to species. Please contact me by phone or letter giving information on when the kill occurred, number of birds killed and the number of species killed. If at all possible preserve the birds by refrigeration. The Museum of Natural History would like to have as many specimens as possible.

The checking of these towers can be a project for your bird club. Over half of the high towers are located in or near cities with organized bird clubs. Your cooperation can lead to a better understanding and possible solution to the tragic problem of destruction of birdlife at these towers.

## TABLE I Location and Height of Minnesota **Televison Towers** (500 feet and over)

Ostrander, Fillmore County—1315'
 Westport, Pope County—1130'

3. Lewisville, Watonwan County 1116'

Hackensack, Cass County—999'

5. Duluth, St. Louis County-816'

6. Anoka, Anoka County-654'

7. Minneapolis, (Foshay Tower) Hennepin County-608'

8. Winona, Winona County-603'

9. LaSalle, Watonwan County-600'

10. Worthington, Nobles County-591'

11. St. Paul, Ramsey County-583' 12. St. Paul, Ramsey County-562'

13. Bird Island, Renville County-550'

14. North Mankato, Nicollet County-

15. St. Cloud, Stearns County-502'

16. Brainerd, Crow Wing County-500'

17. Willmar, Kandiyohi County-500'

18. Little Falls, Morrison County-500' 1817 W. 59th Street, Minneapolis, Minnesota.

## THE STATUS OF THE BALD EAGLE ON THE CHIPPEWA NATIONAL FOREST

## by John Mathisen

The Bald Eagle has been receiving considerable attention in recent years due to evidence that the continental population is declining rather severely. In fact, numbers have been reduced to such an extent that there is some concern over its future as a species. In 1961 the National Audubon Society initiated the Continental Bald Eagle Project, designed to evaluate the population status of the species and to study various aspects of the eagle's life history.

The Forest Service of the U.S. Department of Agriculture has been cooperating with the Audubon Society in locating and studying the eagle nests within the National Forests. This report concerns recently completed nesting studies and management considerations initiated on the Chippewa National Forest in Minnesota. It is part of a broad multiple use program for the National Forests which includes management of wildlife and its habitat for both game and non-game species.

### General Situation

Studies have indicated that an estimated 4,000 Bald Eagles inhabit the continental United States. This is based on a winter inventory which probably includes most eagles nesting in Canada. An examination of eagle nests throughout the country has revealed that poor reproductive success may be an important factor in the decline of the eagle population. Nesting success has varied considerably in different sections of the country and there are some areas where there has been no



# PROTECT AMERICAN EAGLES FEDERAL AND STATE LAWS FORBID HUNTING THEM

evidence of successful reproduction.

The over-all success of 515 eagle nests studied in 1962 was about 44 percent, well below the normal expected rate of reproduction. The average number of eaglets per nest was 1.4. There is increasing evidence that infertility of eggs may be a contributing factor to the population decline. Ingestion of insecticides as a possible cause of infertility is being investigated by the Bureau of Sports Fisheries and Wildlife at the Patuxent Wildlife Research Center in Maryland. Tests have shown DDT residues in eggs and tissues of eagles submitted for analysis from various parts of the country. The tolerance level of insecticide contamination is not known for the species, although testing is in progress.

Human disturbance at nest sites and direct killing are also believed to be important factors in the decline of the eagle population, although these factors have not been fully evaluated.

Description of the Forest

The Chippewa National Forest is situated in northern Minnesota with the Forest Supervisor's Office at Cass Lake. The Forest comprises a gross land area of approximately one-andone-half million acres. The net area, or land actually government-owned and administered, comprises 646,220 acres. The Chippewa is located at the headwaters of the Mississippi River and is charactreized by a large number of lakes and streams. There are 1,217 lakes and 155 named streams, constituting over 337,000 surface acres of water. This abundance of open water, associated with dense stands of timber, marshes and swamps, provides an important and favored breeding area for the Bald Eagle. Mature red and white pine provide excellent nest sites.

The Forest is composed of ten major timber types, varying somewhat in composition and quality by site characteristics. The pine types are generally found on sandy soils. Heavier

soils support hardwood species, including aspen-birch which is the dominant type on the Forest. Lowland and poorly drained areas are characterized by white cedar, black spruce and tamarack.

The topography of the Chippewa is generally flat, except in the northeast and southwest corners which are hilly. Elevations range from 1,300 - 1,400 feet above sea level.

Timber is cut commercially and represents the major land use on the Forest, although recreation and wildlife are becoming increasingly important in the management of the Chippewa and other National Forests.

#### Methods

The first intensive effort to locate and study individual eagle nests was made in 1963. Field personnel, working from eight ranger districts on the Chippewa were instructed to make permanent records of known eagle nests. Help was also solicited from local residents, resort owners, and game wardens for obtaining nest locations. A nest was not considered to be an authentic record, however, unless it was observed by the Forest biologist or some other qualified observer.

An attempt was made to observe the nests in April for evidence of nesting activity. A nest was considered active if adult eagles were present at the nest, or if droppings at the base of the tree indicated substantial use of the nest. The active nests were checked again in late June and early July to determine if young were present. If young were observed, they were counted, and the nesting attempt was considered successful. If young were not present, the nesting attempt was considered unsuccessful. By observing nests at both times it was possible to determine if the nest was successful in reference to the nesting attempt. Since many nests were inactive, it would not be possible to determine if nesting had actually occurred in these nests if observed only during the latter stages of the breeding cycle.

#### Results

## **Nesting Success**

Sixty-eight nests were reported. Forty-eight of these were considered to be authentic records. Six proved to be Osprey nests and several had blown down or were otherwise destroyed. We have data for 31 of these nests in 1963.

Twenty (64 percent) of the nests studied were considered to be active in 1963. Of these, only six (30 percent) were successful in bringing eagles to an advanced stage of development. Three of these produced one eaglet, two nests produced two eaglets, and one produced three eaglets for an average of 1.7 young per nest.

This does not represent the total number of eagles nesting on the Chippewa. Adult eagles were observed consistently in areas where nests have not been reported. Some reported nests could not be found with available descriptions and time limitations. As the inventory develops, we should locate additional nests.

### **Nest Locations**

The eagles showed a decided preference for mature pine trees for nesting sites. Forty-eight percent of the nests were in mature red pine, 31 percent in white pine, and 21 percent in hard wood species, including balm of gilead, aspen, American elm, and basswood. Two nests were located in dead trees.

Detailed notes were taken on the specific nest site characteristics. A slight preference was indicated for marsh and swamp edges, particularly cedar swamps. Proximity to open water was an important factor in nest location. Sixty percent were located within one-quarter mile of open water, 18 percent between one-quarter and one-half mile, 14 percent between one-half and one mile, and only 8 percent one mile or more from water.

#### Discussion

It is evident that the Chippewa National Forest is an important breeding area for the Bald Eagle. Although the size of the breeding population is unknown at the present time, it is certain that a minimum of 20 pairs used

the Chippewa as nesting range in 1963. We are also certain that a substantial number of nests have not been located.

A nesting success of 30 percent is higher than that indicated in some other sections of the country, although it is alarmingly low for a species of this type. Annual reproduction probably does not replace mortality at this level of success. The reproductive potential of the species is further reduced by the long period required for sexual maturity (four years or possibly longer.)

A brood size of 1.7 young is probably near normal, or perhaps slightly higher than normal, based on productivity studies in Florida.

The cause of nest failure is not known. One abandoned nest tree was climbed and found to contain two decomposed eggs. Desertion could have resulted from human disturbance, although other nests in very isolated locations were not successful.

There has been no large-scale application of insecticides on the Chippewa in recent years, but it is conceivable that insecticides could be ingested in the eagle's wintering range, with resultant effects on fertility.

### Management

Management considerations for the Bald Eagle on the Chippewa have been developed in a three-phase program: inventory, evaluation and protection.

#### Inventory

Locating Bald Eagle nests will be a continuous job by field personnel engaged in National Forest management. The importance of keeping permanent records of known nests has been stressed. The nesting inventory will develop through the years and will form a basis for the other phases of management.

#### Evaluation

Known nests will be checked annually to determine nesting activity, reproductive success and causes of nest failure. Trends in nesting success can then be established. This will be the Chippewa's contribution to the development of a national status report for the species through the leadership of the National Audubon Society.

#### **Protection**

This is the most important phase of the management program. Preservation of nest trees from logging operations and protection of the nesting area from disturbing influences are considered to be important facets of management. Present policy is to preserve a buffer zone of 200 feet around active nests, and to the extent feasible, prohibit logging operations within one-quarter mile of nests during the nesting period.

It is not known what level of human activity eagles will tolerate before nest desertion occurs. Further research into the eagle's breeding biology may provide further information in this regard.

The protection of the eagles themselves will also be considered. Eagles are protected by Federal and State laws, and Forest personnel will strive to educate the public to the need of protection, and to cooperate fully with law enforcement officials. Chippewa National Forest, Cass Lake, Minnesota.

## WHY DOES A DUCK FLOAT?

by William D. Schmid

The easiest and most obvious answer to the question of why a duck floats is that it is able to displace a volume of water which weighs more than its body; i.e., its specific gravity is less

than that of water. This implies that there is material less dense than water contained within the structure of a duck. "Trapped" air is mainly responsible. Orr (1961) stated that an import-

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ant function performed by the feathers is to aid in increasing buoyancy. The undersurface of the body of swimming birds is densely covered with feathers between which there are pockets of air. The birds, therefore, rest on their own life rafts. However there are also internal structural modifications which contribute to the light weight of birds; notably, light bone structure and a system of air sacs, part of the respiratory system, within the body cavity. these modifications thought of by comparative anatomists to be primarily adaptive for flight, they should not be overlooked as a component of buoyancy. In fact the work of Elder (1954) has shown that ducks are able to float independent of the air trapped in the plumage. He found that ducks placed in water with a wetting agent to destroy the surface tension would sink until only the head remained above the water. From this we also see that a duck floating naturally on the water must preserve a watertight surface covering to prevent water from displacing the air contained in the plumage. So the question of why does a duck float has become, at least in part, the question of how does a duck floating on water remain dry.

To introduce the problem of the nature of waterproofing in duck feathers, a quotation from Wallace (1955) seems appropriate: "A duck's closely imbricated feathers are structurally waterproof, perhaps with the aid of secretions from the oil gland." So immediately an argument of structural waterproofing is complicated by the question of a possible role of the preen gland as a source of waterproofing oils. One of the earliest discussions of the role of the preen gland may be found in a series of papers by Waterton (1832, 1833, 1860), Henslow (1832, 1833), Barker (1833) and Morris (1836). The argument of whether or not the function of the preen gland was to lubricate plumage was not conclusively settled, and repercussions, equally inconclusive, followed at intervals in succeeding years: Bury (1844), Daniell (1846) and Matthews (1861).

In 1910 Stubbs coined the term "feather film" to describe the pile of

barbs and barbules which keeps the surface film unbroken around a bird's plumage. A photomicrograph (A) and diagram (B) which illustrate the structural nature of the feather fabric are presented in FIGURE 1. Stubbs believed that the oil from the preen gland must play but a minor role in waterproofing because ducks whose feathers he had washed in warm soda water and benzene to remove oils retained their buoyancy.

