The Flicker

VOLUME 31 MARCH 1959 NUMBER 1

PUBLISHED QUARTERLY BY
THE MINNESOTA ORNITHOLOGISTS' UNION
PERMANENT ADDRESS
MUSEUM OF NATURAL HISTORY
UNIVERSITY OF MINNESOTA
MINNEAPOLIS, 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.

President — Dana Struthers, Box 356, Route 5, Shady Wood Road, Wayzata, Minnesota

Vice President — Douglas Campbell, 3005 W. 54th Street, Minneapolis, Minnesota

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Associate Editors — Dwain W. Warner, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota, William H. Marshall, Division of Entomology and Economic Zoology, University of Minnesota, St. Paul, Minnesota, and Rev. Forrest V. Strnad, Kasson, Minnesota

THE COVER

RUFFED GROUSE DRUMMING by Harvey Gunderson

THE PRESIDENT'S PAGE

As we start out this new year, there is much to be considered from the viewpoint of the birdwatcher. Perhaps the most important is full recognition of a State Bird for Minnesota. The M.O.U. has endorsed the Common Loon. A committee will be appointed, and an effort made to bring sufficient pressure on the State Legislature to effect passage of a bill to formalize the Loon as the State Bird. Each one of us should attempt to bring this matter to the attention of our local representatives whenever possible, to substantiate the work of the committee.

We should also fully recognize what our progression of living has done to our wild life. In Minnesota we were indeed fortunate in that we have had three distinct types of habitats within our borders. To the northeast, conifers; the southeast, decidious forests; and, to the west, the prairies. However, over the last 100 years all three of these areas have changed so that the bird and animal life has had to change to meet the new requirements. For example, the White-tailed Deer have moved out of their native area in southern Minnesota, and now the larger portion of the White-tailed Deer population is found in the north. With the number of forest fires and woodsman's axes, the pines in many places of northern Minnesota have given place to the popples. There is hardly any native prairie left, with the result the pheasants have taken the place of the Prairie Chicken. Unless something is done to preserve the little remaining prairie area, the Prairie Chicken will soon become extinct. The state of Minnesota has tried to preserve some of the remaining potholes, by buying up the land so that the sportsman would have a place to hunt. This has preserved some of the habitat that would otherwise have been destroyed for raising and breeding places of our waterfowl. Hunting has reduced many species of our native birds — especially the waterfowl — to a fraction of their former numbers. Erosion has also taken its toll of our wild life. As you go through the western part of the state graveyards stand sometimes as much as a foot above the surrounding areas, which is a good indication of the amount of erosion. Every conservation method possible should be employed to prevent the loss of this topsoil.

There is a great need for preserving the very few remaining virgin areas of our state. At the current rate of dissolution, future generations will never know any natural type of ecological development, and from a scientific standpoint these areas should be maintained so that there can be a comparison of the new and the old. If preservation is not established, many present forms of animal and plant life will be gone forever.

As the working days grow shorter, there will be more opportunity for recreation — and in particular outdoor recreation. Our few remaining natural, wild life areas could be converted into recreational places, where instead of shooting animals and birds with guns, they could be "shot" with cameras . . . which, incidentally is a more skillful art! There is obviously an increasing interest in our natural elements and surroundings, as is demonstrated by the fact that the Natural History Society has found it necessary to expand their performances at the Minneapolis Art Institute (which has a seating capacity of 750) from one to two an evening, and use two evenings for each showing instead of one, as formerly.

This year let each of us individually campaign toward the preservation of Minnesota's invaluable natural, wild life and environs, for as we are successful individually, so will it be reflected collectively, for the enjoyment of all.

Dana R. Struthers

Wood Duck Nest In St. Cloud, Minnesota

by

Harry H. Goehring

Rare indeed is the occasion when a Wood Duck selects a hollow oak tree in the center of a city to use as a nesting site, especially if that tree is located in a much used recreational area such as Barden Park in St. Cloud, Minnesota.

Barden Park, located three blocks from the state college buildings and four blocks from the Mississippi River, is surrounded by a residential area and covers an area of one city block. In it grow pine, spruce, elm, maple, and oak trees. In the center is located a bandstand from which weekly summer concerts originate. The whole area was used daily for organized playground activities of the city recreational program. Such was the setting for a Wood Duck's nesting area.

That a possible nesting site might be found here was first suggested by John Weismann who, at 8:00 a.m. June 3, 1958, noted a "duck-like" bird fly through the park. A check of the trees revealed an opening in an oak tree 11 feet above the ground and about the size through which a duck could pass. That night, armed with a ladder and a flashlight, the female duck was seen on her nest 58 inches below the entrance. Thus it was established that on this day there was a nest, and that incubation had begun.

During the incubation period many events could have caused the female to abandon the nest. No less than 15 flash pictures were taken, of the female on the nest early in the period and of the female and of two young at hatching time, by extending the flash gun and camera inside of the tree. Practically every night and occasionally during the day time a flashlight was directed at the female to ascertain continuing incubation. Noisy games continued daily as children played near the tree. Band concerts, with horns blowing approval and applause, provided hour-long weekly disturbances; but nesting continued.

That July 3, 1958 was the day for leaving the nest was determined by the presence of two baby ducklings beside the mother on the previous night's inspection trip. At 5:00 o'clock in the morning of July 3 a crew of six interested persons assembled two blinds and readied a 16 mm. movie camera to record the events of this "coming out party." At 5:55 a.m. the female duck flew from the tree in the direction of the river. She returned 50 minutes later to spend the next hour inside the tree. During the next four hours the female made ten appearances at the nest entrance to survey the surroundings, and possibly to calculate the chances of taking her brood safely to the river. The following tabulation of appearances of the mother duck at the entrance of the nest site gives a clearer account of the nest-abondoning operation.

Time of appearance at nest entrance	*Interval of time spent surveying the landscape*
7:45 a.m.	5 minutes
8:25	10
8:57	7
9:17	10
9:35	6
9:49	9
10:04	6
10:18	14
10:40	3

When the female appeared the last time (10:40) two babies appeared crawling on her back, but clung to the tree as she flew to the ground near the base of the tree. In less than a minute the two babies dropped to the ground and

two more appeared in the entrance and jumped into the air to land near the others on the ground. The next three young appeared singly and without hesitation jumped to the ground. The mother, now with seven young, moved away from the tree, about six feet, only to return, make a high pitched noise, and instantly two more ducklings popped out of the opening. Apparently with noses counted for a total of nine, the mother led the young through the grass away from the crowd which had assembled to take pictures and watch the events. Since the selected direction was away from the Mississippi River the "helpers" soon herded the flock in the other direction, across sidewalks, gardens, streets, and through traffic to the river. The five block drive took over an hour, in which time the babies often squatted to rest.

There were 12 eggs in the setting. Nine young ducks left the nest. Of the remaining three eggs, one apparently was not fertile, one had hatched possibly five days, and the other one appeared to have developed about 20 days before dying. A 75 per cent hatch for Wood Ducks is, according to T. S. Roberts, rather high.

It is of interest to note that when the crowd of people, who tried to be helpful in driving the young and the mother to the river, got too close, the mother duck flew to the lower branches of the surrounding trees, however, always in the direction of the river from the young. While in the trees she kept calling in a high pitched voice to the young to direct their movement. Such action may be interpreted as protection for herself and, if possible, to save the lives of the young, too.

It was reported by a 10-year-old boy, the son of one of the college staff members, that the female duck had come back to the nest at 6:15 p.m. of the day that the young were taken to the river. Whether this was just a matter of habit, or an intentional check to see if there were any more ducklings in the nest, is not known.

The 200 feet of color movie film recorded a visit of a gray squirrel at the nest entrance while the ducks were inside and a visit by a White-breasted Nuthatch which did not leave until it looked down at the last few ducklings attempting to crawl up the inside of the tree. Such shots were not expected, but added dividends to the venture.

It is hoped that this account will stimulate others to watch for and record nature's drama as it is unfolded near at hand. — *State College, St. Cloud, Minnesota*

It may be of interest to the readers of *The Flicker* to learn that Dr. Olin Sewall Pettingill Jr., renowned ornithologist and Audubon lecturer, will return to the University of Michigan Biological Station for the 1959 summer session after last summer's absence to study the birds in Iceland. Dr. Pettingill will teach an introductory course and an advanced course in ornithology at the Station, which is situated near Mackinaw in Michigan.

Fifteen other courses, seven in botany and eight in zoology, covering all aspects of field biology, also will be taught, by a faculty of fourteen other prominent biologists from seven separate colleges and universities. Research is an important part of the program. Under-graduate and graduate students and research workers are eligible to study at the Station. A limited number of grants-in-aid will be awarded.

All persons interested in studying at the Station are invited to write to Biological Station, 2129 Natural Science Building, the University of Michigan, Ann Arbor, Michigan. — *A. H. Stockard, Director*

On the Lookout for Ravens

by

Jerome Wagner

It is generally understood that the job of the forest employee assigned to duty in one of the state's forest observation towers has as its prime responsibility the detection of "smokes" to enable rangers at headquarters to catch a possible forest fire in its amenable infancy. In the extreme northeastern tip of Minnesota it is typical that about 50 per cent of a towerman's working hours during the summer months are thus spent scanning the forest with protective alertness.

Eight hours of such observation for many days in succession might to some be boring and lonely but to a great many of the readers it would likely be neither. Aside from the intrigue of half-hidden valleys and lakes, there is just enough animation in the scene from the tower's vantage point to make the job one of soothing invigoration, especially to an individual that spends the rest of the year teaching school in a teeming Twin Cities' suburb as does the writer.

Every day in the tower offers a hawk's eye view of chipmunks and snakes going about their activities unaware of your presence. One has an unequaled view of Tiger Swallow-tails "dog-fighting" in pin cherry and mountain ash tops, or the "blips" of rising fish on the surface of the quiet lake below.

The tower is also a listening post of sorts, up to which characteristic woodland sounds may drift — the chirp of a chipmunk, the grating croak of a wood frog, or the rasping whistle of a hawk.

Then, too, there are always visitors to add interest — jumping spiders, tachanid flies, aphids, and on the calmest days, the unwelcome gnat of the forest, the black fly.

From time to time more exciting things may enliven the lookout, such as the deer that bounds across the knoll below and stops at a safe distance to observe the car that frightens it, or the successful plunge of an osprey that is turned to naught by the sudden swoop of an eagle from above, causing the osprey to drop its prey.

Thus the work in Devilfish Lookout on a crest in Section 31, Township 64 N, and Range 3 E, Cook County, Minnesota, was far from boring or lonely.

Raven Nesting Site, Cook County

Early in June, 1956 an episode began rather casually that was to add zest to tower duty for about two weeks. It started with the muffled sound of distant cawing that just barely nudged the writer's threshold of awareness at various times during the day. For some time the source of the sounds was not discovered but since cawing was not too common a phenomenon in this wilderness spot, it was a noteworthy occurrence. Crows typically were most abundant along the north shore of Lake Superior where litter-bugging and road kills made for an ample bill-of-fare. Finally after a few days a black form was sighted momentarily as it dipped behind the edge of the cliff that stretched generally east and west between Devilfish Lookout and Devilfish Lake a mile or so to the north.

Days passed and the cawing became more evident. Enough sightings had been made of distant black forms moving across the valley to the north to support a decision that ravens were responsible for the sounds. With the cawing as a signal to watch for activity, it was soon apparent that two ravens were working in the territory, that they were occasionally carrying something that might be food, and their activity seemed to focus around an area about one hundred fifty yards north of the tower. This latter helped to explain the muffled character of the sounds which were coming from below the cliff.

About a week had gone by during which a few notes had been taken. Those for June 12 read:

"Nests of ravens located 15 to 20 feet up the cliffside about 100 yards north-northeast of the tower. Two nearly grown young present in nest. Parents shy — kept distance — not particularly defensive. Cliff has northern exposure."

On June 15, 1956 the notes read:

"Removed one young raven from the nest — the other flew and made a clumsy landing in a tree several blocks away. The parents concentrated on this individual, making no real effort to rescue the one that had been taken."

As of this writing, more than two and one-half years later the captive raven has achieved a degree of tameness. It roosts at night in a shed and haunts the immediate vicinity of the writer's home by day. This will be the first spring that the bird (probably a female) will have the benefit of unclipped wings during the mating season. I do not know what her reaction will be to this freedom as that season approaches. In any case the total experience thus far, beginning with an incidental observation from a forest protection tower, has proven interesting. If the bird shows signs of restlessness as spring approaches, an attempt may be made to return her to the rugged attractiveness of northeastern Minnesota, hopefully to enable her to establish a nest and territory of her own in an area that has been a home for the bear, the moose, wolf, raven, and trout. — *Anoka Senior High School, Anoka, Minn.*

M.O.U. SPRING MEETING

The spring meeting of the Minnesota Ornithologists' Union will be held at Douglas Lodge, Itasca Park, on Saturday and Sunday, May 30-31. Bring Saturday lunch. Meals served at lodge will be dinner Saturday evening, breakfast and lunch Sunday. Total cost of meals and sleeping accommodations will be $10.00, a check for which must accompany reservation. Make check payable to Douglas Lodge and mail with reservation to Douglas Lodge, Lake Itasca, Minnesota by May 10. Field trips will start from lodge at 1:00 p.m. Saturday and at 6:00 and 9:00 a.m. Sunday. Meeting Saturday evening at 8:00. For any further information call Mrs. Mary Lupient, chairman.