Law (1929) made the following comments concerning the waterproofness of feathers: (1) the arrangement of the feathers is such that each feather overlaps the adjacent halves of two other feathers, (2) so convexed are the surfaces that the tips of the feathers curve over and engage the feathers under them, (3) the crisscrossed barbules make the fabric of the feather extremely tight so that tthe surface tension of the water is not broken, and (4) the weight of the bird's body tends to seal the feather mass by compressing the mesh of the individual feather tighter.

Hou (1928) studying the function of the preen gland in pigeons, chickens, ducks and geese, removed the glands from experimental birds to compare plumage change and characteristics of feature structure with those of control birds whose gland were left intact. He found that the plumage of birds that had been without oil for five weeks lost its luster and smooth contour, and became soiled. The feathers, under microscopic examination, were found to have small holes present between the barbs due to the absence of patches barbules. He also compared the rates of drying and rates of water uptake of bundles of feathers and found no difference between feathers from birds without oil and feathers from birds with oil glands. Hou reported the work of Paris (1906) who stated that the oil gland is generally larger in aquatic birds, but there are some aquatic birds which have no gland at all. He also stated that even the largest gland of aquatic birds does not yield enough oil to cover the entire surface of the plumage. Subsequent experiments by Hou (1929, 1930, 1931)

demonstrated that the secretion of the preen gland contains an antirachitic factor.

Madsen (1941) concluded that the large amount of air finely distributed among the feathers is the principle cause of the plumage repelling water. Two specimens of eider ducks had their oil glands removed by surgery and then underwent a molt. The new plumage, free of oil, nevertheless repelled water to the same extent as that of two control birds which had retained their oil glands. He found tha' if the secretion of the oil gland is artificially smeared on the feathers. the barbules would clog and become hydroscopic. His last point indicates that too much oil may destroy the water proof structure of the feather.

Elder (1954) working with Redheads, Canvasbacks and Mallards, found that the plumages of birds whose preen glands had been ablated for several months lost their color and gloss, tended to mat and to become soiled, and became wet faster than the plumages of birds with functional glands. Microscopic examination of the feathers from birds whose glands had been ablated indicated that their loss of color,

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etc., was due to actual physical breakdown undoubtedly in part the result of preening activity itself. Seemingly the loss of the oil predisposed the feathers to physical degeneration, allowing them to wear more rapidly. He felt that the oil of the preen gland was also important in maintaining the surface of the bill, because without the secretion, the bills of experimental birds became dry and exhibited sloughing.

From the following discussion it is possible to summarize the components of buoyancy and answer the question of "Why does a duck float?". The components of buoyancy may be broken down into (1) light bone structure, (2) air trapped in air sacs and lungs, and (3) air held in the plumage. Air trapped in the plumage introduced the question of waterproofing feathers. Waterproofness of feathers appears to be entirely structural; i.e., the tight fabric of interwoven barbules does not break the surface tension of the water. The secretion of the preen gland is important to the maintenance of the water repellent nature of the feathers by preserving their physical structure and does not seem to function as a waterproof coating.

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## THE FALL SEASON

by Ronald Huber

Weather and general considerations: The fall season was generally mild and dry, with some unseasonably warm weather enduring through the first half of November. Except for one cold spell in mid-September (at Shotley, Beltrami Co., first killing frost was on September 19) and several cold days in early October, temperatures were very mild in what the hunters termed "Bluebird Weather." As a result, some later-than-usual dates were secured for various fauna. We took an American Copper butterfly near Cotton, St. Louis County on October 13. On November 3, a Thirteen-lined Ground Squirrel was seen near Elk River, Sherburne County and Cabbage butterflies were flying in Cass County, north of Motley. On November 9, an American Toad was still active at Swan Lake, Nicollet County. On the same day Sulfur and Alfalfa butterflies were flying in Brown County and thousands of grasshoppers were active in Watonwan County. On November 11, Dr. A. E. Allin noted many plants, including Wooly Yarrow, blooming along the north shore of Lake Superior (see his Canadian Lakehead report elsewhere in this issue). In Minnesota, Wooly Yarrow was blooming as late as November 16 in Le Sueur and Sibley Counties.

Some astonishing early and late shorebird dates were secured. American Golden Plover was first reported on July 2 and last reported on November 17, a span of 138 days (about 4½ months!). Interestingly enough, the mild weather did not seem to deter the initial southward movements of such winter visitors as the Oldsquaw, Rough-legged Hawk, Snowy Owl (a probable large-scale invasion seems imminent), Arctic Horned Owl, Common Redpolls, Pine Grosbeak and Snow Bunting. No snow of any consequence occurred in the Twin Cities region until the first week of December.

LOONS THROUGH CORMORANT: Common Loon: latest was Dec. 8, Minneapolis, Avifaunal Club.

Red-throated Loon: Oct. 13, Two Harbors, 1 in fall plumage, Avifaunal Club. Red-necked Grebe: latest Nov. 11, Cook Co., A. E. Allin.

Horned Grebe: latest Dec. 8, Minneapolis, Avifaunal Club.

Western Grebe: latest Nov. 6, Frog Lake, Stevens Co., E. Strubbe and Nov. 15, Howard Lake, Wright Co., Erma Christopher, both exceptionally late dates.

White Pelican: Sept. 29, Traverse Co., Avifaunal Club; Sept. 30, Wright Co.,

Erma Christopher: Oct. 11, Duluth, fide Ray Naddy; Oct. 27, Lac Qui Parle Co., R. B. Janssen; Nov. 3, Trav-

erse Co., R. Grant.

Double-crested Cormorant: Sept. 29, Traverse Co., Avifaunal Club; Oct. 15, Hennepin Co., Harding Huber; Nov. 17, Scott Co., W. R. Pieper.

#### **HERONS:**

Green Heron: latest Oct. 24, Minne-

apolis, R. B. Janssen.

Common Egret: Aug. 23, Dalton, Ottertail Co., 23 birds, Dennis Warner; Sept. 29, Traverse Co., Avifaunal Club; latest Oct. 20, Hennepin Co., R. Glassel. Black-crowned Night Heron: latest Oct. 5, St. Peter, Nicollet Co., Avifaunal Club.

Least Bittern: latest Nov. 5, Ramsey Co., Mpls. Audubon Society, exception-

ally late.

American Bittern: latest on Oct. 24, Erma Christopher; Nov. 2, Nicollet Co., Avifaunal Club.

DUCKS, GEESE AND SWANS:

Whistling Swan: earliest Nov. 3, Traverse Co., R. Grant; latest Dec. 1, Win-

ona Co., Avifaunal Club.

Blue-Snow Geese: earliest Sept. 21, Watonwan Co., Avifaunal Club; Oct. 13, Duluth, 1 imm Blue Goose, Avifaunal Club; Oct. 13, Two Harbors, 1 ad Blue, 2 imm. Snow, Avifaunal Club. Gadwall: latest Dec. 8, Minneapolis, Avifaunal Club.

Pintail: latest Nov. 29, Winona Co.,

Avifaunal Club.

Green-winged Teal: latest Nov. Stevens Co., R. Grant; Nov. 25, Ramsey Co., A. C. Rosenwinkel

Blue-winged Teal: latest Nov. 16, Minneapolis, R. B. Janssen, exceptionally

Cinnamon Teal: Oct. 26, Lake Emma Ottertail Co., male shot by Gerald Green.

American Widgeon: latest Dec. 8, Minneapolis, Avifaunal Club.

Shoveler: latest Dec. 8, Minneapolis, Avifaunal Club.

Redhead: latest Dec. 8, Minneapolis, Avifaunal Club.

Ring-necked Duck: latest Dec. 8, Minneapolis, Avifaunal Club.

Canvasback: latest Nov. 29, Winona Co., Avifaunal Club.

Greater Scaup: Nov. 25, Ramsey Co., W. R. Pieper.

Oldsquaw: earliest Oct. 31, Hovland, Cook Co., R. B. Janssen.

Harlequin Duck: Nov. 11, French River, St. Louis Co., 1 female, Avifaunal Club.

White-winged Scoter: Nov. 11, Clifton and French River, St. Louis Co., Avifaunal Club; Nov. 17, north shore of L. Superior, D. Meyer.

Surf Scoter: Oct. 13, Two Harbors, Lake Co., Avifaunal Club; Oct. 30, Two Harbors, R. B. Janssen; Nov. 11, Two Harbors, Avifaunal Club; presumably all observations of the same imm bird. Common Scoter: Oct. 13, Two Harbors, 1 imm female, Avifaunal Club; Nov. 1, Two Harbors and Talmadge River, R. B. Janssen; Nov. 11, Two Harbors, Stoney Point Road, and French River, Avifaunal Club; Nov. 10-11, Grand Marais, Cook Co., 1 female, A. E. Allin; Nov. 17, north shore of L. Superior, D. Meyer.

Ruddy Duck: latest Dec. 8, Minneapo-

lis, Avifaunal Club.

Hooded Merganser: latest Dec. 8, Minneapolis, Avifaunal Club.

VULTURE, HAWKS AND EAGLES: Turkey Vulture: latest Sept. 14, Nimrod, Wadena Co., R. Oehlenschlager; Sept. 28, Washington Co., A. C. Rosenwinkel.

Goshawk: for the second autumn in succession, extremely heavy numbers of Goshawks were seen at the hawk lookout in Duluth. This fall they arrived about a month earlier than last year and in still heavier numbers. Counts of 50-70 per day were realized, with 10-15 per hour during daily peaks. Broad-winged Hawk: latest Oct. 3, Duluth, Jan Green.

Swainson's Hawk: Sept. 28, Traverse Co., R. Grant.

Harlan's Hawk: Sept. 28, Traverse Co., R. Grant; Oct. 5, Carver Co., Avifaunal Club; Oct. 27, Wadena Co., R. Oehlenschlager; Oct. 28, Wadena Co., 2 seen, R. Oehlenschlager; Nov. 2, New Ulm, 1 seen R. L. Huber.

Ferruginous Hawk: Sept. 29, Barnesville, Wilkin Co., Avifaunal Club.

Golden Eagle:

Sept. 21 to Nov. 1, Duluth, 1 ad, 3 imm, fide Jan Green.

Oct. 27, Rice Lake Refuge, 3 (age?),

P. B. Hofslund.

Oct. 27, Brimson, St. Louis Co., 3 (age?), Lyle Patterson.

Oct. 28, Two Harbors, 1 imm Ruth Kuchta.

Nov. 16, Scott Co., 1 imm Avifaunal Club.

Bald Eagle:

Sept. 7 to Nov. 10, Duluth, 8 imm, 4 ad, 1 (age?) fide Jan Green.

Sept. 7, Ely, St. Louis Co., 2 ad, Jan Green.

Sept. 14, Duluth, 1 ad, *fide* Jan Green. Sept. 19, Wadena Co., 1 ad, R. Oehlenschlager.

Sept. 21, Stoney River, St. Louis Co., 2 ad, fide Lyle Patterson.

Oct. 11, Crow Wing Co., 1 ad, Elizabeth Campbell.

Oct. 22, Duluth, 1 imm, R. L. Huber. Oct. 27, Rice Lake Refuge, 1 (age?), P. B. Hofslund.

Oct. 28, Two Harbors, 1 imm, Ruth Kuchta.

Oct. 31, Crow Wing Co., 1 ad, Elizabeth Campbell.

Nov. 7, Crow Wing Co., 1 ad, Elizabeth Campbell.

Nov. 11, Two Harbors, 1 imm, Avifaunal Club.

Nov. 19, Hennepin Co., 1 imm, Mpls. Audubon Society.

Nov 24, Chisago Co., 1 imm, 1 ad, D. Honetschlager.

Nov. 26, Hennepin Co., 1 imm, 1 ad, Rachel Tryon.

Nov. 29, Hennepin Co., 1 ad, Rachel Tryon.

Dec. 1, Wabasha Co., 10 imm, 6 ad, Avifaunal Club.

Dec. 1, Olmsted Co., 1 ad, Avifaunal

Dec. 2, Stevens Co., 1 ad, Alfred Hoslin.

Osprey: Aug. 25, Ramsey Co., Elizabeth Campbell; Sept. 14, Hennepin Co., Rachel Tryon; Sept. 19, Wadena Co., R. Oehlenschlager; latest Sept. 28, Duluth fide Jan Green.

Peregrine Falcon: latest Nov. 2, Nicollet Co., Avifaunal Club; Nov. 19, Hennepin Co., Mpls. Audubon Society.

Pigeon Hawk: latest Nov. 3, Hennepin Co., W. R. Pieper; Nov. 26, Hibbing, St. Louis Co., Harriet Micensky.

GROUSE THROUGH RAILS: Spruce Grouse: Oct. 31, Gunflint Trail, Cook Co., 1 female, R. B. Janssen. Bobwhite: Oct. 12, Watkins, Wright Co., Brother Theodore.

Sandhill Crane: Sept. 29, Clay Co., about 600 birds, Avifaunal Club.

King Rail: Sept. 1, Alberta, Stevens Co., Ken Haag.

Virginia Rail: latest Oct. 5, Nicollet Co., Avifaunal Club.

Sora: latest Sept. 22, Stevens Co., R. Grant.

Yellow Rail: Sept. 21, Watonwan Co., T.V. Tower kill, 2 specimens found, Avifaunal Club.

Purple Gallinule: Nov 11, one imm found dead, 18 mi SE of Hibbing St. Louis Co., by a hunter. The specimen was sent to the Museum of Natural History on Minneapolis campus. Although this species is listed on the hypothetical list for our state, all previous records are completely unsubstantiated. Amplifying details will appear in a future issue of *The Flicker*.

SHOREBIRDS THROUGH TERNS: Semipalmated Plover: earliest, July 27, Lac Qui Parle Co., Avifaunal Club; latest, Oct. 5, Stevens Co., R. Grant. Piping Plover: July 2, Stevens Co., R. Grant; latest, Sept. 3, Duluth, Avifaunal Club and Sept. 28, Traverse Co., R. Grant, exceptionally late. Are these the first September records for Minnesota?

American Golden Plover: earliest, July 2, Stevens Co., R. Grant; latest, Nov. 16, Sibley Co., Avifaunal Club.

Black-bellied Plover: earliest, Aug. 3, Lac Qui Parle Co., Avifaunal Club; latest, Nov. 17, Stevens Co., R. Grant. Ruddy Turnstone: Aug. 24, Duluth, Avifaunal Club.

Whimbrel: Aug. 28, Duluth, D. Meyer. Upland Plover: latest, Aug. 3, Rock Co., Avifaunal Club; Aug. 10, Norman Co., Avifaunal Club.

Solitary Sandpiper: earliest, July 4, Marshall Co., R. L. Huber and July 5, Stevens Co., R. Grant; latest, Oct. 11, Fargo-Moorhead area fide Elizabeth Anderson and Oct. 13, Duluth R. L. Huber.

Willet: latest, August 3, Lac Qui Parle Co., Avifaunal Club.

Greater Yellowlegs: earliest July 18, Stevens Co., R. Grant and July 27, Lac Qui Parle Co., Avifaunal Club; latest, Nov. 3, Traverse Co., R. Grant, Nov. 3, Wadena Co., Avifaunal Club, Nov. 16, Sibley Co., R. L. Huber and Nov. 22 Hennepin Co., Mpls. Audubon Society. Lesser Yellowlegs: earliest, July 2, Stevens Co., R. Grant, July 4, Marshall Co., R. L. Huber, and July 6, Hennepin Co., R. B. Janssen; latest, Nov. 9, Sibley Co., Avifaunal Club.

Knot: Aug. 21 and 23, Duluth, R. Glassel; Aug. 26, Frontenac, Goodhue Co., 2 banded by Carl M. Johnson and Or-

win Rustad.

Pectoral Sandpiper: earliest, July 20, French River, Avifaunal Club; latest, Nov. 16, Sibley Co., Avifaunal Club and Nov. 17, Stevens Co., R. Grant. Baird's Sandpiper: earliest, July 4, Marshall Co., R. L. Huber; latest, Sept. 29, Lac Qui Parle Co., Avifaunal Club. Least Sandpiper: earliest, July 6, Beltrami Co., R. L. Huber and July 10, Lac Qui Parle Co., Avifaunal Club; latest Nov. 9, Sibley Co., Avifaunal

Dunlin: Sep 29, Big Stone and Lac Qui Parle Co.'s, Avifaunal Club; latest, Nov 9, Sibley Co., Avifaunal Club; Nov

17, Stevens Co., R. Grant.

Club, exceptionally late.

Long-billed Dowitcher: earliest, July 2, Stevens Co., R. Grant; latest, Sept. 22, Stevens Co., R. Grant.

Short-billed Dowitcher: earliest July 4, Marshall Co., R. L. Huber and July 13, Hennepin Co., R. B. Janssen; latest, Sept 1, Sibley Co., Avifaunal Club.

Dowitcher species? latest, Oct. 10, Stevens Co., R. Grant, (birds did not

give call-notes).

Stilt Sandpiper: earliest, July 4, Stevens Co., R. Grant and July 10, Lac Qui Parle Co., Avifaunal Club; latest, Sept. 21, Sibley Co., Avifaunal Club and Oct. 10, Stevens Co., R. Grant. Buff-breasted Sandpiper: Aug. 21, 23

and 24, Duluth, Avifaunal Club.

Marbled Godwit: July 4, Stevens Co.,
R. Grant (first migrants for his area);
latest, Aug. 3, Cottonwood Co., Avi-

faunal Club.

Northern Phalarope: Aug: 3, Lac Qui Parle Co., Avifaunal Club; Aug. 31, Lac Qui Parle Co., Avifaunal Club.

Red Phalarope: Nov. 17, Knife River, Lake Co., P. B. Hofslund and D. Meyer. Like the Purple Gallinule, this species is also on the hypothetical list for our state, and also by virtue of unsubstantiated evidence. The above observation was made by two very competent spotters and will be well-documented in a future issue of *The Flicker*.

Jaeger, species? Aug. 28, Duluth, D. Meyers; Sept. 15, Lake City, Wabasha

Co., Frank McKinney.

Franklin's Gull: latest, Nov. 2, hundreds in plowed fields, Martin Co., R. L. Huber.

Bonaparte's Gull: latest, Oct. 13, Duluth, Avifaunal Club.

Forster's Tern: latest, Sept. 1, Nobles Co., Avifaunal Club.

Common Tern: latest, Sept. 20, Duluth, Jan Green.

Caspian Tern: Oct. 2, Hennepin Co., Rachel Tryon and Oct. 5, Goodhue Co., R. B. Janssen.

Black Tern: latest, Oct. 5, Ramsey Co., A C. Rosenwinkel.

# MOURNING DOVE THROUGH WOODPECKERS:

Mourning Dove: Still present in Ramsey Co. on Nov. 16, A. C. Rosenwinkel. Yellow-billed Cuckoo: latest, Oct 20, Winona, Grace Gordon.

Black-billed Cuckoo: latest, Sept. 20, Fargo-Moorhead area fide Elizabeth Anderson and Sept. 20, Minneapolis, R. B. Janssen.

Barn Owl: The nesting in Martin Co. this summer was reported in the last issue of The Flicker. The last of the young left the silo on Nov. 29, with the assistance of Brother Theodore and Dean Honetschlager.

Screech Owl: Sept. 3, Stevens Co., 2 heard, R. Grant; Sept. 14, Watonwan Co., 1 gray phase DOR, Avifaunal Club; Nov. 16, Le Sueur Co., 1 gray

phase DOR, Avifaunal Club.

Great Horned Owl: the Arctic subspecies was found injured by a hunter near St. Cloud on Nov. 8 and brought to Jane Olyphant. She nursed it back to health and released it a short time later, after securing some excellent photographs. The facial discs were snowy white and perhaps the best identification character was the iris color—pale lemon—almost a whitish-yellow. On Nov. 24 in Stevens Co., R. Grant reported a very pale Great Horned Owl which he thought may have been the Arctic subspecies. Dr. Warner of the Museum staff also received a re-

port of what may have been one just north of Pipestone, in late fall. Does this subspecies move southward in conjunction with the periodic Snowy Owl invasions?

Snowy Owl: As the following records show, the beginnings of an invasion are materializing.

Nov. 3, Duluth, first report, many since, fide, Jan Green.

Nov. 6, Hennepin Co., Mpls. Audubon Society.

Nov. 9, Blue Earth Co., Maynard Nelson.

Nov. 11, Sherburn Co., Maynard Nelson.

Nov. 11, Morrison Co., Maynard Nelson.

Nov. 12, Watonwan Co., Maynard Nelson.

Nov. 16, Becker Co., Sam Rock.

Nov. 18, W. Minneapolis, Harding Huber.

Nov. 18, S. Minneapolis, *Minneapolis Star* for Nov. 19, picture, page 2C.

Nov. 20-Dec. 10, White Bear Lake, Elizabeth Campbell.

Nov. 23, Fargo-Moorhead area, fide Elizabeth Anderson.

Nov. 29, Wabasha Co., Avifaunal Club.

Dr. A. E. Allin stated in a recent letter that by Nov. 11 there were 2 reports from Grand Marais, 4 from Duluth and at least 10 from Fort William. See his Canadian Lakehead report elsewhere in this issue.

Hawk-Owl: Oct. 13, near Kelsey, St. Louis Co., Jim Towler fide Forest Strnad; Nov. 5, Cloquet Valley State Forest, Mr. Ryan fide Ray Naddy.

Burrowing Owl: Sept., exact date? Traverse Co., Nick Zeller fide R. Grant. This species presumably breeds on Mr. Zeller's land.

Long-eared Owl: Oct. 11, Chisholm, St. Louis Co., one banded, Forest Strnad; Oct. 22, Pine Co., R. L. Huber.

Short-eared Owl: Oct. 3, Jan Green; Oct. 26, Duluth, P. B. Hofslund; Oct. 27, Anoka Co., one wounded by hunter and brought to Jane Olyphant; Nov 7, Stevens Co., one wounded by hunter and brought to R. Grant.

Saw-whet Owl: Sept. 1, 4 and 9, three banded at Farm Lake, near Ely, St. Louis Co., by Jan Green.

Whip-poor-will: Sept. 26, Washington

Co., heard singing, Oliver Charley *fide* A. C. Rosenwinkel

Common Nighthawk: On Aug. 19 a flight of phenomenal size passed over Duluth. The flight was estimated to be two miles wide and Ray Naddy estimated that 1000 passed overhead in 5 minutes, during the peak. Subsequent to the peak, P. B. Hofslund counted over 6000 for the remainder of that day. On Aug. 21 a second flight took place but only of one-quarter to one-third the size of the first flight. Latest date, Oct. 12, Hennepin Co., R. L. Huber.