Two Reports of Mountain Lion from Lake and Cook Counties

by

Gary C. Kuyava

Previous to 1958 there were only five records of the Cougar or Puma, as the Mountain Lion is sometimes called, in the state of Minnesota. These were: one in southwestern Lyon County, two in the west central counties of Becker and Ottertail and one in the east central Chisago County, (Gunderson and Beer, *Mammals of Minnesota,* Minnesota Museum of Natural History Occ. Papers No. 6, 1953). If one consults a map, it will be noticed that none of these records come within 200 miles of observations in Lake or Cook Counties.

On March 12, 1954, Cyril and Elmo Sorrels of Williams, in Lake of the Woods County, saw what they thought to be a Cougar. On March 13, they contacted Game Warden Harland Pickett of Baudette who positively identified the tracks of the animal the Sorrels had seen as those of a Mountain Lion.

While driving to Ely, Minnesota, in late May or early June, 1958 an employee of the Ashbach Construction Company saw a very large long-tailed cat with two spotted young following close behind cross State Highway No. 1 near the Happy Wanderer Tavern in Lake County. This story was related to my brother, John G. Kuyava, who is presently stationed at the Tofte Ranger Station as an assistant forest ranger. The construction worker did not note the exact date on which he apparently saw these mountain lions.

In Cook County during the summer of 1958 a strange screaming animal was heard several times by several area lumberjacks who know the screams of the bobcat and Canada lynx. None of them had heard the scream of a cougar before. These screams or calls were heard near the area of the Parent Lake Road which intersects the Sawbill Trail about 20 miles from Lake Superior. A short time after these screams were first heard the cat was seen. It was described as a large brown cat (about six and one-half feet long) by several of the lumberjacks who related their experiences to my brother. Also, it was described as having a long tail. To confirm the story further, my brother, who is also a very critical observer, saw some very large cat tracks about a half mile north of the Parent Lake Road in the woods while hunting on the first week end of Minnesota's rifle season for deer. These tracks he followed until they climbed up a windfall where the cat apparently rested for a short period. When he contacted me, I showed him the description of the Mountain Lion tracks in the book *A Field Guide to Animal Tracks* by Olaus J. Murie. He positively identified the tracks he had seen as those of a Mountain Lion.

In conclusion I will say that this is an animal to be looked for throughout the state of Minnesota. If and when either the tracks or the animal itself is found, detailed notes should be recorded immediately. These notes should be sent to the editor of *The Flicker.* — *Duluth, Minn.*

Seasonal Report

by

Mary Lupient

The beautiful Indian Summer we enjoyed in the early autumn lingered on until November 18 when a severe wind storm swept in bringing snow to the whole state and blizzard conditions to the Red River Valley and some northern sections. At this time the worst storm in 50 years struck the north shore of Lake Superior and was especially severe around Grand Marais, Cook County. A 75 mph wind blew down scores of cabins and wrecked boats. Power lines were down and for a time the town was isolated. Strong winds and very cold weather dominated the whole season except for two weeks of mild weather during the Christmas holidays. In the Twin City area only a trace of snow fell up to the time of this writing February 4. However, there was some snowfall in northern and western sections and a few blizzards occurred in these areas. A few times Bemidji was listed as the cold spot in the nation having a low temperature of 40° below zero.

Cold and windy weather didn't discourage hundreds of Mallards and some Black Ducks that lived in the warm waters of the Black Dog plant just south of Minneapolis. They flew to the neighboring cornfields to feed. In an open spring area near St. Paul John Hall saw more than 300 Mallards in December. In Minneapolis in open water of the Mississippi between five and six hundred Golden-eyes formed a raft every evening at twilight. Robert Janssen reported Old Squaw's in fair numbers off the North Shore, January 24. A few American Mergansers and about 125 Hooded Mergansers on Lake Vadnais, St. Paul, November 23, were reported by R. E. Cole.

A Ross' Goose was received November 5, 1958 by the Museum of Natural History from the Sand Lake Refuge in South Dakota. It had been collected because of an injury. Mrs. Don Petty who lives near Medicine Lake, Hennepin County had an interesting experience with a Canada Goose which lived all winter in a small patch of open water fed by springs. When the weather got severe Mrs. Petty chopped ice to make a larger opening. The bird finally got tame enough to wait at a little distance while she chopped and when she left it entered the water. There are many past records of Canada Geese wintering in Minnesota. For several years numbers of them have spent the winter on Silver Lake in Rochester. Rev. Forrest Strnad estimated that there were about 2000 there this season.

A flock of about 78 Whistling Swans which flew very high over Lake Vadnais, November 15, was reported by A. C. Rosenwinkel. On the same date he saw another flock of 38 fly over Pleasant Lake, Ramsey County. This was the only report of Whistling Swans for this season.

For the past few winters hawks were reported less commonly than in previous years but this year several were seen in the south half of the state, especially in the river valleys. Red-tailed, Rough-legged, Sharp-shinned, Cooper's, Red-shouldered, Peregrine Falcon, Goshawk and Sparrow Hawk were the species reported. A Bald Eagle was seen by A. C. Rosenwinkel near St. Paul November 11. A Golden Eagle was found shot in Rice Lake National Refuge near McGregor, Aitkin County. It was received by the Museum of Natural History December 27, 1958.

No Snowy Owls were reported this season. A Great Grey Owl appeared on the Christmas Count at Walker, Cass County, positively identified by H. R. Hanson. Several Great Horned Owls were listed in the Christmas Counts for the Twin City area. Two Long-eared Owls spent several weeks on the James Wilkie property near Bloomington, Hennepin County. A Short-eared Owl was found at the Isaac Walton Bass Ponds, Hennepin County, January 1 by Ray Glassel. He reported finding four Hawk Owls in Beltrami County in January.

There were no reports received on the numbers of Grouse and Ring-necked Pheasants this season. An occasional Bob-white Quail was seen. On November 9 Amy Chambers reported that nine of them were feeding on a gravel highway near Henderson, Sibley County, and that others were feeding on an adjacent hillside.

Three Common Snipe were recorded by Florence and Lee Jaques for their Christmas Count in the vicinity of White Bear Lake, Ramsey County.

During the winter season of 1957-1958 there was an influx everywhere in the state of White-winged Crossbills and Red-breasted Nuthatches. This season no Crossbills have been reported and only an occasional Red-breasted Nuthatch. However, Bohemian Waxwings appeared in various sized flocks in all sections. From Milbank, South Dakota came a report from Lowry Elliott that there was an invasion of these birds there.

Golden-crowned Kinglets were unusually abundant this winter, especially in and around the Twin Cities. Mrs. John Darley, Minneapolis, stated that several of them spent the winter in her yard. There were other reports of from one to three that spent the winter around residences.

Several interesting reports of Tufted Titmice were received indicating that these birds are extending their range. Harold R. Hanson, Walker, wrote that one came regularly to a feeder at Leech Lake, Cass County, and that about ten used a feeder five miles east of Walker. Of interest also was a report by R. D. Sanders, Brainerd, Crow Wing County, which follows: "On Sunday, November 30, 1958, I saw one Tufted Titmouse feeding on the ground under white pines and as high as 50 feet in the same trees. There were several Black-capped Chickadees and White-breasted Nuthatches in the vicinity of a bird feeding station some 50 feet away but the Titmouse showed no interest in them. The Titmouse has not been seen since and that one bird is the only one I have ever seen in the Brainerd area. This observation was made at noon on the west side of Gull Lake, L5, S32, T135N: R29W; Cass County." There were reports of single individuals in the Twin Cities. Six fed regularly at the James W. Wilkie feeder near Bloomington and three at the C. L. Patchin feeder also near

Bloomington. Rev. Strnad had two at his feeder at Kasson, Dodge County and stated that there were at least six on a forty acre tract in that area.

Mourning Doves wintered in areas south of the Twin Cities. The largest flock reported, 30 individuals, was observed near Grass Lake, Hennepin County, on February 7 by Robert Janssen.

Two Yellow-shafted Flicker were reported, one at the Philip D. Tyron feeder at Excelsior, Hennepin County, and one at the Cecilia Weaver feeder at LeSueur, LeSueur County.

Dr. and Mrs. D. G. Mahle, Plainview, Wabasha County, recorded six Bluebirds and 60 Cardinals in their Christmas Count. Forty of the Cardinals in one flock fed in a cornfield near Whitewater State Park. There were 66 Cardinals in the Excelsior Christmas Count.

The acorn crop was very poor and the Bluejays must have migrated in search of food for they were greatly reduced in numbers. One could drive many miles without seeing a single individual.

Great flocks of Red-winged Blackbirds wintered in the river valleys especially along the Minnesota River near Shakopee where Robert Janssen saw from three to five thousand rise to feed in adjacent cornfields January 18. Brother Pius observed more than 300 near St. Paul December 27. Common Grackles were seen by Mary Aftreith who lives near Schroeder, Lake County, on the north shore of Lake Superior. A small flock of Common Grackles and a flock of Rusty Blackbirds lived all winter in the Minnesota Valley south of Minneapolis.

Purple Finches frequented feeders in normal numbers and Goldfinches in the company of Tree Sparrows roamed the countryside in large mixed flocks. Rev. Strnad reported one Snow Bunting and a flock of over 100 Lapland Longspurs near Kasson December 12. There were three more flocks of Longspurs in Dodge County, February 4 where he saw 25 of the first Horned Larks.

For the most part Pine Grosbeaks did not come down from the north and very few Evening Grosbeaks were sighted, possibly due to the shortness of boxelder and green ash seeds. Dr. W. J. Breckenridge, Minneapolis had a small flock of Evening Grosbeaks at his feeder during the middle of December. Sally Wangensteen reported four Evening Grosbeaks in Minneapolis in January and A. C. Rosenwinkel saw about 20 north of St. Paul December 27. Dean Honetschlager, Stillwater, Washington County, saw 25 in January. H. R. Hanson said the count on Grosbeaks was low at Walker.

Robert Janssen and Robert Dickerman went on a field trip to Two Harbors, Ely and up the Gunflint Trail the week end of January 18. They found that Pine Grosbeaks were common between Little Marais, Lake County and Grand Marais. There were several Brown-capped Chickadees near Ely, St. Louis County. Gray Jays were fairly common and Ravens were common. There were a few Common Redpolls. Herring Gulls were fairly scarce along the north shore of Lake Superior. There was a Common Grackle near Grand Marais.

The following unusual records for the season were received: Virginia Rail, Swamp Sparrows at Isaac Walton Bass Ponds January 25, Ray Glassel; three Killdeer, St. Croix Valley near Stillwater, Christmas Count, Mrs. W. C. Olin; one Magpie, 12 miles east of Onamia, Mille Lacs County, November 3, M. Ivanovs; small flock of Magpies at Walker, Harold R. Hanson; one Harris' Sparrow, Whitney Eastman feeder, Minneapolis, November 7-18; Red-eyed Towhee, Upgren feeder, North Oaks, Ramsey County, third week of December; Winter Wren near Plainview, Dr. D. G. Mahle, Christmas Count; Yellow-bellied Sapsucker, feeding on suet at a feeder in Marine, Washington County, December, Dean Honetschlager. — *Minneapolis, Minn.*

Birding Without Binoculars

by

Charles Flugum

My occupation keeps me too well anchored to get very far in search of birds, but during the course of the year a surprising number of birds come to see me. To date I have seen 169 species of birds on my own farm near Albert Lea, Freeborn Conty. Most of my birding is done as I go about my chores and field work and therefor without binoculars since it would be inconvenient to carry these seeing aids with me constantly. It will not be possible in this brief paper to mention more than a few of my birding experiences.

While doing my cow chores on May 5, 1953 a strange bird song attracted my attention. Stepping outside and looking up into the large oak tree between my barn and milkhouse, I soon spotted the songster, my first Cerulean Warbler. What a place to find this rarity. The bird was considerate enough to stay about the farmstead for several days for my further observation.

One morning I was more than a little surprised to see a Cooper's Hawk perched calmly on a hog fence post less than four rods away. I took this to be a young bird but even so it was very strange accipiter behavior. I thought perhaps the bird was sick but this idea vanished when the hawk suddenly darted after an English Sparrow that avoided capture by flying into a roll of woven wire. The hawk seemed annoyed at this frustration while the sparrows grew increasingly sassy. After several attempts the hawk finally pursued a sparrow into a bur oak tree and I heard a scream so I suppose breakfast was on. At least the hawk did not return to its post.

Living as we do between several lakes it is not unusual to see a Great Blue Heron fly overhead. I was amused this spring, however, to see one carrying a large stick in its beak. Judging from the bird's wingspread the stick must have been at least four feet long. There is a rookery of Great Blue nests on Big Island in Albert Lea Lake and in that direction this heron was flying, but I didn't think nesting material was so scarce as to necessitate carrying it for seven miles.

Early one winter morning I heard a sound as if someone was tapping on a window pane to attract my attention. As I came past the corncrib I looked up at the window above the grain bin and through the glass made out the form of a Downy Woodpecker. Realizing that it would not take this little carpenter long to raise havoc with a pine window sash, I hurried up inside the corncrib hoping to catch the bird. An English Sparrow, familiar with such surroundings, would have been hard to catch but the confused Downy Woodpecker only struggled desperately against the glass where I easily caught it. For a moment it struggled to free itself and pecked at my fingers but soon it relaxed and remained quiet until released outside the building. I wondered why this woodpecker had entered my corncrib. It could, of course, easily get in through the spaces between the siding but what had lured it in? Two days later I had the solution. A Downy Woodpecker was working industriously on a corn cob on the feeding floor. After the bird had flown I examined the cob and found that it had been split apart for half its length and there in the pith was a neat cavity from which the Downy had obviously extracted a European corn borer. These pests burrow

into the pith of cornstalks and spend the winter there in a dormant state and emerge as moths the following summer. This particular year a very successful late brood of borers worked extensively on the shanks of the immature ears. Some of these borers worked their way into the pith of the corn ears to spend the winter there. I often see Downy Woodpeckers in my corn field. In addition to working on trees the Downy also works on weed stalks and to a Downy I suppose cornstalks fall into the same category. They have naturally discovered the European corn borer there but the fact that a Downy had discovered corn borers that I had brought into my corncrib concealed within the corn ears shows more ingenuity that I have observed in its cousin, the Hairy Woodpecker. Incidentally, the window collapsed in the next strong wind and scattered broken glass all over my oat bin.

My electric fence was out of order one day. The machine kept clicking but no impulse was coming over the wire, a bad situation with my 20 cows on one side and my neighbor's corn field on the other side of a single wire. I started walking along the wire watching it closely to make sure of locating the place where it was grounded. Suddenly I stopped for there on the wire not two feet from one of my hands perched a male Ruby-throated Hummingbird. There was no need for binoculars to see its long beak, its tiny eyes and even individual feathers. When it turned to preen a wing feather I could see its tiny feet clasping the wire. It seemed strange to think that this tiny creature, probably weighing less than two grams, actually possessed the ability to spend its summer with us and its winter in South America. Despite its size, however, there seemed nothing delicate or frail about the bird. It was easy to believe what has been said about the hummingbird, that in proportion to its size it is the strongest of all birds. For two or three minutes I watched the unperturbed gem of birddom, then with a dull buzz, its wings a blur of motion, the hummer rose from the wire but perched again momentarily on a dead twig before disappearing.

My fields are usually unfit for spring work until about April 20, but in 1955 I was seeding grain on April 9. When I saw a sparrow-sized bird on the ground I stopped the tractor and started to approach the bird on foot. Although I had seen hundreds of Lapland Longspurs during their fall migration, this was the first one I had seen in spring plumage. Much tamer than during fall migration, the longspur let me get within about 12 feet but kept walking away to maintain that distance between us. At that distance I could see clearly the black and white markings about its head and the chestnut patch on its neck. I also looked for and saw the long claw on its hind toes. That evening I continued discing until after dark and saw dozens of these birds fly up within range of the tractor lights. Some of them were near enough to show their chestnut markings. The next day was Sunday so I called up two of my birding friends who drove out from town but although we drove across the field several times not a longspur did we see.

By the time I get into the fields in the spring the first brood of Horned Larks have left the nest and are able to scramble out of the path of field implements but until June 14, 1958 I had not seen a Horned Lark's nest or eggs. On that day, however, I was cultivating corn when a Horned Lark flew up and feigned injury. I spotted the nest and stopped the machine in time to spare it. The two eggs were not alike. One was densely peppered with tiny brown dots while the other was a little larger and more sparsely spotted. You will recognize as I did that the latter egg belonged to that culprit the Cowbird.

Killdeers are constant field companions. On my way home from the field, one day when our children were small,

I encountered a Killdeer family and caught one of the chicks that could not have been much over a day old. Slipping the little fellow into my shirt pocket I took it along home to show the children, intending to take it back after dinner. The children had a hilarious time watching the chick running about on the linoleum floor. Not adapted to this smooth terrain the chick started and stopped too suddenly and alternately fell forward and sat down. Meanwhile both parent birds flew about the yard and over the house so I released the chick in the cow yard and watched while they came down to it and ran with it down the cow lane and over the hill escorting it back to the rest of the family.

On May 15, 1956 I broke a small part on my corn planter just after the implement shop had closed for the day. I do not enjoy such frustration but the next day all seemed right with the world because on the first trip across the field I saw my first Western Kingbird perched on the ground near the planter's path. Near it for comparison was an Eastern Kingbird. As the check wire whipped sideways both birds jumped nimbly over it and continued looking for insects.

On October 10 of the same year I added another western bird to my life list. About a dozen flickers flew up from the ground along my cow lane when I approached them on my way home with the tractor at noon. As the birds turned to fly into my windbreak they flashed the underside of their wings and I was thrilled to see, among the bright yellows, one salmon red, unmistakable at a distance of ten rods.

I have often wished that I could be in Dakota in May to see the beautiful Golden Plovers during their spring migration so imagine my pleasant surprise, while discing my corn ground on May 14, 1958, to find about 50 of these birds spending the entire day with me. They were the first "goldens" I had seen in spring attire. It was amazing how well these conspicuously colored birds blended with the plowed ground. It was impossible to count them while they were on the ground. When a bird moved I could see it but until it moved one might be quite near the tractor yet unnoticed. Only when they took flight could I get an idea of their number. Occasionally they circled widely, swiftly and in formation but always alighted on a low portion of the field where they and the Grackles feasted so lavishly on insect larvae that I decided to spend $133.00 for aldren at corn planting time to protect my young corn plants from root damage by insects.

Birding is not hard to come by on the farm. It is sometimes impossible to avoid, even after dark. One evening my combine bothered so I did not get started home with last load of grain until well after dark. As I drove past a woods with my pickup truck something was suddenly fluttering against my face. The

caress was ever so gentle but I didn't think any moths were that large. I reached up and caught the confused creature that turned out to be a Screech Owl.

Late in November of 1956 I sat at the controls of a tractor-mounted cornpicker far into the night. Bundled up like an Eskimo I listened to the steady noise of the machine and watched the cornstalk tops in the poorly-lighted area extending only a few feet ahead of the tractor. This was my only indication that the machine was working properly. Anticipating the moment of jubilation that every farmer feels when his corn is at last all in the crib, my thoughts never touched on the subject of birds until there was a disturbance, first about my knees and then up the front of my sheepskin coat. I grasped at and caught, of all things, a Robin. The bird must have been roosting among the cornstalks and somehow had gotten into the machine to come fluttering up through the noisy, whirling mechanism, luckily quite unhurt. Even though it was awkward to handle all the controls with one hand I held onto the Robin and took it along home to substantiate a birding experience that might otherwise have been open to some doubt.

With corn harvest completed there is more opportunity for birding from the window of my den but here the binoculars are within easy reach and that is part of another story. — *Albert Lea, Minn.*

The Minnesota Ornithologists' Union held its annual paper session at the Museum of Natural History, December 6, 1958. Several interesting papers were well presented during the day. The program for the evening consisted of motion pictures. The Minnesota Bird Club was host for the reception in the afternoon. In spite of very cold disagreeable weather there was an attendance of over 100. The treasurer reported that the Minnesota Ornithologists' Union now has a listing of ten life members as follows:

Mrs. Lewis Barrett, Minneapolis, Minnesota
Frederick Brewster, St. Paul, Minnesota
Mrs. Whitney Eastman, Minneapolis, Minnesota
Miss Mary I. Elwell, Duluth, Minnesota
Dr. Olga Lakela, Duluth, Minnesota
Mrs. Charlotte Luwe, Mankato, Minnesota
W. R. Luwe, Mankato, Minnesota
Mrs. Evelyn Putnam, Duluth, Minnesota
Mrs. Mary Ross, Marquette, Michigan
Dana Struthers, Minneapolis, Minnesota

Help is requested in obtaining data on the number of eggs the Black-capped Chickadee lays. A graduate student at the University of Illinois would like information on the number of eggs found in complete clutches, the date they are found, and the locality. Please forward any data obtained this spring to the *Editor.*

CORRECTIONS

Volume 30:4, p. 141, lower right hand photograph should read *Black-capped Chickadee* on suet feeder at Encampment Forest, not Red-breasted Nuthatch. *Editor*

Volume 30:3, p. 86, second column, Red-breasted Nuthatch should be changed to read *White-breasted Nuthatch. Editor*

The "drummer of the woods," the Ruffed Grouse, lives in the woodlands of the northeastern United States. In these woods a fallen log serves as a stage for this spring performance called "drumming," an invitation to love and war.

From a crosswise position
a couple of short steps for

THE RUFF

At the same time as the fanning speed of the wings is increasing, the body becomes almost erect and the tail flattens against the log.

Legs and tail flattened ag
tripod against which he ex
producing the muffled "dru

n top of the log he takes
ward or down the log.

A few forward and upward flicks of the wings seem to serve as practice strokes.

ED GROUSE DRUMS *by Harvey L. Gunderson*

ainst the log serve as a
pends all his energy into
nming."

After finishing, the tail is brought up and the wings are relaxed. A rest period of three or four minutes precedes the next performance.

The Minnesota Bird Banders

by

Forest V. Strnad

With this issue of the *Flicker* an attempt is being made to begin a quarterly report from bird banders who have permits to band birds in the state of Minnesota. This is worded this way because some banders in surrounding states may also have a permit to band in Minnesota.

In January of this year I wrote to Harry H. Goehring of St. Cloud to inquire about a list of the banders in Minnesota as he had compiled such a list in 1951. The list of banders with this article is largely made up from his report to me.

At the December 1958 meeting of the Minnesota Ornithologist Union at the Museum of Natural History, University of Minnesota, some of the banders met for supper to talk over their interests and to see if we might be stimulated to sharing further our hobby with other bird watchers in our state.

At the request of our new editor, Robert B. Janssen, this writer is attempting to do two things: first, compile a list of active bird banders and to keep this list up-to-date.

For those who have tried it, bird banding is a lot of fun. Our motto might well be, "A bird in the band is worth two in the bush." We feel that it is a lot of fun to have a bird in the hand and see it real close. That way there is very little possibility of mistaking the specie of the bird, although sometimes one does come across a bird that is puzzling for a while.

To the uninitiated you might be interested in the steps necessary to secure a Federal Bird Banding permit. A person must be at least 18 years of age before he writes to the United States Department of the Interior, Fish and Wildlife Service, Patuxent Research Refuge, Laurel, Maryland, for his application to band. In addition he must submit the names of three persons who can vouch for his ability to identify a large number of birds in his locality. It is helpful if you have a number of books on bird identification, habits, etc, as this is one of the questions asked of each applicant. An applicant must be willing to keep accurate and detailed records of the birds he bands and re-traps. The bands and report forms are furnished by the banding office, but all traps, nets, pliers and other materials used in banding must be furnished by the bander.

In addition to the Federal Bird Banding permit which is good until surrendered or forfeited to the Department of Interior, an annual permit is required from the State of Minnesota, Department of Conservation. A request for this permit is required for each new year and a report of the past year's activities must accompany this request.

If a quarterly report is to be made to our editor, Mr. Janssen, then you will have to send me a report of your interesting bird banding notes before the first of February, May, August and November. Better yet send them to me by the fifteenth of the above mentioned months.

The following is a list of the persons who are known to have been active in bird banding in Minnesota and are still residing here, or are at present still active banders. A fuller report will be made in the June issue of their present status.

Mrs. Frank Altman, 5544 Dupont Avenue S., Minneapolis.

Ron Anderson, 837 Nicollet, Mankato, Minnesota.

Mrs. Paul Becker, Hilltop Acres, Walker, Minnesota.

James Beer, Division of Entomology, University Farms, St. Paul 1.

Rhonda Bjelland, Hoffman, Minnesota.

Walter J. Breckenridge, Museum of Natural History, U. of M., Minneapolis.

Robert R. Cohen, 719 East 6th Street, Duluth, Minnesota.

Kendall Corbin, Carleton College, Northfield, Minnesota.

Mrs. C. H. Culbertson, 104 Lincoln, Jackson, Minnesota.

Miss Margaret Drum, 217 South Street, Owatonna, Minnesota.

W. J. Ellerbrock Jr., 529 Federal Courts Bldg., St. Paul 2.

Arnold Erickson, Dept. of Conservation, St. Paul, Minnesota.

*Miss Constance Everett, 1899 Portland Avenue, St. Paul 4.

David L. Gerwitz, 826 Sherburne Avenue, St. Paul 4.

Harry H. Goehring, 602 3rd Avenue S., St. Cloud, Minnesota.

David Grether, 1406 8th Avenue N., St. Cloud, Minnesota.

Alfred Grewe, Junior College, Coleraine, Minnesota.

G. W. Gullion, 605 Slate Street, Cloquet, Minnesota.

H. R. Hanson, Walker, Minnesota.

Miss Julia Hawkes, Waseca, Minnesota.