Chimney Swift: latest, Oct. 13, Chisago Co., R. L. Huber.

Ruby-throated Hummingbird: Sept. 10, Squaw Lake, Cass Co., Mrs. E. A. Schmid; latest, Oct. 6, Ramsey Co., A. C. Rosenwinkel.

Yellow-shafted Flicker: latest, Nov. 25, Ramsey Co., A. C. Rosenwinkel; Dec. 1, Faribault Co., W. R. Pieper.

Red-shafted Flicker: Oct. 7, Worthington, Nobles Co., Glen Smart; another was reported near Morris, Stevens Co., by Frank Breen. See Notes of Interest elsewhere in this issue.

Red-headed Woodpecker: latest, Nov. 10, Winona, Pauline Wershofen.

Yellow-bellied Sapsucker: latest, Nov. 24, Fargo-Moorhead area fide Elizabeth Anderson.

Black-backed Three-toed Woodpecker: Sept. 1, St. Louis Co., John Green; Oct. 19, Ely, A. C Rosenwinkel; Nov. 29, Hibbing, St. Louis Co., Harriet Micensky.

Eastern Kingbird: latest, Sept. 12, Ramsey Co., A. C. Rosenwinkel, Sept. 14, Nicollet Co., Avifaunal Club.

Great Crested Flycatcher: Latest, Sept. 23, Ramsey Co., A. C. Rosenwinkel.

Eastern Phoebe: latest, Oct. 11, Hennepin Co. Rachel Tryon; Oct. 19, Hennepin Co., W. R. Pieper and Nov. 1, Washington Co., W. R. Pieper.

Yellow-bellied Flycatcher: Aug. 25, Washington Co., Jane Olyphant.

Traill's Flycatcher: latest, Sept. 21, Watonwan Co., TV Tower Kill, Avifaunal Club.

Least Flycatcher: latest, Sept. 28, Hennepin Co., R. B. Janssen.

Eastern Wood Pewee: latest, Oct. 12, Fargo-Moorhead area fide Elizabeth

Tree Swallow: Oct. 13, Winona Co., Frances Voelker; Oct. 20, Washington Co., Elizabeth Campbell; Oct. 21, Wright Co., Erma Christopher; Oct. 27, Swift Co., R. B. Janssen; Nov. 2, Sibley Co., Avifaunal Club, exceptionally late. Bank Swallow: latest, Oct. 5, Nicollet Co., W. R. Pieper.

Barn Swallow: latest, Oct. 5, Nicollet Co., W. R. Pieper and Oct. 16, Crow Wing Co., Elizabeth Campbell.

Cliff Swallow: latest, Oct. 21, Wright Co., Erma Christopher.

Purple Martin: latest, Oct. 4, Washington Co., W. R. Pieper.

#### MAGPIE THROUGH WRENS:

Black-billed Magpie: Oct. 18, Shotley, Beltrami Co., Mabel Goranson; Sept. 28, Shotley, Mabel Goranson; Oct. 27, Nimrod, Wadena Co., R. Oehlenschlager.

Tufted Titmouse: Nov. 9, Ramsey Co., A. C. Rosenwinkel; Nov. 10-28, Wright Co., Erma Christopher; Nov. 16, Winona Co., Pauline Wershofen.

Red-breasted Nuthatch: Aug. 30, Washington Co., Jane Olyphant; Sept. 1, Hennepin Co., Rachel Tryon; Sept. 18, Ramsey Co., A. C. Rosenwinkel; Sept. 20, Stevens Co., R. Grant; Sept. 21, Watonwan Co., TV Tower Kill, Avifaunal Club; Nov. 7, Winona Co., Mrs. George Collins.

House Wren: latest, Oct. 5, Watonwan Co., Avifaunal Club; Oct. 13, Winona, Frances Voelker.

Winter Wren: Sept. 22, Hennepin Co., Rachel Tryon; Oct. 2, Hennepin Co., R. B. Janssen; Oct. 2-16, Fargo-Moorhead area fide Elizabeth Anderson; Oct. 6, Wadena Co., R. Oehlenschlager; Oct. 13, Hennepin Co., W. R. Pieper; Oct. 14, Houston Co., R. Oehlenschlager; Oct. 22, Wright Co., Erma Christopher. Bewick's Wren: Oct. 7, Winona Co., Grace Gordon.

Long-billed Marsh Wren: latest, Nov. 2, Nicollet Co., R. L. Huber.

Short-billed Marsh Wren; latest, Sept. 21, Watonwan Co., TV Tower Kill, Avifaunal Club.

### MIMICS THROUGH SHRIKE:

Mockingbird: Nov. 7, St. Paul, Ramsey Co., Elizabeth Leach.

Catbird: latest, Oct. 12, Ramsey Co., A. C. Rosenwinkel. Brown Thrasher: latest, Oct. 5, Frontenac, Goodhue Co., R. B. Janssen.

Wood Thrush: latest, Sept. 21, Watonwan Co., TV Tower Kill, Avifaunal Club; Oct. 1, Ramsey Co., A. C. Rosenwinkel.

Hermit Thrush: latest, Oct. 21, Ramsey Co., A. C. Rosenwinkel; Nov. 11, Stoney Point Road, St. Louis Co., Avifaunal Club, exceptionally late, bird flew feebly, may have been injured or unhealthy.

Swainson's Thrush: Aug. 30, Washington Co., Jane Olyphant; latest, Oct. 19, St. Louis Co., A. C. Rosenwinkel.

Gray-cheeked Thrush: Sept. 29, Fargo-Moorhead area, fide Elizabeth Anderson.

Eastern Bluebird: Despite many reports that the Eastern Bluebird is vanishing from former nesting areas, they were reported in satisfactory numbers this fall from Anoka, Ramsey, Wright, Winona and Fillmore Counties.

Ruby-crowned Kinglet: latest, Oct. 20, Winona Co., Hiawatha Valley Bird Club; Oct. 25, Hennepin Co., Rachel Tryon and Nov 2, Carver Co., R. L. Huber.

Water Pipit: latest, Nov. 16, Sibley Co., small flock, Avifaunal Club.

Bohemian Waxwing: Nov. 10, Duluth, Dr. A. E. Allin; Nov. 19, Fargo-Moorhead area fide Elizabeth Anderson; Dec 1, Faribault Co., W. R. Pieper.

Northern Shrike: Oct. 12, Virginia, St. Louis Co., Vera F. Barrows; Oct. 18, Beltrami Co., Mrs. John Mathisen; Nov. 3, Cass Co., Avifaunal Club.

VIREOS AND WARBLERS: Almost as if echoing the early arriving shore-birds in the first week of July, the warblers and vireos began moving during the third week of July, but in a very leisurely fashion. More noticeable movements occurred in the Arrowhead Country on Aug. 17 (D. Pearson) and the first large wave to hit the Twin Cities was on Aug. 19 (D. Pearson). Mrs. E. A. Schmid noted a wave on Sept. 21 near Squaw Lake, Cass County and Erma Christopher noted a wave in Wright County on the following day, Sept. 22.

Yellow-throated Vireo: latest, Sept. 21, Watonwan Co., TV Tower Kill, Avi-

faunal Club.

Solitary Vireo: Aug. 25, Washington Co., Jane Olyphant; latest, Oct. 13, Hennepin Co., (singing, also), W. R. Pieper.

Red-eyed Vireo: latest, Oct. 5, Waton-

wan Co., Avifaunal Club.

Philadelphia Vireo: Aug. 19, Anoka Co., D. Pearson; latest, Sept. 25, Minneapolis, R. B. Janssen. Also noted Sept. 1 in Rock Co., Avifaunal Club.

Black and White Warbler: latest, Sept. 24, Ramsey Co., A. C. Rosenwinkel. Golden-winged Warbler: Aug. 11, Anoka Co., D. Pearson; Aug. 30, Washing-

ton Co., Jane Olyphant; Sept. 13, Hennepin Co., Rachel Tryon.

Tennessee Warbler: latest, Oct. 5,

Goodhue Co., R. B. Janssen.

Orange-crowned Warbler: earliest, Sept. 6, Shotley, Beltrami Co., Mabel Goranson; latest, Oct. 19, Minneapolis, R. B. Janssen and Oct. 22, Fargo-Moorhead area fide Elizabeth Anderson.

Nashville Warbler: latest, Oct. 22, Fargo-Moorhead area fide Elizabeth An-

derson.

Parula Warbler: latest, Sept. 21, Hennepin Co., Rachel Tryon and Sept. 21, Watonwan Co., TV Tower Kill, Avifaunal Club.

Yellow Warbler: latest, Sept. 21, Watonwan Co., TV Tower Kill, Avifaunal Club.

Magnolia Warbler: latest, Sept. 25, Minneapolis, R. B. Janssen.

Cape May Warbler: Sept. 20, Hennepin Co., Rachel Tryon; Sept. 29, Duluth, P B. Hofslund.

Black-throated Blue Warbler: Sept. 17, Fargo-Moorhead area, Mrs. Philip Vogel; Oct. 3, Pickwick, Winona Co., Paul-

ine Wershofen.

Myrtle Warbler: latest, Oct. 26, Osakis, Douglas Co., R. B. Janssen; Nov. 2, Ely, St. Louis Co., A. C. Rosenwinkel; Nov. 9, Ramsey Co., A. C Rosenwinkel. Black-throated Green Warbler: latest, Sept. 2, Washington Co., Jane Olyphant.

Blackburnian Warbler: latest, Sept. 21, Watonwan Co., TV Tower Kill, Avi-

faunal Club.

Bay-breasted Warbler: latest, Sept. 21, Watonwan Co., TV Tower Kill, Avifaunal Club.

Blackpoll Warbler: Sept. 7, Hennepin Co., Rachel Tryon.

Pine Warbler: Sept. 21, Watonwan Co.,

TV Tower Kill, Avifaunal Club.

Palm Warbler: latest, Oct. 13, Two Harbors, Lake Co., and Oct. 13, Duluth, St. Louis Co., both observations by Avifaunal Club.

Ovenbird: latest, Oct. 2, Minneapolis, R. B. Janssen.

Northern Waterthrush: latest, Sept. 25, Minneapolis, R. B. Janssen and Oct. 8, Minneapolis, Gloria Peleaux.

Kentucky Warbler: Aug. 19, Coon Rapids, Anoka Co., D. Pearson. See Notes of Interest, elsewhere in this issue. Connecticut Warbler: Aug. 17, Sand Lake, Lake Co., D. Pearson; Aug. 19, Anoka Co., D. Pearson; Aug. 24, Duluth, Avifaunal Club; Aug. 30, Wash-

ington Co, Jane Olyphant; Sept. 21, Watonwan Co., TV Tower Kill, Avifaunal Club.

Mourning Warbler: latest, Sept. 21, Wa-

tonwan Co., TV Tower Kill, Avifaunal Club.

Yellowthroat: latest, Oct. 5, Watonwan Co., Avifaunal Club.

Yellow-breasted Chat: Aug. 29, Fargo-Moorhead area, Mrs. Leslie Welter. Canada Warbler: latest, Sept. 21, Watonwan Co., TV Tower Kill, Avifaunal Club. Also reported on Aug. 19 at Glenwood, Pope Co., R. Grant.

American Redstart: latest, Sept. 29, Minneapolis, R. B. Janssen; Oct. 21, Fargo-Moorhead area, Mrs. Leslie Wel-

ter.

# BLACKBIRDS, ORIOLES AND TANAGER

Bobolink: latest, Sept. 21, Watonwan Co., TV Tower Kill, Avifaunal Club; Nov. 3, one adult male, still in breeding plumage, Cass Co., just east of Nimrod, R. L. Huber, exceptionally late.

Eastern Meadowlark: latest, Oct. 12, one singing, Scott Co., R. B. Janssen.

Yellow-headed Blackbird: latest, Nov 2, Swan Lake, Nicollet Co., two adult males in breeding plumage, R. L. Huber. Both this species and the Bobolink should normally resemble the dingy looking females of their respective species this late in the season.

Baltimore Oriole: latest, Sept. 21, Watonwan Co., TV Tower Kill, Avifaunal

Club.

Rusty Blackbird: first, Oct. 5, St. Peter, Nicollet Co., Avifaunal Club. Brewer's Blackbird: latest, Nov. 16, Hennepin Co., Avifaunal Club. Scarlet Tanager: Aug. 24, Duluth, one female, Avifaunal Club; latest, Sept. 21, Watonwan Co., TV Tower Kill, Avifaunal Club.

FRINGILLIDS: Noticeable sparrow movements took place in the state between Sept. 20 and 27, with the Whitethroats and juncos leading the way. Cardinal: Nov. 21, Frog Lake, Stevens Co., male seen by Al Hoslin; also reported in the Fargo-Moorhead area by 8 observers during the fall season, fide Elizabeth Anderson.

Rose-breasted Grosbeak: latest, Sept. 29, Traverse Co., Avifaunal Club; Oct. 2, Ramsey Co., A. C. Rosenwinkel. Indigo Bunting: latest Oct. 5, Goodhue and Winona Co.'s, R. B. Janssen. Dickcissel: latest, Sept. 1, Rock Co., Avifaunal Club.

Evening Grosbeak:

Fargo-Moorhead area, Nov. 5, fide Elizabeth Anderson.

Hubbard Co., Sept. 15, A. W. Peterson.

Wadena Co., Oct. 1, R. Oehlenschlager.

Washington Co., Nov. 16, Elizabeth Campbell.

Washington Co., Nov. 29, D. Honet-schlager.

Winona Co., Sept. 15, James Walz. Winona Co., Nov. 6, Walter Schmidt. Winona Co., Nov. 16, Isabelle Kukowki.

The extent of southward penetration is delineated by a line drawn approximately from the southeast corner of the state to the northwest corner. Pine Grosbeak: earliest, Sept. 22, Minneapolis, one banded, Gloria Peleaux; many reports in northern part of state; reported also in Fargo-Moorhead area on Nov. 16 fide Elizabeth Anderson and at Willmar, Kandiyohi Co., Oct. 15 by Irv Hanson fide Gloria Peleaux. Hoary Redpoll: Nov 18, Fargo-Moorhead area, with Common Redpolls, Elizabeth Anderson; Nov. 25, Ramsey Co., with Common Redpolls, A. C. Rosenwinkel.

Red Crossbill: Aug. 10, Itasca Park, Avifaunal Club; Oct. 13, Lake Co., Avifaunal Club; Oct. 30, Wadena Co., R. Oehlenschalger; Oct. 30, Cloquet, G. W. Gullion; Nov. 7, Winona Co., specimen found dead, Leo Brom; Nov. 9, Ramsey Co., A. C Rosenwinkel.

White-winged Crossbill: Oct. 3, Hibbing, Harriet Micensky; Oct. 26 thru Nov. 17, Duluth, P. B. Hofslund; Nov. 1, Wadena Co., R. Oehlenschlager; Nov. 9, Ramsey Co., A. C. Rosenwinkel. Rufous-sided Towhee: On Sept. 15, near Nimrod, Wadena Co., Richard Oehlenschlager saw what he felt was the Arctic subspecies, a rare migrant through the western part of our state. Latest, Oct. 2, Minneapolis, R. B. Janssen; Oct. 5, Fargo-Moorhead area, fide Elizabeth Anderson.

Lark Bunting: Sept. 1, Manley, Rock Co., Avifanual Club.

Savannah Sparrow: latest, Nov. 2, Swan Lake, Nicollet Co., many seen, Avifaunal Club. We believe these may be the first November records for the state.

LeConte's Sparrow: latest, Sept. 29, Becker-Mahnomen Co. line just south of Waubun, Avifaunal Club. Del Holdgrafer of Donnelly, Stevens Co. found a dead LeConte's Sparrow in his yard on Nov. 9, exceptionally late.

Vesper Sparrow: latest, Oct. 14, Washington Co., W. R. Pieper and Oct. 24, Cokato, Wright Co., Erma Christopher. Oregon Junco: Oct 6, Nimrod, Wadena Co., adult collected, R. Oehlenschlager; Oct. 12, Minneapolis, R. B. Janssen; Oct. 14, Washington Co., W. R. Pieper; Oct. 14, Hibbing, St. Louis Co., Harriet Micensky; Oct. 19, Fargo-Moorhead area, Mrs. Leslie Welter; Oct. 26, Nimrod, Wadena Co., adult male collected, R. Oehlenschlager; Nov. 2, Hennepin Co., R. B. Janssen; Nov. 16, Sibley Co., R. B. Janssen.

Tree Sparrow: earliest, Oct. 2, Hibbing, St. Louis Co., Harriet Micensky and Oct. 5, Whitewater State Park, Winona Co., R. B. Janssen.

Clay-colored Sparrow: latest, Oct. 5, Frontenac, Goodhue Co., R. B. Janssen. Field Sparrow: latest, Oct. 5, Whitewater State Park, Winona Co., R. B. Janssen; Nov. 16, Henderson, Sibley Co., exceptionally late, R. B. Janssen. Harris' Sparrow: earliest, Sept. 20,

Harris' Sparrow: earliest, Sept. 20, Shotley, Beltrami Co., Mabel Goranson and Sept. 25, Squaw Lake, Cass Co., Mrs. E. A. Schmid; latest, Nov. 9, Watonwan Co., Avifaunal Club; Nov. 21,

Minneapolis, Gloria Peleaux.

White-crowned Sparrow: earliest, Sept. 13, St. Louis Co., A. C. Rosenwinkel; Sept. 24, Shotley, Beltrami Co., Mabel Goranson; latest, Oct. 10, Traverse Co., R. Grant; Oct. 13, Fargo-Moorhead area, fide Elizabeth Anderson. One exceptionally late individual was banded on Dec. 1 in Washington Co. by Dean Honetschlager. The bird, an immature, remained in the area until Dec. 8,

Fox Sparrow: earliest, Sept. 21, Shotley, Beltrami Co., Mabel Goranson; latest, Nov. 29, Winona Co., R. L. Huber.

Lincoln's Sparrow: latest, Nov. 2, Swan Lake, Nicollet Co., several adults seen, R. L. Huber.

Swamp Sparrow: latest, Nov. 2 and Nov. 9, Swan Lake, Nicollet Co., Avifaunal Club.

Lapland Longspur: earliest, Sept. 14, Knife River, Lake Co., R. B. Janssen.

Smith's Longspur: Nov. 2, Triumph, Martin Co., one, in molt, with many Lapland Longspurs in a plowed field, R. L. Huber.

Snow Bunting: earliest, Oct. 3, Duluth, P. B. Hofslund.

SUMMARY:

Several species were reported that are seldom seen in Minnesota: Cinnamon Teal, Harlequin Duck, Harlan's Hawk, Ferruginous Hawk, Red-shafted Flicker, Mockingbird, Kentucky Warbler, Lark Bunting, and perhaps we might include the Arctic race of the Great Horned Owl.

Two new species were reported for the first time: Purple Gallinule (first Minnesota specimen) and Red Phala-

rope (reliable sight record).

Later-than-usual dates were secured for shorebirds, woodpeckers, flycatchers, swallows, thrushes, Water Pipit, Bobolink and some of the sparrows. Certain of these were undoubtedly late enough to establish new all-time late dates for the state. Perhaps this is due to the fact that the unseasonably warm weather:

a) provided open water and mud flats for shorebird feeding.

b) allowed sustained insect activity

for insect-eating birds.

c) probably most important, made it pleasurable for birders to remain afield much later than usual in the fall, thus securing these very interesting records. 3121 Georgia Ave. So., Minneapolis 26, Minnsota.

# Hawk-Owls in St. Louis County, Minnesota

by Forest V. Strnad

On Friday, July 26, 1963, I drove to Duluth via St. Louis County road #7. On July 22, the Reverend James Towler of Eveleth had told me that he regularly saw Hawk-Owls as he drove to Meadowlands, Minnesota for his Sunday morning worship services. My taking of highway #7 was to see if I could see any Hawk-Owls.

Two miles south of Kelsey, St. Louis County, Kelsey Township, I spotted an owl on the top of a telephone pole on the east side of the road. I let the car coast a ways so as not to scare the owl. Imagine my surprise when I stepped out of the car and heard a soft whistle, not unlike the "weep"

of the Great Crested Flycatcher and there on a telephone pole closer to me sat another owl. Both were Hawk-Owls. To the south of the car I located another Hawk-Owl on a power line pole and a fourth on a telephone pole on the east side of the road and some 250 yards north of the car. I watched these owls for about 10 minutes. While I was doing so I saw the nearest one to me stoop into the marsh grass, but as it came up behind a tree I did not see what it might have caught.

The owl immediately to the north of me flapped leisurely across the road to the west and started to alight on the power line, but an attacking male Red-





winged Blackbird caused it to change its course and it flew on over the railroad tracks to a telegraph line pole.

I walked north about 150 yards to look at the fourth owl and it flew south and disappeared. A car approached from the north and the driver, Mr.

George Shindler stopped to ask if I wanted a ride. I told him I was looking at a rare Hawk-Owl. I showed him a picture of it in Peterson's, "A Field Guide to the Birds," and he told me that he had seen many of these owls during the past winter. He assured



me that I would find some near his place two miles north and west of where we were.

As the time was getting late for my appointment I had to leave and drive on to Duluth.

In looking at the four owls two seemed to have a grayer plumage, while two had a brownish cast, to their back.

On Monday, July 29 I returned to this area to see if the owls were still there and if so to give more time to observation of their movements. As I approached the area from the north at about 9:15 a.m., I scanned the poles for the owls. I located one about one-half mile north of where I had seen them on July 26 and slowed the car to drop a Bal Chatri trap along side the road. I had the trap baited with a sparrow. I drove an another half mile and stopped the car at a turn-out place on the east side of the road.

I waited for about five minutes at this location while I scanned the telephone poles and lines on the east side of the road, the power poles and line on the west side of the road and the telegraph lines and poles farther west beyond the railroad tracks. Not seeing any more owls I decided to drive back past the trap to see if I could locate more of the owls in the grove of popple, paper birch and scattered conifer trees on the east side of the road. I was able to locate two more owls sitting in popple trees near the first owl. They were sitting on branches about 7 feet from the ground. One flew across the road to the west and disappeared into the trees. The other flew in to the top of a larch tree west of the railroad tracks. The tree was about 25 feet in height. This bird stayed there from 9:25 - 9:27 and then flew back east across the railroad tracks and the roadway and landed in the grove of trees where I first saw it. A third owl flew from the east side of the road and landed on a post on the west side of the highway which marked a culvert, and then flew to a telegraph line post.