P. B. Hofslund, U. of Minn., Duluth Branch, Duluth, Minnesota.

Mrs. Melvin Jacobson, 114 2nd Avenue N.E., Rochester, Minnesota.

Walter A. Jiracek, 2404 35th Avenue S., Minneapolis.

Carl M. Johnson, 1500 7th Street N.E., Rochester, Minnesota.

R. A. Kortman, 2567 Delaware Avenue, St. Paul 18.

Gary Kuyava, 1611 7th Avenue E., Duluth, Minnesota.

Mr. and Mrs. Boyd Lien, 5148 29th Ave. S., Minneapolis.

W. R. Luwe, 309 State Street, Mankato, Minnesota.

William H. Marshall, Div. of Entomology, University Farm, St. Paul 1.

Mark J. Nehl, New Merickel Office, Wadena, Minnesota.

Lyman W. Newlin, Broadwater Lodge, Hackensack, Minnesota.

Elmer Ollhoff, 626 E. Broadway, Winona, Minnesota.

Mrs. Charles E. Peterson, 621 Hillcrest Avenue, Madison, Minnesota.

Walter Pratt, 1607 Holdridge Terrace South, Wayzata, Minnesota.

Mrs. Luella N. Quady, Buffalo, Minnesota.

Brother Pius, Cretin High School, St. Paul 5.

L. S. Ryan Jr., R.F.D. No. 4, Little Falls, Minnesota.

Mr. and Mrs. Morris Self, Birchwood, White Bear Lake 10, Minnesota.

Mrs. E. R. Selness, Glenwood, Minnesota.

Rev. Forest V. Strnad, Kasson, Minnesota.

Dana Struthers, 4858 Fremont Avenue S., Minneapolis 9.

Ward D. Tanner, Biology Dept., Gustavus Adolphus College, St. Peter, Minn.

Mrs. John Thompson, 3420 Holmes Avenue S., Minneapolis 8.

Brother Vincent, St. Mary's College, Winona, Minnesota.

Dwain W. Warner, Museum of Natural History, U. of M., Minneapolis.

Edward Wolverton, Cook, Minnesota.

*Scott Finley, Sioux Falls, South Dakota.

*—South Dakota and Minnesota permit.

If any of you know of other active banders in Minnesota, or persons living in an adjoining state with a Minnesota permit, please send me their names so that they may get on our mailing list.

Each Minnesota bander has something vital to contribute to other banders and other persons interested in seeing and studying birds. Won't you take time now to write up some interesting facts about your work and share them through this section of the *Flicker*. — *Kasson, Minn.*

The Canadian Lakehead

by

A. E. Allin

The warm, dry months of September and October were followed by a warm November with a mean temperature of 29.7° or 3.7° above normal. The precipitation of 5.06" was far above the normal of 2.2" — in fact it was the second wettest November since 1883 when the first local records were kept. Perhaps the -15° on the 28th presaged the cold months to come. A terrific storm on November 18 blew down thousands of trees, chiefly spruce, along the Lake Superior shore. This was evident at least as far south as Grand Marais. December's mean temperature of 2.9° was the coldest in 76 years. The average is 10.7°. The precipitation of 1.74" was average. The speed and severity with which the winter hit had not been equalled in 40 years according to Steamship officials. "Clear sailing one day — heavy ice the next." January was no improvement. The mean temperature of -2.1° was 6° below normal. During the month 10.9" of snow were recorded bringing the total for the season to 45.7" slightly below average. Degree days below 65° for December and November were 4004; the average is 3510! A compensating factor for the above conditions was the sunshine. In November, December and January we had 99, 127 and 123.5 hours respectively — almost twice that normally expected. Minima temperature of -27° on December 28 and -30° on January 5 were experienced.

On January 31, the ground was covered by 13" of snow. This buried the weed seeds and there was no attraction for large numbers of wintering seed-eaters. Only 13 Redpolls were seen on the Christmas Census in contrast to 248 a year ago. It was one of the smallest numbers noted on Christmas Censuses since they were begun in 1939. Pine Siskins were not recorded for the third consecutive year. They have been seen on five of our censuses — 1946, 1948 and 1952, 1954, 1955. No Purple Finches have been seen since 1954 when four were recorded. Previously we had seen one in 1947 and no less than 16 in 1954! The American Goldfinch has never been seen on a census though one was seen shortly after the census of 1948. A lone Tree Sparrow was seen in 1947; Slate-colored Juncos have been seen on five occasions and the Snow Bunting on six but only once since 1949.

In the December issue of the *Flicker* we noted the tremendous amount of berries on the Mountain Ash, noted that the Starlings had begun feeding on them on September 11, and commented that their depredations were not marked. Subsequently Starlings almost stripped the trees. This was to be expected as Starlings remained in large flocks. Nine hundred and fifty-seven Starlings were seen on the Christmas Census, in contrast to 298 in 1957. Only in 1956, when 854 were recorded, have we approached this record. In our first five censuses, 1933-1943, we saw only 213; no census was taken in 1944 but for subsequent quintennial periods, 1945-1949 and 1950-1954 our five year totals were 592 and 1,429, respectively. The four year total, 1955-1958 turned up 2,464 Starlings. It is now apparent that greater and greater numbers are attempting to survive our winters. However, we feel the above statistics do not truly represent the facts but in part reflect a better coverage of the area as

the years go by, for we note somewhat similar increases in the figures for House Sparrows and Rock Doves. We doubt there has been that much change in the true status of these other two exotics.

Few Mountain Ash fruits remained for the few Pine Grosbeaks which appeared although the census of 173 was well above a year ago. They moved into the cities about mid-December and few were seen. A year ago they appeared earlier but had disappeared before Christmas, accounting for the low census figure of 48. Unfortunately the Starlings left little fruit on the Mountain Ash for the great flight of Bohemian Waxwings. No less than 473 were seen on the Christmas Census. In 1947, we recorded 273, but for the past seven censuses we had seen only five (December 26, 1954). Probably the 15 Cedar Waxwings reported had been attracted by the Mountain Ash in the early season and by the abundant crop of fruit on *Malus* sp.

We noted in the last *Flicker* the poor seed crop on the pines and spruces. Possibly, as a result, Crossbills have been absent with the exception of a Red Crossbill seen by David Hearn in Paipoonge Township on November 29. Apparently the poor cone crop was not general across northern Ontario. At Kapuskasing, reforestation officers of the Ontario Department of Lands and Forests collected nearly 400 bushels of black spruce cones. From this they expect to obtain two to five ounces of seed per bushel. But these seeds run half a million to the pound and these 400 bushels should produce 5,500,000 trees despite a productivity of only ten per cent. "Bush News," published by the Ontario Forest Information Service, the source of the above information, states that our forest trees produce a large crop of seed at intervals of two to four years. They believe this results in the mouse and squirrel population being held in check. "The small amount of seed produced each year maintains a low population of small animals which cannot eat all of a bumper crop of seed. This is nature's way of ensuring the reproduction of forest trees."

The seed crop is also poor on the Manitoba maples and few Evening Grosbeaks have been seen. Several naturalists have reported them feeding on the mountain ash berries this fall and winter. On the other hand the Hogarths have observed Pine Grosbeaks feeding at their station on sunflower seeds for the first time. Dr. Hogarth tells us they are much tidier visitors eating the entire seed instead of only the kernel as do the Evening Grosbeaks.

The nineteenth Christmas Census of the Thunder Bay Field Naturalists' Club was held on December 26. Lakes and streams were partially frozen and there were 14" of snow in undisturbed areas. Nineteen club members (Dr. and

Mrs. A. E. Allin, Mrs. R. M. Beckett, Mrs. R. Bourne, K. N. and R. Denis, Captain and Mrs. A. E. Fader, C. E. Garton, Mrs. M. Knowles, D. B. McKillop, R. and S. Robb, Mr. and Mrs. C. Rydholm, L. Rydholm, Miss M. Smith and J. Thompson) participated in 10 parties. They covered 21 miles on foot and 258 by auto. Five thousand three hundred and eighty-five birds of 26 species were seen if one includes the 775 Rock Doves. This established a new record for individuals, our previous high being the 4385 seen in 1956. The number of species was exceeded by the 29, 28, 31 and 27 species seen in 1947, 1949, 1954 and 1955 respectively.

Our census area includes the Lakehead cities and their immediate environs, with the center of the 7.5 mile circle just west of Port Arthur. The area consists of water, peat and muck bogs, industrial and residential areas, farmlands, and woodlands, chiefly second growth aspen, white birch, balsam and alder. The Superior extension of the Great Lakes deciduous forest zone encroaches on the southwest border of the area which is otherwise in the aspen-spruce boreal forest zone.

The following species were observed with number of individuals: Common Golden-eye 5, Ruffed Grouse 5, Gray Partridge 10, Glaucous Gull 4, Herring Gull 847, Ring-billed Gull 2, Rock Dove 775, Pileated Woodpecker 1, Hairy Woodpecker 10, Downy Woodpecker 27, Gray Jay 7, Blue Jay 19, Common Raven 175, Common Crow 8, Black-capped Chickadee 58, Boreal Chickadee 3, Robin 37, Bohemian Waxwing 457, Cedar Waxwing 15, Northern Shrike 1, Starling 957, House Sparrow 1810, Common Grackle 1, Evening Grosbeak 7, Pine Grosbeak 131, Common Redpoll 13.

The census figures largely reflect the wintering birds. Earlier we discussed in detail the status of several species. Several others are worthy of mention. In view of the poor season for Grouse we were surprised that seven were seen in the area on December 26, equalling our previous maxima in 1951 and 1952. As usual no Spruce Grouse were seen as our area is too close to the Lakehead cities. This species has not been reported on an Audubon Christmas Census for several years. From Geraldton, Ki Zroback reports four Spruce Grouse he saw there on December 26. (In a two-mile radius of Geraldton he saw 13 species and 238 individuals, including 40 Bohemian Waxwings). Gulls were a surprise. The 862 Herring Gulls seen on Lake Superior off Port Arthur far exceeded our previous maximum of 421 seen in 1948. The only previous wintering Ring-billed Gull was seen December 27, 1947, and the only previous Glaucous Gull was seen December 26, 1956. Less surprising was the presence of 28 Downy Woodpeckers. The previous high was 18 in 1950. Whereas Crows, Gray Jays and Blue Jays were present in expected numbers, note the presence of 175 Common Ravens! No bird is increasing as rapidly as the Raven and it is now one of the species we regularly expect to see within the limits of the two cities. On November 9, we followed one patroling a country road. When our speedometer registered 33 M.P.H. the Raven turned from the road into the bush.

For the fourth consecutive year, no Red-breasted Nuthatch was reported on the census. From 1938 to 1946 it was seen on only two censuses but from 1947 to 1954 it was regularly recorded and no less than 23 were seen in 1950. One, however, has been visiting a feeding station outside the census area during the present winter. Perhaps their presence or absence is related to the cone crop as Tyler has suggested (Bent. U.S. Nat. Mus. Bull. 195:32) particularly that of the black spruce, which it frequents so regularly in this region. No White-breasted Nuthatch was seen on the census but at least two were present in the census area a week later and another at the above feeding station outside the area. There are only a few records of the

occurrence of this Nuthatch locally. Both species of Chickadees are present in their usual numbers. We have yet to list a Brown Creeper or either Kinglet on a census.

Finally we note the presence of 37 Robins on the 1958 census. These were present about a large ditching operation. In January a flock was reported a few miles away where another development was underway. Immediately we thought we had the answer to their presence. Moreover we recalled that many Robins had been reported under similar circumstances several years ago. It did not explain their presence Christmas week, 80 miles southwest at Grand Marais, where we also saw them on January 11. Nor did it explain the four seen on January 25 at Silver Islet, the isolated rocky tip of a peninsula stretching into Lake Superior. Why did the Robins remain in 1954-55 and 1958-59 in such numbers? Although 17 were seen on December 30, 1950, the only other censuses on which they have been seen were those of December 27, 1947 (six) and December 26, 1953 (one). When we saw the present flock at Chippewa Park we hopefully looked for other species regularly only summer residents but apart from a lone Common Grackle none was reported. Single Grackles were seen in 1947 and 1955. The presence of a Rusty Blackbird, wintering at Marathon, 200 miles to the east on the bleak shores of Superior is of some interest. It was reported by Peter Van Kerkoerle who took a census about that town. His 1,063 individuals of 14 species also included two American Rough-legged Hawks, a Nuthatch sp., 39 Robins, 250 Bohemian Waxwings, 500 to 600 Pine Grosbeaks and six Snow Buntings.

As is usually the case, no owls were reported on the 1958 census. In the 19 we have made only four Great Horned, nine Snowy, two Great Gray and three Hawk Owls have been listed. A few owls have been reported, however, this winter. C. E. Garton and Col. L. S. Dear each observed a Hawk Owl in late fall. Mrs. Hogarth saw one outside Port Arthur on January 25. Only four Snowy Owls have been reported.