9:35 a.m.—Number 2 Hawk-Owl flew from the woods on the west beyond the railroad tracks to the owl on telegraph line pole and then on to the next pole south. A fourth owl flew out of the popple trees on east side of the road and alighted on another telegraph pole to the south of #2 hawk-owl.

9:37 a.m.—All four owls in view. One

from east side of the road flew back into the larch tree.

9:39 a.m.—I spotted a fifth Hawk-Owl which had flown, probably from the east grove, to alight on the top power line on the west side of the road about four poles south of where I sat in the car. As I watched it it flew east, back across the road into the grove of trees. The Redwinged Blackbirds and other small birds in the area did not seem afraid of these owls as they continued to fly about the area.

9:44 a.m.—One of the owls on telegraph line flew up into a larch tree while I was writing down notes. It now flew from this larch tree and started to alight in another larch tree about 100 feet to the south, but then went south into a grove of mixed popple, paper birch and scattered conifer trees.

9:45 a.m.—The owl on the telephone pole on east side of the road had now flown to the top of the power line pole on west side of the road and was about 225 yards from me.

9:51 a.m.—Three owls are now in view. One on telegraph line pole; one on the power line pole south of the owl on power line. The one on the power line flew to a telephone pole on east side of road. Both of these owls are within 50 yards of the Bal Chatri trap near the south end of the grove of trees on east side of the road.

9:57 a.m.—The Hawk-Owl on telephone pole flew over the trap and kept on going until it landed on a telegraph line pole south of the other two owls. Another owl, probably one which flew into the grove on east side of the road at 9:27, flew up out of east ditch where it had stooped for something and alighted on telephone pole. Four owls are now in sight.

10:01 a.m.—One owl on telegraph pole; the other owl on telegraph pole flew to power line pole, four poles south of me.

10:02 a.m.—The owl on telegraph pole disappeared while I wrote down the previous note. Only one owl was in sight, the one on the power line.

10:03 a.m.—Two owls back on telegraph line poles.

10:04 a.m.—The owls are off the telegraph line poles and I saw four owls flying toward a grove of trees south of me and west across the railroad tracks. Two came east across the road. One alighted in a tree and one on a telephone line pole. Two disappeared in trees on west side of road beyond the tracks, about five poles distance from me, or some 400 yards away.

10:05 a.m.—I drove south on highway #7 to a turn-off. I now saw one owl on telephone line pole on east side of the road by the trap.

10:11 a.m.—I saw an owl fly into the grove of trees on east side of the road.

10:18 a.m.—I drove up to the grove to pick up the trap and to see if any owls are in the trees. I saw owls in the trees sitting on branches and one cn a stub of a dead popple. One sat near the trunk of a four inch paper birch, the other three on small branches of popple trees. The owls were perched from 7-10 feet from the ground and not more than sixty feet from me.

10:22 a.m.—I continued to search the grove with my binoculars, 7 x 35mm, and discovered a sixth owl on another stub of a tree not more than seven feet from the ground.

10:24 a.m.-A man on a mower appreached me from the north and I had to dash from the car to pick up my trap which I had forgotten on the roadway. The owls dispersed as I got out of the car. Mr. Wesley McKay, the driver of the tractor, said he lived at Kelsey and he told me that he saw many Hawk-Owls this past winter. I shared by binoculars with him and showed him a picture of the Hawk-Owl from Peterson's. He assured me that the Hawk-Owl is the kind he saw last winter. McKay was interested in these owls and that they were rare. I told him I hoped no one would come by and kill them. He told me that all hawks and owls were protected now, "weren't they?" I assured him all were except the Great Horned Owl and that it should not be shot maliciously. He said there were a number of Great Horned Owls along the river too.

10:41 a.m.—Mr. McKay drove on and I looked around the area for another minute or so to see if I could locate the owls again. Two were in trees about 35 yards east of the road, another one was north of me about two telephone poles distance and one remained close to the road. The other two had disappeared into the grove of trees. As close as these owls stayed to the grove on the east side of the road I would assume that this might be the area in which a nest had been located.

On August 11, Carl and Ted Johnson and John Feehan of Rochester and Orwin A. Rustad of Faribault drove up to Kelsey, where I met them for a Hawk-Owl banding project. They arrived about 5:45 p.m. D.S.T. and immediately we saw a Hawk-Owl about one-half mile south of the area where I saw the owls on July 26. Two Bal Chatri traps were placed along side the railroad tracks. One of the traps was dome-shaped and baited with a live mouse; the other was quonsetshaped and baited with a live Rock Dove. The Hawk-Owl was sitting in a spruce tree about 200 feet from the traps.

They then drove up to where I was waiting for them, and since I had not seen them stop and set out the traps they told me what they had done. We started walking back toward the traps on the railroad right-of-way taking with us three more quonset-type Bal Chatri traps baited with live Rock Doves. As we drew near the traps we could see an owl fluttering over the trap baited with the live mouse. Its leg was caught in one of the nooses. We hurried forward to remove our first Hawk-Owl of the expedition. I was chosen to band this first bird. While the U.S. Fish and Wildlife Services' new manual on bird banding recommends a #5 band we found that a 7A band fit better over all the feathers on the tarsus. The band number was 627-70899.

While we had the bird in the hand

we carefully read through A. C. Bent's article on Hawk-Owl plumage, from Part 2 of his book on Life Histories of North American Birds of Prey and T. S. Robert's, A Manual for the Identification of the Birds of Minnesota and Neighboring States. We found the latter book more detailed in description and from it determined that the bird we had in our hands was an adult.

The day was rainy and we sought shelter in a ten camp about one-half mile west of the Kelsey Post Office near the community dump. Six nets were erected that night and an additional twelve the next morning.

Upon checking the Bal Chatri traps the next morning all were found to be empty. Even though we carefully checked the trees and poles in the area no more live Hawk-Owls were seen. John Feehan and I checked the road-side and found a dead Hawk-Owl on the east side, close to the north edge of the area where the birds had been observed on the two previous occasions. The bird, apparently a road-kill, had been dead for about a week and was so badly decomposed that it was not collected.

Many pictures of the live owl were taken by Ted Johnson. (See photos accompanying this article). When released on Monday morning about 11:00 a.m. it flew up into a poplar tree in the woods south of our camp. About 1:00 p.m., as we were breaking camp because of lack of activity with the nets, a Hawk-Owl flew over us and alighted on a dead branch of a tree some fifty vards northeast of us, and about twenty-five feet from the ground. Traps were hurriedly placed out to see if we take this owl with one of them. The owl flew away to the northwest and that was the last we saw of the Hawk-Owls.

The breeding range of the Hawk-Owl is from Alaska south to the northern part of the northern tier of States of Montana, Idaho, Minnesota and Michigan, including Isle Royal. For Minnesota he says, "probably northern Minnesota (Cook County, Koochiching County and Roseau County).

With these six Hawk-Owls in such close proximity to each other it would seem to indicate a nesting pair and four young of the year. While none of the birds were small enough to indicate young of the year, when first observed, it is unlikely that six birds of this species would be so close together at this time of the year unless they were a family group. 21 SW Third Street,

Chisholm, Minnesota.

Editor's Note: Dr. Roberts in the "Birds of Minnesota' does not consider the Hawk-Owl as even a rare breeder in Minnesota. He does however list several summer dates. The above record would indicate that the Hawk-Owl is a rare breeder in northern Minnesota especially after heavy invasion years as was the winter of 1962-63.

## THE CANADIAN LAKEHEAD

by A. E. Allin

The autumn of 1963 at the Canadian Lakehead was one of the warmest and driest on record. The mean temperature for September of 53.5° was 0.7° above normal; the precipitation of 2.63" was well below the average of 3.32". On September 12, the temperature fell to 31° for the first time since May 25 giving a frost-free period of 110 days compared with an average of 101 days. The mean for October was an amazing 50.9°, the mildest October on record and 8:3° above average. Rainfall totalled only .27" and there was no snow. During these two months, there was frost during 4 nights in September and 7 in October. The minimal low during the period was 28° on both September 13 and October 13. A maximum high of 76° was reached on October 24. November continued the mild trend with a mean temperature of 32.9° almost 6° above the 30-year average of 27°. The precipitation of 1.44" was well below the average of 2.58".

Traces of snow were present north of the Lakehead on November 2 but none fell at the Lakehead until November 23. The first severe storm of the winter was on November 28 with the temperature plumetting to two degrees above zero two days later. A little ice was present on pools and marshes on November 2, and on November 23 the quiet stretches of the stream were frozen. This was in striking contrast to many previous years when Whitefish Lake was frozen over during the last few days of October.

Although the first frost was reported at the airport on September 12, frost cut Dahlias and Cucumbers outside the cities on September 4. In Fort William, Nasturtiums still bloomed on October 31. As late as November 10, as we drove to Grand Marais, Common Yarrow, Sweet White Clover, Toadflax and May-weed bloomed along the highway, and in Grand Marias. Petunias, Clematis and even Roses were still flowering. However, the Autumn Willow was the most striking feature of the low areas, with its fluffy seeds forming foamy masses of white. Although leaves commenced to fall in mid-September, the forests were still ablaze at the end of the month with the brilliant colors, of Red and Sugar Maples, Pin and Choke Cherries, Aspen Poplar and White Birch. Black Ash and Balsam Poplars had lost their leaves much earlier but Willows and Common Lilacs retained theirs well into November.

The crop of Mountain Ash berries was moderately heavy along the city streets but these were soon eaten by Starlings and Robins. There was practically no fruit on the two species of Mountain Ash throughout the forests along Lake Superior. In the Cities there is a very heavy crop of fruit on the Flowering Crabapples to provide some food for wintering birds. The cone crop on the Jackpines is generally heavy as it is on Black Spruce in many areas. As usual there is a very heavy crop of keys on the Manitoba Maples.

Butterflies were less common than usual except for Mourning Cloaks which were very abundant about the Lakehead and in Cook County during the first half of September. We saw three Garter Snakes on October 14, about as late as we can expect to see them. On November 4, a Mink crossed a busy Fort William thoroughfare in front of our car. J. Lowcock watched three Otters disport themselves about his decoys at Whitefish Lake. Red Foxes are very abundant; one was recently seen late at night trotting down the street near my laboratory. Another actually enters a building at the Seaway Terminal and is fed by night workers. In 1962, Ontario licensed 46,-000 moose hunters, a 30-fold increase since 1951 when an open season was declared after a brief period of protection. On September 10, commerfishermen took a 10 pound 5 ounce Brown Trout from Lake Superior. A few smaller ones were taken subsequently. These fish, or their ancestors, must have migrated from Minnesota as they have never been introduced into the Canadian waters of Lake Superior. Fishermen have been disappointed in the failure of Pink Salmon to run north shore streams as had been expected this fall.

The universally mild fine days of September and October were not conducive to good birding. Most species drifted through the area without any outstanding waves of migrants. From the volume of notes descending from the skies, there must have been a mass migration over the Lakehead cities on the nights of September 9 and 17. As usual, the hawk migration was a negligible feature. Ducks must have gradually drifted through the district. The movement of warblers, vireos and thrushes was very poor. The fall magration of the sparrows, however, was most satisfactory and that of the shore birds was fairly good. Several species lingered late into the fall, some establishing record dates of late departure. Among these we should mention Blue-winged Teal, Pintails, American Golden Plover, Ruby-throated Hummingbird, and Scarlet Tanagers.

Loons and Grebes: Common Loons

had an unsuccessful breeding season locally in 1963. In the last *Flicker* I attributed this to the high water levels following the heavy rainfalls of early June. I now learn that few young were produced in Eastern Ontario where the above explanation is not applicable. We saw two Horned Grebes on Cloud Lake on October 27, a late date locally.

Swans, Geese, and Ducles: A few Canada Geese were shot in mid-September. Nine fed at Chippewa Park from October 22 to November 17. Large flocks of geese passed overhead on October 27, too high to identify as to species. There did not appear to be a mass movement over a short period as frequently occurs.

Puddle ducks were present in large numbers during late summer and early fall. Due to the unusually mild weather, and a plentiful supply of food, Blue-winged Teal were still present on October 20 and Pintails were still present on November 5. Probably 1000 Black Ducks and Mallards fed on the waste grain in the harbor on November 5. A few hundred were still there on November 21 but the majority of these soon left the district. Four Wood Ducks were seen on Sandstone Lake on September 14.

The movement of ducks at White-fish Lake on September 29 was probably one of Ring-necked Ducks as we expect them at that period. If so, they lingered only a few days. We recognized a lone Redhead there on October 12 as well as a few Buffleheads. The flight of scaup was most disappointing. An Oldsquaw shot on Whitefish Lake was probably our third record from that lake. This species and the scoters, rarely visit our inland lakes, or bays off Lake Superior. Two Hooded Mergansers were noted at the harbor on November 2.

Vultures, Eagles, and Hawks: Bald Eagles were very scarce during 1963 and no successful nestings were reported. Very few hawks were seen on migration. We saw a Goshawk over Lake Helen on October 22 and one north of Port Arthur on November 3. The last Sharp-shinned Hawk was re-

ported on September 21. Several Sparrow Hawks were seen on the same date. We identified a Red-tailed Hawk on October 13. We failed to see any Rough-legged Hawks at the Lakehead. Mrs. Rosser reports seeing a Pigeon Hawk near Vicker's Park on two occasions in November.

Grouse to Coots: Many broods of Ruffed Grouse were reported throughout the summer. We saw one covey of 11 young birds on September 8. However, they proved very scarce during autumn. We actually saw only 3 grouse while travelling many hundreds of miles. They have steadily declined in numbers since their last peak in 1955 when we saw 75 grouse during the hunting season. Spruce and Sharptailed Grouse are also very scarce. Mrs. Hogarth recently reported the only covey of Gray Partridge seen this fall. It is amazing how this species persists, vet has scarcely increased in numbers since it was introduced in the mid-thirties. In contrast to other water-fowl, American Coots were very common all fall. Many were still present at Whitefish Lake and in the local harbor until at least November

Shore-birds: Following a movement from August 7 to 10, of Killdeers, Lesser Yellowlegs, and White-rumped Sandpipers, migration of shore-birds was slow until mid-September. We saw 2 Knots at Hurkett on September 2. Two American Golden Plovers were seen in Paipoonge Township on September 14. On September 19, Mr. Consul reported 40 American Golden Plovers, 20 Black-bellied Plovers, and 8 Pectoral Sandpipers near the Sanatorium. Later a mixed flock of these three species frequented a large field being denuded of its sod. Undoubtedly this process exposed myriads of insects worms and other invertebrates. This flock built up to a maximum of 25 Pectoral Sandpipers and 150 plovers on October 20. These figures however did not represent the true number of plovers in the district. With the total number of birds remaining relatively steady, there were constant violent fluctuations in the percentages of the species. A single Ruddy Turnstone was present on October 20. A few American Golden Plovers remained until October 26 and 2 Black-bellied Plovers until October 27. At the time, we wondered why the birds left when they did, as weather conditions did not appear markedly changed. In retrospect, it was found that the mean temperature of 42° for the last 5 days of October was a sharp drop from the mean 56° for the previous 5 days. Vera Murie was surprised to see a American Golden Plover along Chippewa Park beach, on November 24. This is a record late date.

Gulls and Terns: For many months, Herring Gulls have been a problem at the local airport. The near-by garbage disposal dump was closed in mid-September and subsequently the difficulties appear alleviated. The gulls now forage in small numbers over a widespread area. A Herring Gull, perched on a dead stub in the forest near Beardmore on October 22, seemed out of its element; it was still present as we re-traced our route hours later. Telephone poles along Highway 61, are favored perches for Herring Gulls as they watch for victims of speeding cars. J. Lowcock reported 2 dozen Bonaparte's Gulls on Whitefish Lake on October 26, a record late date for this uncommon migrant.

Doves to Kingfishers: Mourning Doves were rare visitors at the Lakehead two decades ago. Today several are seen every summer; sometimes they are not uncommon. We have two breeding records in Dr. Hogarth's Tree Farm in Paipoonge Township. We suspected these birds had come into our district from Northeastern Minnesota where we now see them more frequently than we did a few years ago. I do not believe Minnesota birds have been critically studied. We wondered if our birds actually were carolinensis. Although doves taken throughout Northern Ontario proved to be this form, all had been taken after the breeding season and these post-breeding strays might differ from the breeding birds. However, found dead near Pigeon River in May, 1963, was identified as being the eastern race.

An immature Black-billed Cuckoo was found injured on September 20, a late date. Once again there is a major ingress of Snowy Owls. The first was reported on November 1 and seven were seen in the next week. Many have been reported subsequently. One came down the chimney of Port Arthur Collegiate as did 6 a year ago. They appear to get into this predicament as they attempt to catch Rock Doves sitting on the chimney! Another attacked a Port Arthur man as he changed a tire. It secured itself to his back and he was able to capture it while sustaining only a few scratches. Two Great Horned Owls have been seen, one of which was perched on a Hydro pole in downtown Fort William. The Allins saw a Shorteared owl on October 12 and another on November 24, another late record. Although the main migration of Common Nighthawks was completed by the third week of August, Dorothy Allin saw one on September 5 and T. Perrons saw another on September 8. Possibly the most amazing record of the season was the Ruby-throated Hummingbird seen by Mrs. Geo. Blake in Fort William on October 12.

Woodpeckers, Flycatchers and Horned Larks: An immature Red-headed Woodpecker was seen on September 7. This is one of our rare summer residents. Yellow-shafted Flickers were migrating on September 21. T Perrons saw a Black-backed Three-toed Woodpecker at Shebandowan on August 31. The Allins saw 4 Eastern Kingbirds on September 8 about as late as this species can be expected at the Canadian Lakehead. Both Hoyt's and Northern Horned Larks were identified, mixed in a flock of Lapland Longspurs we studied on September 28.

Jays to Wrens: Gray Jays are commoner than usual. Blue Jays are very common; up to 14 at a time feed at Mrs. Atkinson's chicken-pen at Dorion Fish Hatchery. Common Crows were not as common this fall as usual. We did see one very large flock on September 14. Common Ravens do not seem as abundant as usual but K. Denis saw 28 in one flock near English River on November 27. There has

been no noticeable movement of either species of chickadees. The uncommon White-breasted Nuthatch has appeared at two widely separated feeders. Red-breasted Nuthatches were common in late August and September.

Mimids and Thrushes: Robins were very abundant throughout the period. Flocks visited city lawns as early as September 5. On one occasion they fed on the usually neglected fruit of our Cotoneasters. A flock of 200 was seen on October 6 and many lingered until mid-November. Recently observers in South Dakota have become interested very pale Robins which move through their area. The late Norman Criddle, well-known naturalist of Manitoba, recognized a movement of very dark Robins which moved through Southern Manitoba after local birds were established on their breeding territories. We have frequently noted a similar movement at the Lakehead. Mrs. R. M. Beckett spent many summers at Port Churchill and felt the Robins of that region were darker than our local birds. However, W. E. Godfrey, Curator of Ornithology, National Museum of Canada, informs me they have a very representative collection of Robins from all parts of the north and there is no suggestion of undescribed race. Eastern Bluebirds were present at Silver Islet during the summer. We saw two at Kakabeka Falls and one in Neebing Township on September 7. The fall migration of the four northern thrushes was disappointing.

Kinglets and Starlings: Kinglets were very scarce during the fall season. Water Pipits were seen on September 28, and on October 17 a few fed with the mixed flock of shore-birds described above. Cedar Waxwings, very common all summer, seem to have migrated early. We saw a flock of 15 Bohemian Waxwings on October 21; Mrs. Rosser reported 12 in Fort William on November 19. Individual Northern Shrikes were seen on October 17 and November 23.

Vireos and Warblers: There was a very poor migration of these birds. Although warblers began to move about in late July there was little activity in August. There was a minor movement on September 4 and 5. The air was filled with their calls on the nights of September 9 and 17. Myrtles, Palms, and Tennessee Warblers were present in small numbers throughout September with a few Myrtle Warblers remaining until mid-October.

Bobolinks to Tanagers: Common Grackles were very common in September and the first half of October. Rusty Blackbirds appeared on September 22 and remained to mid-October. A Brewer's Blackbird was present at Mrs. Cryer's feeder in mid-November. Two Scarlet Tanagers fed on Mountain Ash berries in Fort William on September 26 and we saw one feeding in the same tree on September 26. These are our first fall records for this rare summer resident.

Fringillidae: A Cardinal was seen by T. Perrons 30 miles west of Fort William on October 21. This is the fifth sight record for this species locally. One was observed closely several years ago by many observers during the weeks it visited a local feeder. None has been collected or photographed. Evening Grosbeaks were first recorded on September 8 when we saw ten including young. A flock has been present in Fort William since mid-September. Pine Grosbeaks are very scarce. We saw two in Fort William on November 12 and one subsequently. Very few have been seen in the surrounding forests. We have seen no Common Redpolls at the Lakehead but watched a small flock on November 10 near Nannabijou Lodge in Cook County. Three Hoary Redpolls fed in an Alder near Nolalu on November 17. Pine Siskins have not been reported since the mass migration of mid-August. Red Crossbills fed on Mrs. Knowles' Sunflowers on August 28, and re-appeared in late October. Mrs. Brown saw 2 on September 9, and Mrs. Rosser reported more in early November.

One of the brightest features of the period was the good migration of sparrows. Slate-colored Juncos were scarce last spring. This fall they appeared about feeders in early September. For the next two months they were very abundant, particularly during the first week of October when great flocks were present throughout the area. A few lingered at feeders into November. Tree Sparrows appeared on October 6 and a few were present all month. Mr. Consul reported Harris' Sparrows, White-crowned, and White-throated Sparrows at the Sanatorium on September 8. They were well distributed southwest of Fort William for the following two weeks. A Fox Sparrow joined its cousins at the Sanatorium on October 4. Song Sparrows were frequently seen on September 29. I am afraid we ordinarily neglect to keep notes on these and other sparrows which are common summer residents. We discovered a flock of Lapland Longspurs feeding at the Seaway Terminal on September 28 accompanied by Water Pipits, Horned Larks, and Palm Warblers. Many small flocks of Snow Buntings were present from October 22 until early November. Few have been seen since.-Regional Laboratory, Ontario Department of Health, Fort William, Ontario.