Three Mockingbirds were seen in the latter part of 1958. The Quackenbushes were visited by one regularly from late September to early December. Early in December two were seen together in Port Arthur and the identification of one was checked by K. Denis.

A few mammal records were unusual. In early May Neil Atkinson visited the bat cave at Cavern Lake and collected a banded Little Brown Bat. It proved to be one which had been banded at Eagle Cave, Richland County, Wisconsin by Fred Greeley on February 3, 1948. At the time Atkinson took it, this Little Brown Bat was at least 11 years old. In November, Keith Denis collected a second banded Little Brown Bat from the same cave which had been banded by Thunder Bay Field Naturalists' Club members under the direction of Dr. Anton de Vos in November 1948.

Since we have been writing these columns, great changes have occurred in our animal populations. The thriving Virginia Deer herd has suffered grievously from several years of heavy snows. Perhaps the smaller snowfalls of 1957-58 and 1958-59 will permit a recovery. On the other hand, only a few years ago the club supported the Thunder Bay District Fish and Game Association in their efforts to continue a closed season on moose which were very scarce. Today the moose population is so high every effort is being made to harvest the surplus population before the moose deplete their food supply. Already there is evidence that many are affected by *E. granulosus* and *T. krabbei* cysts and by *Sarcocystis*. There is some indication that the few woodland caribou in the district are thriving and perhaps increasing in numbers. The beaver has increased to such an extent it is frequently a nuisance, despite heavy trapping and endemics of Tularaemia. The porcupine once abundant, is now

extremely scarce. Perhaps its decline is associated with the healthy state of the fisher. The Ontario Department of Lands and Forests reported 235 fisher taken in the Port Arthur District in the 1957-1958 season. There is evidence that the marten is present in increasing numbers for some 464 were reported taken in the same district in 1957-58.

Our readers may be surprised to learn that Ontario has a seashore on James' and Hudson's Bays. Recently south of Moosonee, the Ontario Northland Railway Express had its right of way disputed by a polar bear! The red fox is extremely abundant in Ontario, and coincident with this explosion in population, rabies has spread from northern Alberta south and east in a broad band to include all of southern Ontario where the disease has spread to cats, dogs and cattle as well as wild animals. For no known reason, the Lakehead has been free from rabies to date. If the disease should extend here, it will likely also spread into Minnesota. — *Regional Laboratory, Ontario Department of Health, Fort William, Ontario*

SUMMER SESSION BIOLOGY COURSE FOR GRADE TEACHERS OFFERED AT UNIVERSITY

Minneapolis — Eighty grade school teachers will attend a field course in biology at the University of Minnesota this summer as the result of a grant to the University from the Louis W. and Maud Hill Family Foundation in St. Paul.

The Minnesota Museum of Natural History will administer the $8,940.15 grant, which covers laboratory expenses for all participants. The botany and zoology departments of the college of science, literature and the arts will offer the course, and the arts college credits may be used toward a bachelor's degree in the college of education.

Water, soils, seeds, and local plants and animals will be studied, and the teachers will be taught to understand and use materials readily available in the community. Items such as a sun dial and herbarium will be constructed as learning aids in the course and can be used as teaching aids in the grade school classrooms.

Richard Barthelemy, research associate at the museum, will teach two sections of 20 students each during both of the University's summer sessions. A biology teacher, Barthelemy has worked as a naturalist for the Minnesota Division of State Parks.

Course consultant will be E. Lawrence Palmer, for many years supervisor of the Cornell Rural School Leaflets, natural history publications for elementary school children. University personnel representing fields related to biology will appear as visiting lecturers.

Advance application for the course is not required, and teachers of kindergarten through the sixth grade will be accepted on the regular summer session dates (June 16 and July 21) until the class limit is reached. Persons registering must have elementary teaching experience and a basic college biology course or the consent of the instructor.

The 1959 summer course in advanced ornithology at the University of Minnesota Biological Station at Lake Itasca will be taught by Professor Joseph Hickey of the University of Wisconsin. Dates for the summer session are June 15 through July 18.

Notes of Interest

WINTERING VIRGINIA RAILS IN MINNESOTA — On January 10, 1959 while birding at the Bass Ponds south of Minneapolis, Ronald and Harding Huber and I saw a Rail run along a stream and disappear in the weeds and brush. Giving chase, we flushed it and saw by its long bill that it was a Virginia Rail. We found where it landed and observed it feeding along the stream. On January 10 I again saw the bird feeding in the same spot.

On February 7, Robert Janssen, Brother Theodore and I returned to look for the Rail. We found it running along the stream and it disappeared in the weeds. We didn't have a good look at the bird and searched until we found it again. When we flushed it from its hiding place in the reeds another Virginia Rail also flushed and flew off in another direction, so there were definitely two different birds.

This is the first winter record of the Virginia Rail in Minnesota of which I am aware. It seems unusual for birds of this type to be able to endure the cold weather we have had this winter but the stream remained open and apparently furnished them with ample food. Other birds that stayed along this stream this winter were a Common Snipe, several Swamp Sparrows and about six Rusty Blackbirds. — *Raymond A. Glassel, Avifaunal Club, Minneapolis, Minn.*

* * *

HAWK OWLS — LAKE OF THE WOODS COUNTY — Five members of the Avifaunal Club including myself were driving south on state highway 72, 12 miles south of Baudette on January 12, 1959 when we sighted a Hawk Owl. It was perched 30 yards to our left on the east of the road and slightly in advance of the car. Forty yards to our right on the west side of the road, a Black-billed Magpie was moving about in a stand of low shrubs. This bird was slightly to the rear of the car so that we were situated almost exactly in a direct line with the two birds.

We had no sooner stopped the car when the owl left its perch, swooped low over the road (passing just behind the car), and attacked the Magpie. The encounter was quite brief and lasted only four or five seconds. Apparently the Magpie won the engagement because the owl retreated back the direction from which it came and disappeared from view. The Magpie, after regaining its composure, made off in the opposite direction into the bush.

This was the fourth Hawk Owl seen this day in Lake of the Woods County. Two others were observed in the Red Lake Game Refuge, two and four miles north of Norris camp. One appeared to ignore two pestering redpolls. A third Hawk Owl was noted perched in a tree beside state highway 11, seven miles west of Baudette. This bird was the tamest of the four, permitting approach to within 20 yards. All four owls were quite active on this, a bright, cloudless day. The temperature at 7:00 a.m. in Baudette, was -30°. All four owls were sighted between 8:00 and 11:00 a.m.

Two Hawk Owls seen in the same county in November 1958, make a total of six seen in this county in two days birding this winter. — *W. R. Pieper, Avifaunal Club, Minneapolis, Minn.*

* * *

BROWN THRASHER WINTERS AT DULUTH BANDING STATION — A very late Brown Thrasher was banded at my banding station on the 29th of October, 1958. The next day it repeated and it continued doing so since that date. Up to this date, January 24, 1959, it has repeated 352 times in 88 days. This Brown Thrasher is the first winter record for the Duluth area. — *Gary C. Kuyava, Duluth, Minn.*

WATERFOWL SEX RATIO — While accompanying Forrest Lee this spring on several field trips, we were able to accumulate some interesting sex ratio data on waterfowl, especially Lesser Scaup. I think that many readers of the *Flicker* would be interested in this information, so I have tabulated it as follows:

1958 SPRING SEX RATIOS

Species	*Dates*	*Males*	*Females*	*Percentage Ratio*
Lesser Scaup	April 11 and 13	311	96	77:23
Lesser Scaup	April 25	455	199	69:31
Lesser Scaup	Various	171	48	78:22
Totals		937	343	73:27
Blue-winged Teal	April 11 and 13	6	4	....
Blue-winged Teal	April 25	89	52	....
Blue-winged Teal	Various	3	3	....
Totals		98	59	62:38
Ring-necked Duck	April 11 and 13	48	28	....
Ring-necked Duck	April 25	2	1	....
Ring-necked Duck	Various	1	1	....
Totals		51	30	63:37
Mallard	April 11 and 13	19	12	....
Mallard	April 25	8	7	....
Mallard	Various	....	....	....
Totals		27	19	59:41
All Others	April 11 and 13	63	39	....
All Others	April 25	35	19	....
All Others	Various	....	....	....
Totals		98	58	63:37

— *Robert Jessen, Game Biologist.*

* * *

KENTUCKY WARBLER AT WHITEWATER STATE PARK — At the annual spring field trip of the Minnesota Ornithologists' Union on May 17, 1958 a Kentucky Warbler, *Oporornis formosus,* was observed by most of the members in attendance. A letter to Dr. W. J. Breckenridge added this interesting information: " . . . On May 22-23 the sixth grade from the practice school at Winona went on a camping trip to the group camp site at Whitewater State Park. On the morning of the 23rd, I took small groups up the stream. With the first group I heard a bird singing 'Tory, Tory, Tory,' a song that I did not know. Tracking the call and bird, I came up with a Kentucky Warbler. . . On May 30, the Dahms (Milton) and I went back . . . and (the) Kentucky Warbler was singing. Sincerely, Frank Kelley." — *P. B. Hofslund, Duluth.*

* * *

RING DOVES REAR MOURNING DOVE — On July 18, 1958 while boating on the Mississippi River near my home I found about an eight day old Mourning Dove floating in the river. It had apparently fallen out of a nest that overhung the river. It was thoroughly wet and almost dead. I took it home and placed it in the nest of one of my Ring Doves which had only one young of almost the same age. One of the parents began to brood the Mourning Dove at once and a short time later it was being fed and cared for with the Ring Dove.

Both young doves have since fledged and are now flying about our yard and garden with the adults. There are a great many Mourning Doves in the area, but the one raised in our cote seems to prefer to remain with its foster parents and stays especially close to its Ring-necked non-citizen brother. — *Al Grewe, St. Cloud.*

A REQUEST FOR INFORMATION — We have in Minnesota both Blue-winged Warblers and Golden-winged Warblers. These birds occasionally hybridize to produce the so-called Brewster's and Lawrence's Warblers, but only rarely has one of these hybrids been seen in Minnesota. They are quite common in some eastern states. Whitney Eastman asked the question, "Since the Blue-winged Warbler and the Golden-winged Warbler are no longer rarities here in Minnesota, why shouldn't we have both hybrids?" (*Flicker*, 30 (3):117).

To answer this question I would like to ask the cooperation of observers in this state in sending to me any observations of the two species of warblers or their hybrids. Particularly important would be observations on nesting birds or those present during June and July. At the present time it would seem that Blue-wings are seldom found except in the counties south and east of the Twin Cities, while nesting Golden-wings are found chiefly in the north. Thus, their breeding ranges do not seem to overlap to any great extent, although Blue-wings have been moving north somewhat in recent years.

Very few Brewster's Warblers have been seen in Minnesota, and since by the laws of heredity, we would find many of this hybrid for each typical Lawrence's, there is good reason for a lack of reports of the latter. The *Wilson Bulletin* for March, 1951, has a comprehensive article by Kenneth Parkes relating to this subject which anyone interested should consult.

Again, may I ask that anyone making observations on these birds send a note, including date and locality, to me. — *Wm. H. Longley, Kasson, Minn.*

* * *

AN AVIAN TUMOR — In late November, 1958, Glen B. Braatz of 1415 East Lake Street, Hopkins, Minnesota turned over to me the picked carcass of a duck which he had shot at the Carlos Avery Refuge and Public Hunting Ground. He stated that it was a hen mallard and that it had a large tumor on the left leg.

When I first saw the bird, the tumor had been removed from the leg. It was identified by Dr. R. Fenstermacher, Division, Diagnostic Laboratories, College of Veterinary Medicine, University of Minnesota, as a chondrosarcoma. This is a type of tumor in which cartilaginous cells are developing.

The tumor measured 70 mm. x 55 mm. x 40 mm., and weighed about 113 grams. It appeared to be bigger and heavier than the leg from which it had been removed. It must have encumbered the bird considerably.

Dr. Dwain Warner of the Minnesota Museum of Natural History studied the skeleton of the bird and identified it as being either that of a mallard or a Black Duck. — *Arnold B. Erickson, Minnesota Division of Game and Fish, St. Paul, Minn.*

* * *

THREE TUFTED TITMICE SPEND WINTER IN DULUTH — Of all the winters which a southern species picked to come to Duluth, three Tufted Titmice picked one of the coldest on record. On a cold, wintery day early in November, 1958, Dr. and Mrs. Anderson Hilding of 421 North 36th Avenue East saw what they believed to be Tufted Titmice feeding at one of the several feeders in their yard. On November 19, Robert R. Cohen and I went to the Hildings' home to verify their report. We were fortunate enough to see three birds several times after a short wait. These birds were seen by many members of the Duluth Bird Club since then. The 1958 Christmas Census was fortunate enough to be graced by their presence. They were still present at the Hilding home on the date which this note was written, January 23, 1959. — *Gary C. Kuyava, Duluth, Minn.*

GREAT BLACK-BACKED GULL SEEN ON THE NORTH SHORE — On January 5, 1959, I was fortunate enough to see a bird of this species about two miles west of French River. The Great Black-backed Gull was accompanied by approximately 75 Herring Gulls. The bird was positively identified. The large gull flew alongside the car at a distance of about 50 yards for over one-half of a mile. Accurate comparisons were made with the Herring Gulls which accompanied it. This gull stood out like the proverbial "sore thumb." This is the second sight record of the Great Black-backed Gull for the state of Minnesota. The first was seen in the same general area as the second about 10 years ago. — *Gary C. Kuyava, Duluth, Minn.*

* * *

ADDENDA TO ORNITHOLOGICAL HISTORY OF MINNESOTA — An appendix to an article of history would naturally relate of events that occurred after the main article was written or published. This memo will be an exception to that rule, for while it appears as an appendix, its purpose is to enlarge upon and add clarity to the original.