## NOTES OF INTEREST

RED-SHAFTED FLICKER SEEN IN NOBLES COUNTY—While driving on Highway 16 on October 7, 1963, I spotted a Red-shafted Flicker as it flew across the road at a point one-halm mile east of the city limits of Worthington, Nobles County, Minnesota.

The reddish under-wings and tail were very obvious and there was no doubt as to the identity of the bird. There were numerous Yellow-shafted Flickers in view at the same time and it was possible to compare the differences in colors of the two species.

The bird paused briefly on a telephone pole and then proceeded out of sight. It was not possible to see the red cheek patch during the brief sighting.—

Glen Smart, Resident Biologist, Round Lake Waterfowl Station, Round Lake, Minnesota.

GOLDEN EAGLE AT NERSTRAND WOODS.—On October 19, 1963 while watching birds at the Nerstrand Woods, Rice County, we were surprised to see an eagle circling overhead, almost directly above us, at a level of approximately twice the height of the trees. The markings identified it as a Golden Eagle in immature plumage. The tail was white both above and below except for a broad band of blackish-brown at the tip. The rest of the bird was all very dark brown except for a small whitish spot in each wing at the base of the primaries, visible from both sides of the wing, and in addition a second small whitish patch on the upper surface of each wing. Also, we were surprised to note that even in this immature plumage, there was a definite tinge o'yellow in the feathers of the neck and the side of the head. Alden, Larry and Edis Risser, Stewartville, Minnesota

KENTUCKY WARBLER SEEN IN HENNEPIN COUNTY—On August 19, 1963, while birding below the Coon Rapids Dam on the Mississippi River, I was amazed to see so much migratory activity evident this early in the season. Vireos and warblers, however, seemed to be the sole factor in this migration. One Philadelphia Vireo was present among the more common Red-eyed Vireos. Tennessee, Parula, Connecticut, Myrtle and Nashville Warblers and Northern Waterthrushes were the most common warblers. It was while watching, what seemed to be the main spurt of these migrants thru the area, I was pleased to find a male Kentucky Warbler. I recognized it at once by it habit of walking through the undergrowth, keeping in the lowest branches of the thick shrubs and by its unmistakeable black patches on either side of the face. These patches were made duller by the gray feather tips acquired in fall and accentuated by the yellow spectacles. All these characters had become familiar to me when I had previously viewed the bird in southern Texas. David Pearson, Pacific Lutheran University, Tacoma, Washington.

## **BOOK REVIEWS**

BIRDS OF WISCONSIN, by Owen J. Gromme. 220 pages, 105 full color plates, The University of Wisconsin Press, 430 Sterling Court, Madison, Wisconsin 1963. \$22.50.

At first glance the Birds of Wisconsin appears to be another monumental work on the birds of a state. However on closer inspection of the very short text and the 105 color plates one is left with a very disappointed feeling. It was the hope of this reviewer that this new work would give a clear, concise picture of the known ranges and distribution patterns of Wisconsin birds. This was not the case in this reviewer's opinion. Accompanying each of the 89 plates, illustrating the 328 species, are maps showing by color the summer, winter and through the year distribution of the species. Migratory species are indicated by an arrow through the state. As the author states, "areas of occurrence had to be highly generalized and technical problems precluded the use of graduated shades to indicate degrees of population density." One wonders if so small a map has any value except for a small minority of the birds. Along with each map is a date line and statement concerning the occurrence and relative abundance of the species. Again these statements are woefully inadequate if one wishes to gain more than cursory knowledge of the distribution pattern. The date lines do explain adequately the season of occurrence for each species.

It is difficult for one not trained as an art critic to pass judgment on 20 years of work by an artist of ability. I will make no attempt to do so. However the utilitarian value of these plates for use in identification by the amateur or professional birdwatcher is small indeed. With the advent of the Peterson Field Guide series and the

many other popular books containing plates for identification purposes, the publication of a work illustrating 328 species mainly in very typical spring or fall plumages, adds little to our knowledge of bird life.

It is my opinion that a book of this sort, containing plates, would be far more valuable if it contained a few plates illustrating the more unusual plumages which are so often seen in the field at different times of the year. This is what the birdwatcher needs, not more of the same plumages which he has seen so many times in so many other works.

Some of the plates are misleading, for example, plate 51 illustrating the Olive-sided Flycatcher, shows a very prominent eye-ring on a brownish bird. The Swallow-tailed Kite on plate 17 is drab looking and out of proportion. The two species of cuckoo on plate 41 look as if they had been taken from Baird, Brewer and Ridgeway in the late 1880's. The Gray Jay on plate 56 is illustrated as a drab brownish bird, not the beautiful grayish and white tones so evident in nature. The same could be said for the Tufted Titmouse on plate 58. Plate 61 illustrates the male and female Robin as having the same plumage. Birdwatchers can in most cases tell a male from a female in the field. The 5 species of thrushes illustrated on plate 62 are dull and bear only slight resemblance to the actual birds as seen in the field. The plates of the warblers (66 thru 72) are quite disappointing. The artist has shown them in such dark and somewhat peculiar backgrounds that the natural brilliance of these beautiful species is lost. Plate 74 illustrates the male Bobolink as a rather washed out. drab bird. The female, fall and winter plumage is shown as a dull gray bird where actually it is a distinctive yellowish looking bird. This plumage demands accuracy in coloration when being illustrated as it is a plumage most often confused with other birds. The coloration of the two male crossbills on plate 83 is entirely in error.

On several of the plates the relative size of the birds is very misleading. For example on plate 3 the White Pelican is shown as a slightly smaller bird than the Double-crested Cormorant even though both birds are in the same perspective. The Black and Least Tern appear as small as hummingbirds when compared with the Caspian Tern. Scales of relative size are given but these do little to alleviate the wrong imprssion gained from the plates.

On the plus side plate 5 showing the immature plumage of the Glossy Ibis is most useful. The plate of the Turkey (plate 24) is beautifully done and the owl plates, 42 to 44, are very good. Plate 89 contains the seldom illustrated Cattle Egret. Plates 49, 64 and 88 are well done and the sharpness of reproduction make them very useful. The 16 plates showing "Birds in action and in habitat" form a beautiful group of illustrations and relieve some of the disappointment found throughout the book.

The author states that a second volume containing text is expected. The original plan formulated called for one volume containing text and plates. One wonders if the original plan shouldn't have been followed. A smaller less expensive book containing more text, with somewhat more detailed comments on distrubution and occurrence, fewer plates, and these fewer plates illustrating birds as suggested above, all this contained in one volume would have made a greater contribution to the ornithology of Wisconsin.

Today there is an abundance of ornithological literature aimed at the amateur birdwatcher. State works such as the "Birds of Wisconsin" give the competent amateur a place to contribute his findings and a ready and most needed reference to the birds of his area. These works enable him to find out what is known about the birds of his area but more important he can then contribute additional information, through his own observations, to expand this knowledge. Any work that attempts to put the main emphasis on illustrations, which are so readily available in many other sources, has lost sight of the main purpose of that work. Editor.

THE BIRDS. By Roger Tory Peterson and The Editors of Life. Twelfth in the Life Nature Library series.

Published by Time Inc., New York. 192 pp. Illustrated (64 pp. in full color). Price \$3.95 Available on order from Time Inc. Book Division, 540 North Michigan Avenue, Chicago 11, Illinois.

What manner of creatures are birds? Certainly, of all the higher forms of life, the vertebrates, or backbone animals, they are the most beautiful, most melodious, most admired, most studied and most defended. They far outnumber all other vertebrates except fishes and can be found virtually everywhere in the world, from the edges of the polar icecap and the highest Himalayan and Andean slopes to the roughest seas, the darkest jungles, the most barren deserts and the most crowded cities....

Thus Roger Tory Peterson, bestknown ornithologist in the world, begins his story of The Birds, twelfth volume in the Life Nature Library series.

"Birds have helped men for thousands of years, from the geese whose warning cries saved Rome to the canaries that were used to warn coal miners of methane gas leakage," writes Dean Amadon, Lamont Curator of Birds and Chairman of the Department of Ornithology at The American Museum of Natural History, in his introduction to the new 192-page (64 in full color) book.

"From research currently under way, there is some reason to believe that birds may continue to provide this kind of lifesaving service by warning us that doses of chemicals and radioactive particles that we eat, drink, breathe and absorb day after day may be reaching dangerous levels," he notes. "Truly, birds touch us in unexpected places. They are far more to us than ducks and pheasants to be shot, or chickadees and cardinals to brighten a suburban winter.

"Being a gifted painter of birds, and in a sense the creator of the modern system of field identification of birds Roger Peterson should not be expected to do other things. And yet he is an accomplished photographer... I recommend to the reader that he turn to the picture credits of this book to find examples of Roger's skill with the camera. Here is a man who can do everything, including write. Small wonder that the editors of Life were delighted to have him as the author of this fine volume."

Chapters included in The Birds are: "From Archaeopteryx to Sparrow," "What It Takes to Fly," "Birds as Food Gatherers," "How Many Birds," "The Riddle of Migration," "How Birds Communicate," "From Egg to Adult" and "Toward a Balance with Man." The appendix includes a bibliography.

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Sheridan C. Flaherty has been Municiple Judge in the city of Morris for a good number of years. And he has undoubtedly, in his many court proceedings dealt with many a rare bird—or birds that couldn't migrate in a straight and narrow path. But his judicial virtues have gone well beyond the legal strains of City Hall.

At his home, he has the most elaborate feeding station for songbirds in Stevens County. He has a 6' by 8' glass wall in the back of his home where



## JUDGE FLAHERTY'S FEATHERED FOLKWAY

by Ken Haag

he can peer out and hold court with a feathery docket the year around. Judge Flaherty has happily convicted many Hairy and Downy Woodpeckers of petty larcency at his suet box. He has sentenced numerous nuthatches to days of hard labor at his peanut bar. And he has served bird seed summons on such dignitaries as Golden-crowned Kinglets, Black-capped Chickadees, and Red-breasted Nuthatches. He has found guilty such winter transients as redpolls, Bohemian Waxwings, and Pine Grosbeaks of grand larceny in his berry laden shrubs and seed thickets ... and to his delight.

The mutual interest in birds that is shared by Sheridan and his attractive wife Marge, is reflected in the decor in their home. Figurines of various birds adorn the living and dining rooms of their home.

Sheridans richest experience in bird watching as he tells it, concerns the "Legend of the Crossbill," the bird which is said to have pried at the nails that pierced the hands of Christ on the cross. The legend contends that as a token of the moment the crossbill was stained with blood while trying to free the Savior.

For Sheridan the irony of this le-



gend was borne out when a crossbill visited his feeder on Good Friday. Judge Flaherty had to semi-retire from his active practice as Attorney and Municipal Judge because of ill health but his days of cross examining any feathered friends arranged before him still wane on. He may hold an Orchard Oriole on a charge of vagrancy...or release a White-breasted Nuthatch on peanut butter bail...regardless, he sustains these defendants of the wild with judicial pride!

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