In a paper I presented at the annual meeting of the Wilson Ornithological Society at Duluth in June 1957, which was later printed in the March 1958 (Vol. 30, No. 1) issue of the *Flicker*, the following statement appears on page 11:

> "During this 20-year period which we have just touched upon (1917 to 1937), three bird clubs were organized in the state. . . "
>
> "The first of these was the Minnesota Bird Club, organized at Minneapolis March 15, 1929."

This statement is historically correct, but it could lead to the erroneous conclusion that I was claiming this to be the first bird club organized in Minnesota, which was not intended.

The paper presented at the Wilson meeting had a 15-minute time limit and a detailed history of all our bird clubs was impossible to include in that short paper. Hence, the three clubs that later became the nucleus of the Minnesota Ornithologists' Union when it was organized were mentioned rather briefly, giving date of organization and the names of the first officers, etc.

I am indebted to Mrs. T. A. Peppard, historian of the Minneapolis Audubon Society for information leading to further research and information which it would have been well to have added to my article before it was released for publication.

The first bird club organized in Minnesota was undoubtedly the Minneapolis Audubon Society. According to an article by Gustav Swanson which appeared in the March 1941 (Vol. 13, No. 1) issue of the *Flicker*, the Minneapolis Audubon Society was formed March 10, 1915, 14 years earlier than the Minnesota Bird Club. The first officers of the Minneapolis Audubon Society were: Mrs. Wyman, president; Mrs. Frank Commons and Mrs. Charles Keyes, vice presidents; Mrs. J. H. Hayden, secretary; and Miss Mathilda Holtz, treasurer.

The Minneapolis Audubon Society appears to have been not only the first but, according to Mr. Swanson, one of the most active and influential of the state clubs. Sponsored by a Minneapolis women's club at its inception it later became an independent organization that, among other activities, assembled a collection of bird skins exceeding 1,000 specimens and was identified with a great number of other activities. It became affiliated with the Minnesota Ornithologists' Union in November 1940. — *O. A. Finseth, Duluth*

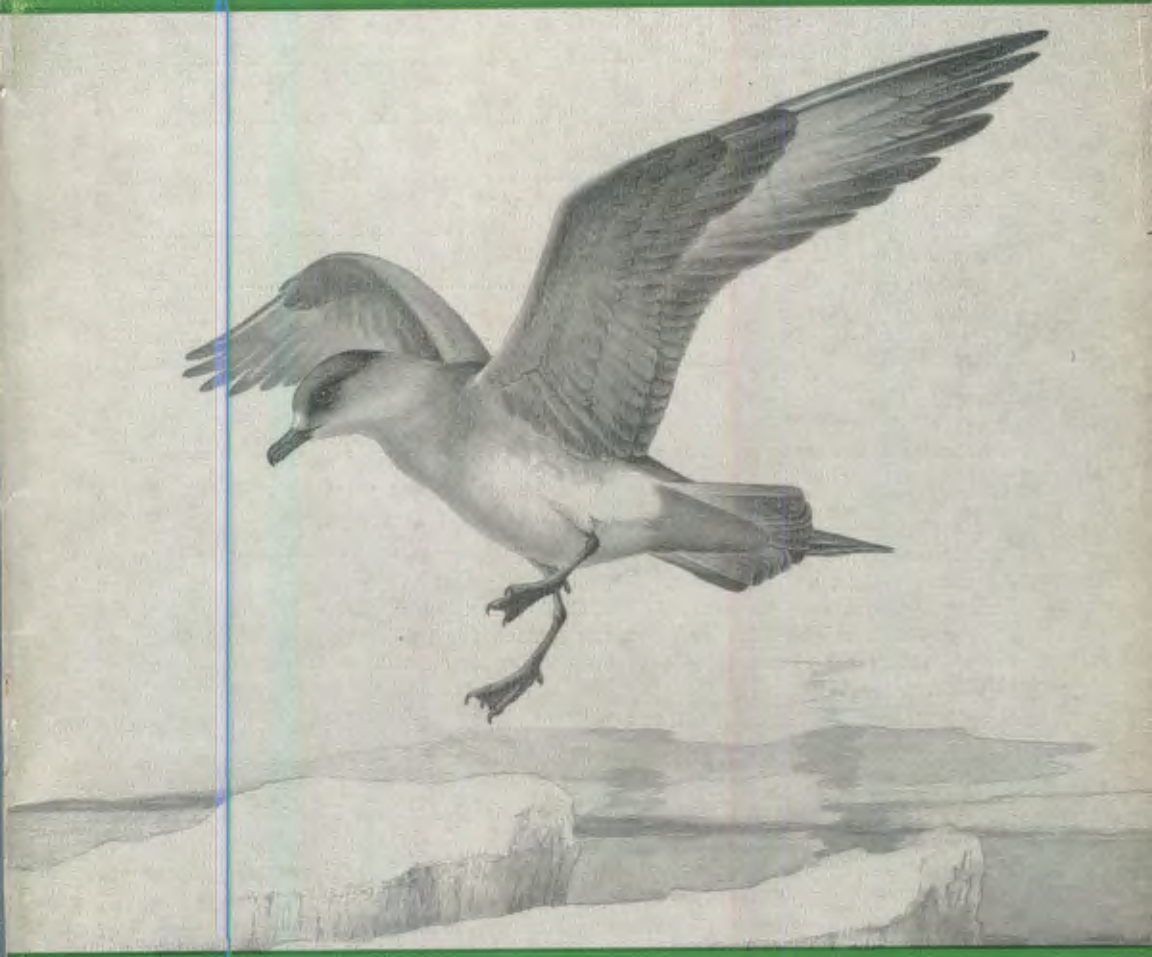
BLUE-WINGED TEAL, BANDED IN MINNESOTA, RECOVERED IN MEXICO — Nearly each trip to Mexico made by members of the University of Minnesota Museum of Natural History is enhanced by the recovery of one or more bird bands. Local hunters often do not understand the value or meaning of the bands and keep them only as curiosities until an interest is shown in them by visiting biologists.

In November 1958 while visiting the Tlacotalpan region of Southcentral Veracruz, two bands taken from Blue-winged Teal were presented to a group from the Museum. One of these was banded as an immature male by the Minnesota Department of Conservation at Roseau River Refuge, August 22, 1956. It was reported to have been taken December 1957 by Sr. Ramon Roca. The second band was from a female Blue-winged Teal banded five miles east of Delburne District, Alberta, Canada, July 31, 1956. It was recovered by Sr. Jose Romero Sequeda, October 1, 1958. *Robert W. Dickerman, Minnesota Museum of Natural History, University of Minnesota, Minneapolis 14, Minnesota.*

Please send records and reports for the Seasonal Report to Mrs. Mary Lupient, 212 Bedford St. S.E., Minneapolis 14, Minnesota. They should be received on or before the following dates: October 27, January 27, April 27 and July 27.

The Flicker

VOLUME 31 JUNE 1959 NUMBER 2



PUBLISHED QUARTERLY BY
THE MINNESOTA ORNITHOLOGISTS' UNION
PERMANENT ADDRESS
MUSEUM OF NATURAL HISTORY
UNIVERSITY OF MINNESOTA
MINNEAPOLIS, 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.

President — Dana Struthers, Box 356, Route 5, Shady Wood Road, Wayzata, Minnesota

Vice President — Douglas Campbell, 3005 W. 54th Street, Minneapolis, Minnesota

Secretary — Miss Amy Chambers, 1005 Portland Avenue, No. 312, Minneapolis, Minnesota

Treasurer — Mrs. Mary I. Lupient, 212 Bedford Street, SE, Minneapolis, Minnesota

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

Associate Editors — Dwain W. Warner, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota, William H. Marshall, Division of Entomology and Economic Zoology, University of Minnesota, St. Paul, Minnesota, and Rev. Forrest V. Strnad, Kasson, Minnesota

THE COVER

Watercolor painting of the normal plumage of the PARASITIC JAEGER done by W. J. Breckenridge from field color notes made of Minnesota Museum of Natural History, Specimen No. 7974 taken at Churchill, Manitoba, August 18, 1933.

THE PRESIDENT'S PAGE

With many people birding is an avocation, and the amount of birding done is largely dependent on the amount of leisure time one has available. Some, such as students, retired people, and a fortunate few have more time. With these people, birding gives them a hobby that is constructive, as well as enjoyable. Others who might not have as much time available for birding find that being outdoors is a release from the pressures of their everyday jobs. A knowledge of wildlife adds immeasurably to the enjoyment of other outdoor activities, such as hunting, fishing, and photography.

The amateur ornithologist can carry on his hobby with a minimum of expense. A pair of binoculars and a field guide are the only basic requirements. If one cares to go further into the field, he can extend his equipment into spotting-scopes, cameras, and an extensive library. Whether a field trip involves a walk around the neighborhood pond, or a trip into the Arctic Tundra — each has its commensurate rewards.

The professional biologist, whether he is a school teacher, works in a museum, state conservation department, or similarly related fields generally does not have the time to keep adequate records on other than his specific projects. The amateur biologist on the other hand can keep extensive records of what he does see, and it is important that these be accurate and detailed. To get the complete picture it takes the coordinated effort of the amateur and professional ornithologist.

Ornithology as in the other sciences is a cooperative, and not a competitive project. It is the result of this comprehensive effort of all parties combined that make up the essentials of the great works such as Roberts' "Birds of Minnesota" and Bent's "Life Histories."

Our *Flicker* gives all of us an opportunity to contribute the results of our observations and studies to professional, as well as, the amateur ornithological records in a permanent and lasting form. The articles provide a place for a more comprehensive story, while the Notes of Interest give us a place to record the unusual in factual form.

Dana R. Struthers

The Jaegers of Minnesota

by

Robert W. Dickerman

I can think of no other bird that would be more stimulating to see on a brisk fall day in Minnesota than a jaeger. Whether the day be sunny with a western breeze along the edge of a prairie slough in Pipestone County, or overcast with the first flurries of snow on Minnesota Point in Duluth, the sight of a jaeger would lend excitement. The moment would be a challenging one for the watcher would be confronted with the incongruous situation of observing a bird whose generic identity would be obvious, yet, whose specific identity might well be indeterminable in the field. This is an uncommon situation among North American birds.

There are few birds more distinctive in color pattern than adult jaegers in the light color phase. There are very few more distinctive in shape than an adult Long-tailed Jaeger with its long attentuate central rectrices, or the larger Pomarine Jaeger (between a Ring-billed and Herring Gull in size) with distinctive rounded ends on its central rectrices. However, with adults in the dark color phase or birds in immature plumage, even the closest attention to detail at the closest range may not reveal the correct identity of a bird in the field. Even an adult may have poorly developed tail characters and its true identification would be missed. Normally, the central rectrices of a Long-tailed Jaeger project 6 or more inches beyond the end of the tail, but they may project less while the central rectrices of a Parasitic Jaeger may project as much as four inches. The difference could not be judged with a single bird in flight.

In the University of Minnesota Museum of Natural History there are four Minnesota specimens of jaegers, three in immature plumage. Dr. Robert Cushman Murphy kindly examined the immatures and identified them. All three had been labeled *Stercorarius parasiticus*, the Parasitic Jaeger, but one proved to be *S. longicaudus*, the Long-tailed Jaeger.

The specific identification of a specimen of this group in the hand involves the use of keys prepared by people with long familiarity with the group throughout its world wide range. Dr. Murphy's work, *Oceanic Birds of South America* (1936, p. 1035) provides us with such a key. "The bill character by which *S. parasiticus* and *S. longicaudus* are said to be distinguishable proves in some instances indecisive. However, all three species of jaegers, in practically any plumage after the loss of down, can be reliably identified by the following excellent key compiled by Wetmore.

a¹. Bill higher than wide at base; wing usually more than 350 mm.; in adult the middle pair of rectrices broad throughout, twisted ..... *S. pomarinus*

a². Bill not higher than wide at base, wing less than 345 mm.; in adult the middle pair of rectrices straight. ..... b.

b¹. Length of horny cere (supranasal saddle) decidedly greater than length of detrum hook of the bill; tarsi and feet black, three or more outermost primaries with shafts ivory yellow. ..... *S. parasiticus.*

b². Length of horny cere (supranasal saddle) not greater than length of detrum; tarsi wholly or in part light in color, feet black; only two outermost primaries with shafts

ivory yellow (the shaft of the third sometimes light, but with a brownish tinge) .....*S. longicaudus.*"

Notice that the key does not mention the length of the central rectrices which are considered the most diagnostic field character between the Parasitic and Long-tailed Jaegers. Undoubtedly, this is left out because of the individual variation found in this character. In the field the number of primaries with light shafts, and those with a brownish tinge would be most difficult to observe, to say nothing of the parti-colored tarsi of *S. longicaudus.* R. T. Peterson's *Field Guide to the Birds* does mention these characters but these are probably for use in identifying birds found dead.

The inland distribution records of jaegers are scattered although they come mainly from large bodies of water, especially the Great Lakes. Since the publication of *Birds of Minnesota* (T. S. Roberts 1932, 2nd Ed. 1936) several sight records have been published in *The Flicker* and two additional specimens have been added to the University Museum's collection. An attempt is made to summarize and evaluate the records to this date.

Pomarine Jaeger: There is no record of this species for Minnesota although specimens have been taken in Iowa, Wisconsin (Madison, 1 July, 1942) and South Dakota (Madison, 7 October, 1932). The American Ornithologists' Union, Check-list of North American Birds (1957) mentions records from Green Bay and Lake Koshkonong, Wisconsin. Certainly this species is to be looked for and will eventually be added to the Minnesota checklist.

Parasitic Jaeger: This species is considered to be the most common and the records for it are the most confused. There are two specimens of the Parasitic Jaeger in the University Museum collection. One was reported in *Birds of Minnesota* 1932: it is an immature taken at Heron Lake (Jackson County) September 8, 1916. The second is a fragmentary specimen comprising the head, and wings of a bird found at Pipestone. The bird lay in the road for several days before it was brought to Alfred Peterson, September 18, 1936, who forwarded it to Roberts that same day.

At least five sight records of "Parasitic Jaegers" have been published in *The Flicker.* Unfortnately, none of them may be accepted as a record for any one species of jaeger. However, they do record the occurrence of jaegers in Minnesota in the months of April, May and September.

Lewis L. Barrett (Flicker, 21:118, 1949) reported seeing a bird May 21, 1949 75 yards away "quite dark and hawk-like . . . the central feathers were pointed . . . and appeared a few inches larger than the rest of the tail." He also mentioned a "Parasitic Jaeger" seen by Mrs. Judson Wicks in the Minnesota River bottoms at Minneapolis, April 9, 1939 and a record by John Dobie and Lloyd Smith of a bird they thought to be a Parasitic Jaeger at Lake of the Woods, September 6, 1944. No further details are given in any of these cases.

The best descriptive sight record of a jaeger was by Al Grewe (Flicker 30:38, 1958) observed at Crex Meadows, Burnett County, Wisconsin, August 28, 1957. His description fits that of an immature jaeger very well; but, as discussed above, a bird sitting on the water with its feet hidden and wings folded would be impossible to identify at the 50 yard range from which this bird was observed. Forest Strnad and others in the same issue described "three large dark birds . . . middle tail feathers of these birds extended beyond the curve of the tail . . ." seen at Minnesota Point, Duluth, September 15, 1957.

Undoubtedly some of these records, if not most, do apply to the Parasitic Jaeger, but they cannot be considered as

specific records on the basis of the information given. All must be considered "jaeger species."

The AOU Checklist (1957) does not mention Minnesota specifically but lists this species as "Casual in the Great Lakes (occasionally in some numbers)" (p. 214). The records for the extreme southwestern corner of the state are not mentioned.

Long-tailed Jaeger: This species is generally considered even more rare in the upper Midwest than the Parasitic Jaeger. In part this may be due to a confusion of records between the two. There are two specimens of the Long-tailed Jaeger in the University collection. One reported by Dr. Roberts is an adult taken at Warren, Lac Qui Parle County, Minnesota, July 1, 1898. A second specimen originally labeled "parasiticus" is an immature female taken at Heron Lake October 4, 1942.

The only sight record of the Long-tailed Jaeger accepted by Roberts, who was most critical of this type of record, was November 16 and 17, 1934 as reported in *Birds of Minnesota* (1936). There is, of course, a probability that some of the sight records of the "Parasitic Jaeger" really belong under this species.

If this review seems overly strict and somewhat pedantic in the evaluation of sight records, it serves to emphasize the caution and extremely close attention to detail that must be used in identifying jaegers. When you are in the field next "jaeger season", have persistance. Look for confirmatory characters in adult birds other than the length and shape of central rectrices.

The Long-tailed Jaeger has no pectoral band or downward extension of dark coloring on the sides of the breasts; it has little or no white on the underside of the wing; its back is somewhat paler in front forming sharper contrast with the nearly black crown when compared with the Parasitic Jaeger. The Pomarine Jaeger may be separated by its larger size when gulls are close at hand for comparison. Careful observance of a bird which cannot be identified may yield a greater reward in pleasure than one that can be recorded at first glance.

Summary

1. Jaegers in immature and dark-phase plumages are exceedingly difficult to identify in the field. The Pomarine Jaeger is larger in size. The Parasitic and Long-tailed are nearly impossible to distinguish in these plumages. In some cases it is best to list jaeger species than to use a specific name. A key to identification is given.

2. The records of the three species in Minnesota and surrounding states are reviewed. All of the previous sight records of the Parasitic Jaegers in Minnesota are judged unacceptable since they may have been confused with the Long-tailed. The Pomarine Jaeger has not been found in Minnesota although it has been taken in states on three sides.

3. Most of the records of jaegers are for September with one record in April and two in May. — *Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*

DULUTH HAWK COUNT

The annual Duluth Hawk Count will take place on September 12 and 13 and the 19 and 20. Jack Hofslund of the University of Minnesota, Duluth Branch has recommended that people interested in seeing the hawks at Duluth should be there on the week end of the 19th and 20th. These dates have been the most successful ones in the past. — *Editor.*

Suburban Housing Project Booms — Bluebirds Utilize New Homes

by

Forest V. Strnad

Many people talk about seeing fewer bluebirds nowadays. We decided it was a case of low "income", or else there was a need for more housing. So William Longley and I started a low income housing project strictly for the birds, hoping to find the answer.

On a visit to Kasson at Christmastime, 1956, I was able to secure a number of pieces of scrap lumber from the lumber yard where my father works, and from the stores in Kasson, we got fruit boxes. That was our lumber supply.

It may surprise you to know how long it took us to build our first 25 bird houses. Beginning one evening, it took us about 1 hour to settle on a pattern and to determine how to best utilize the wood. Using mass production methods, we had nearly finished in 1 evening, plus a couple of hours the next day.

The design for the houses was as simple as we could make it, with as few saw cuts as possible and eliminating unnecessary frills. No hardware was used, other than 12 to 16 galvanized nails (8-penny box). The dimensions were SIDES—9" x 5" with a half inch slope toward the front on the top edge: FRONT—6" x 8½": BACK—About 4 inches longer than the front, extending above and below the front to provide space for nailing or wiring the box to fence posts. The BOTTOM was cut to fit inside the box and held by 2 to 4 nails. The ROOF extended over the sides and front and was held by 2 nails only. For this reason it could be easily removed and replaced when we inspected the contents of the box. The entrance was 1¼" in diameter and 1½" from the top.

Making the bird houses was a simple project compared with determining where to locate them. Rather than putting them along the road where they might be easily molested by unthinking persons, we decided to place them off the road along pasture fence lines. The first boxes were put up on March 27, 1957. Sixteen were located on one farm but separated into 2 groups of 8 in 2 pastures. Group II consisting of 8 boxes was located about a mile north of Group I. The 25th box was isolated midway between the two groups. All 25 boxes were in Mantorville Township, Dodge County, about 2 miles northeast of Kasson.

All were near wooded pasture and in the open which increases their attractiveness to bluebirds.

We were more than pleased with the reception our housing project received from the birds. Only 1 was not used at all. Two were used only by House Sparrows. The other 22 produced 12 broods of Bluebirds and 18 broods of House Wrens, totaling 44 young Bluebirds; 92 young Wrens. We destroyed 6 nestings of House Sparrows, hoping to help out the Bluebirds.. Most of the houses were used more than once, and 2 produced 3 broods apiece.

Bluebird nesting began in late April and was finished by mid-July. Wren nesting began a month later and was finished by late August. It seemed apparent that boxes along the edge of cornfields were used by Wrens only after the corn became tall enough to

provide a lot of cover, for boxes adjacent or within woods were used earlier.

Nest success was very good this first year. The only disturbance came from cattle which bothered a couple of boxes when they used them for rubbing posts. We relocated 2 boxes to get them out of the way of the cattle.

In early 1958 we constructed 20 more houses. Only one change was was made. The roof was *not* extended over the sides. We felt that cattle would be less apt to knock off the top if there were no projections to catch upon. We also determined not to allow the house to project out into the pasture from the post but to align them with the fence-wire rather than at right angles to it.

Nine of the new houses were put out approximately 1 mile southwest of Kasson. Twelve houses were put out on another farm 2 miles southeast of Kasson. The habitat in these areas was very open; there were no woods in the vicinity but only a few scattered trees. This difference in habitat made quite a difference in the use of the houses.

The total number of houses in the project in 1958 was 44, since 1 had been stolen during the winter. The results for the second year were not as good, but we still produced a lot of birds, and 2 new species moved in. Eleven broods of Bluebirds, 15 broods of House Wrens, 4 broods of Tree Swallows, and 1 brood of Red-headed Woodpeckers were produced. This totaled 132 young birds, 45 Bluebirds, 65 House Wrens, 20 Tree Swallows, and 2 Red-headed Woodpeckers. We say the results were not as good in 1958 because in 44 boxes there were only 31 nestings as compared with 36 nestings in 25 boxes for the preceding year. A more exact comparison might be to use the data from the 21 boxes which remained in the same place both years.

In these houses the number of nestings dropped from 28 to 23. Bluebird use dropped from 12 to 10, no doubt because of interference from cattle. Three clutches were abandoned when the tops of the houses were knocked off. Wren use dropped from 16 to 12, possibly because of cattle interference and probably because there were changes in the pasture pattern and many more cattle were present in one pasture, but there was another reason, egg clutch size.

The average clutch of eggs for wrens in 1957 was 5.4 and it dropped to 4.5 in 1958. Clutches of 7 and 8 eggs were found commonly in 1957, while 6 was the largest in 1958. Cool weather early in summer and dry weather later on seemed to cause a shortage of insects in the second year, and this might have affected the wrens.

The decrease in nesting persistence in 1958 shows well in the number of times most boxes were used. Not counting House Sparrows (none having been considered in any figures given previously) 9 boxes were used 2 to 3 times in 1957, but in the following year none was used three times and most were used only once. The newer boxes put out in 1958 were also used not more than once each.

Perhaps the most unusual nesting was that of the Red-headed Woodpecker. The nest was discovered on July 4. The 2 young were featherless and about half-grown. Their skin was dark gray. The nest provided by the adults was only a bit of a depression chipped out of the bottom of the box. The nest material consisted only of a spoonful of chips from the box. The nestlings were well-feathered 3 weeks later.

In 1957, 31 Bluebirds and 31 House Wrens were banded in our houses by Carl Johnson of Rochester. In 1958, I banded 48 Bluebirds, 37 House Wrens, 3 Red-headed Woodpeckers, and 10 Tree Swallows. Eight of these were adult birds which were caught on the nest. Carl Johnson and Scott Finley, of Sioux Falls, South Dakota, banded 4 Tree Swallows. Thus there were 102 birds banded in 1958 in our housing project.—*Kasson, Minnesota.*

Comments On Winter Invasions Of Birds

by

Robert W. Dickerman

To ornithologists and amateur field observers alike, one of the most fascinating features of the winter seasons in northern and central United States is the irregular, often widespread, invasions of arctic, subarctic, or boreal birds. These erratic intrusions are characteristic of a relatively few species and occur in the north temperate latitudes around the world. Historically they have been observed and reported since at least the thirteenth century. The literature on this type of movement would fill a small library.

Probably the best recent discussions on avian invasions are in a chapter entitled "Irruptions" in David Lack's book, *The Natural Regulation of Animal Numbers* (1954), and in a paper by Gunnar Svardson (1957), "The 'invasion' type of bird migration." Although most of the examples they discussed were drawn from the European literature, in which there are a number of beautifully detailed studies, they mentioned several species of birds also found in Minnesota: Bohemian Waxwing, Pine Grosbeak, Common Redpoll, Red Crossbill, White-winged Crossbill, Gray Shrike, Snowy Owl, and Rough-legged Hawk. The first five are typically irregular in their occurrence far outside of their breeding ranges, while the last three named tend to occur in large numbers every fourth year.

Lack poses two possible causes of these invasions. The first is a shortage of food. Several species that come south at irregular intervals are dependent on specialized foods. The Bohemian Waxwing, for example, needs fleshy fruits in the winter periods (in the summer it is insectivorous). On the other hand, such birds as the Red and White-winged Crossbills depend on the seeds of spruce, fir and pine the year round.

Erratic invasions have an obvious survival value in allowing large populations to utilize substitute foods which carry them over periods of shortages in their normal haunts. It is easy to understand that deep, widespread early fall snows send such ground feeders as Snowbuntings and Redpolls southward to areas free of snow, or to places where there is an abundance of seed-laden weeds projecting above the snow. Evidence of the importance of food influencing the number of Red Crossbills was published by Reinikainen (1937) and cited by Lack (*op. cit.*). Every Sunday in March for 11 years, Reinikainen skied over 120 kilometers of forest land in Finland. He counted the Red Crossbills he saw and noted the abundance of spruce cones. The numbers of each went up and down in unison suggesting that the number of Crossbills was dependent upon the number of spruce cones. (Fig. 1)

A second factor is population size. In northern latitudes, weather, food supply, and, consequently, the success of the breeding season vary greatly from year to year. A series of two better than average breeding seasons with mild weather and abundant food might allow a population to increase its numbers several fold. When numbers reach a certain critical level, massive movements may start. By these out-floodings, populations of certain species may be entirely removed from an area. Davis and Williams (1957) made a study of irruptions of Clark's Nutcracker in California, combining data on winter influx of birds in the valleys and counts

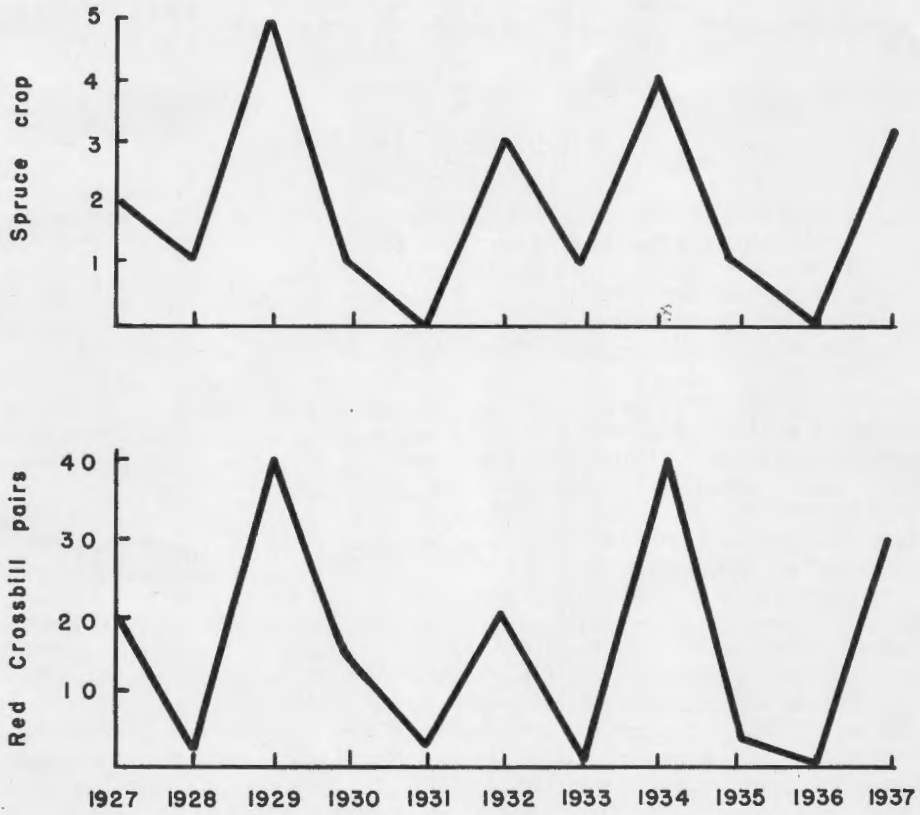

Fig. 1. Relationship between abundance of Red Crossbills in pairs per 120 kilometers, and abundance of spruce cones estimated is 6 classes of abundance. (from Lack 1954 after Reinikainen 1937.)

of cones in the mountains. They came to the conclusion that movements were due to high populations built up in two or more particularly favorable breeding seasons followed by a poor cone crop in the autumn. They mentioned that fall movements began before October 7, but did not state specifically that this early movement was caused by food shortages. There are excellent examples of long distance movements taking place before food shortages could probably have been apparent. For example, five specimens of the Red Crossbill population from the Pacific coastal ranges of British Columbia and southern Alaska were taken in Minnesota during July and August, 1922 (Dickerman 1957).

"Lack . . . placed food shortage, whether absolute or relative, as an ultimate factor, while the proximate factor, releasing the actual flight was supposed to be the high number of birds." (Svardson 1957, p. 314). Svardson differs from this interpretation. He believes that irruptive species start a movement every year that is released by the same factors as ordinary migration. The duration and extent of the movement depends on the finding of a rich food supply. Thus, each year some species such as the Pine Grossbeaks, Common Redpolls and Snow Buntings, move into

the northern part of Minnesota, while only irregularly are these species found in numbers in the southern part of the state. Invasion is an adaptation to annual food shortages, whereas migration is an adaptation to seasonal food shortages.

Svardson suggests that the rhythm of fructification of some perennial plants, the cyclic abundance of certain mammals, and the invasion type of avian migration form one great ecological complex of mutual adaptation. Irregularity as to species involved, extent of movement, or frequency of occurrence is characteristic of invasions. In Europe, they are made up of a high percentage of juvenile or immature birds.

Anyone who has been looking at birds during the last two or more winters in Minnesota will attest to the irregularity of these movements both in occurrence and extent.

Not only is the occurrence of any one species irregular, but there is no group of species which reacts to the same conditions. A major influx of northern forms may occur in one part of the country and not in another. James (1958) summarized the assembled records of some of the irruptive species in "Audubon Field Notes." With the uncritical and heterogeneous type of sight records he had to work with, he presented an interesting and useful table of the occurrence of a number of species over a 20 year period. In this type of reporting the unusual occurrences tend to be over emphasized and invasions of minor size are probably magnified slightly in importance. However, records of this type are in many instances the only ones made and some invasions probably not recorded. The "fairinvasion" (terminology of James) of Hoary Redpolls in Minnesota in 1957-58 is not recorded in "Audubon Field Notes" although several sight records were made and at least one specimen was collected for verification of identification. The major countrywide Red Crossbill invasion of 1950-51 was recorded in Minnesota by the preservation of only four specimens, all found dead, and by two published sight-records.

The extent of movement can be determined in some species in which different geographic populations are identifiable, morphologically. The most easily recognized subspecies of the Red Crossbill from the coastal ranges of British Columbia and southern Alaska is also the most dramatic wanderer. In the winter of 1950-51, this form was common in Central New York (Parkes 1952 MS), and was taken in Kansas (Tordoff 1951) and Arizona (unreported); its movements from the breeding areas having encompassed an arc of about 60 degrees and distance of 1500 to 2500 miles. Such incongruities occur as Lapland Longspurs in Florida, and Redpolls in Bermuda (AOU Checklist 1957). The yearly variation in winter distribution

of semi-hardy birds such as Robins, Blackbirds and Song Sparrows is well known. In severe winters they are rarely found in Minnesota, while in open winters such as 1958-59 they remain more common. Conversely, some species such as Snow Buntings and Common Redpolls regularly migrate southward to some extent, but are irregularly involved in extensive southern flights. Major movements of what are normally considered to be sedentary forms occur less often, but are dramatic at times. They are also harder to detect since the movement is usually directed into other areas containing the same species, and so the invaders are not noted as such. Poor (1946) assembled data on an invasion of Black-capped Chickadees from a number of banding stations in the New York City vicinity. One station on Long Island with nine years of records experienced a 176 per cent increase in number of unbanded birds in the influx of 1941-42. There was also a higher than normal return of previously banded birds. These data suggest a greater survival of old birds (hence a greater breeding population the previous spring). The invasion was widespread, reaching westward at least to Ohio.

Occasionally species which are considered to be regular in their migrations are involved in these erratic flights. Eastern subspecies of the Summer Tanager, Yellow-bellied Sapsucker and Brown Creeper taken in Arizona (AOU Checklist 1957), far from their "normal" winter range are dramatic illustrations of this.

Three species, the Snowy Owl, the Gray Shrike and the Rough-legged Hawk have been described as occurring periodically in large numbers. The evidence for the latter species has best been demonstrated in Europe (Lack *op. cit.*) The chart prepared by James (*op. cit.*) beautifully illustrates the periodic nature of the occurrence of Snowy Owl and Gray Shrike. The relationship of the cyclic sparsity of lemmings at Churchill, Manitoba and the occurrence of Snowy Owls in the New England States was graphically presented by Shelford (1945) (Fig. 2.). His data covers nine years before the start of James' table and includes three owl invasions.

The postulation that invasions are made largely by young birds is not substantiated by material available from Minnesota. During the occurrences of Pine Grosbeaks of 1957-58 and 1958-59 27 specimens were collected. Sixteen of these are males, with an age ratio of

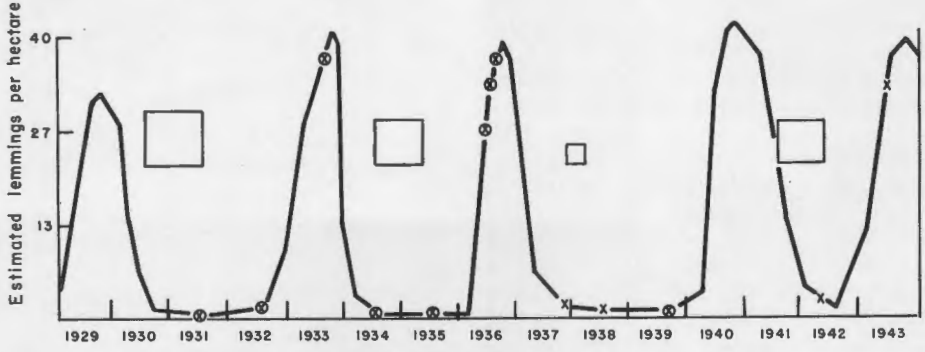

Fig. 2. Estimated abundance of collared lemmings at Churchill, Manitoba in numbers per hectare (2.5 acres), and periods of occurrence and magnitude (size of box) of Snowy Owl flights as recorded in New England (squares). x =reports; o = trapping records and reports. After Shelford 1945.

10 adults to 6 immatures. This age ratio is skewed somewhat in favor of adult males which are easiest to work with in taxonomic problems on this species. However, in this case the number of adult males taken in preference to the green-plumaged immature males and females is known to be small. In the University Museum of Natural History collection there are 39 male Redpolls taken over a nearly 65-year period. Of these, 21 are immatures and 18 are adults. Again there may have been some selection for the adult males, but this age ratio is far from several immature birds to each adult as has been found in other species in Europe.

There are many instances in which emigrations have actually extended breeding ranges (if only for one season), or have established new ranges. Lack (*op. cit.*) cites instances of the Red Crossbill establishing itself in Ireland in the 19th century and in East Anglia (Norfolk, Sufolk, England) in the 20th century as a result of irruptions of populations of the continent. The Fieldfare, an Old World form of robin, colonized Greenland during an extensive invasion of 1937. In the eastern United States, the same species has remained and nested following invasions in Maryland, Indiana, and Ohio (Griscom *op. cit.*). In Arizona, the Red Crossbill is absent from certain southern mountain ranges for years and then will appear and breed for two or more years successively.

The study and analysis of the mechanisms of the invasion type of avian migration is a fascinating field. Ideally, every flock of a species which is variable geographically, such as the Red Crossbill, Common Redpoll, and Pine Grosbeak, should be sampled and the specimens preserved. From these specimens, food studies should be made. Field observers have the job of making more accurate and detailed records from day to day. The challenge is great; it involves tedious work; but to those with a will to contribute, it is worth while.

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—*Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*

Photo story contributions needed — readers are urged to submit prints of any photos suitable for use as a photo story feature in *The Flicker.* — *Editor*

The Minnesota Bird Banders

by

Carl Johnson and Forest V. Strnad

The bird banders of Minnesota were invited to a special demonstration project at Rice Lake, Dodge County, near Claremont on May 2nd and 3rd. The purpose of the project was to demonstrate the proper use of Japanese mist nets and approved methods of removing birds from these nets.

Rice Lake is a shallow, mud lake probably not over 12 feet in the deepest area and with an average depth of approximately 3 feet. The east shore of the lake, where the demonstration was carried on, has cattails and reeds but these were not up at this early date, although the old stalks were there from last year.

The main characteristic about these 2 days, weather-wise, is that it was windy. A 25 - 30 mile per hour wind blew most of the time both days out of the southwest. The sky was partly cloudy and often overcast. It rained a bit on both Saturday and Sunday. The project was started around 8:00 a.m. on Saturday when the first net was erected and carried on until dark. Sunday the nets were spread, for they were left on the poles over night and were not taken down until nearly dark, which was about 7:00 o'clock.

The most nets that were erected at one time was eight. These varied from 18 foot 1¼ inch mesh to 40 foot 3 inch mesh nets. These nets were erected on 10 foot electric conduit poles. To facilitate carrying these in the back of station wagons the poles were cut into the lengths of 5 foot each. They are rejoined by inserting an iron rod in one end and anchoring it by an indentation in the pole with a nail-set. The top piece fits over the projecting end of the iron rod. The mist nets are hung on 5 nylon strands of cord the length of the net. At each end is a loop of heavier material which is looped around the pole twice or three times to keep it from sliding down the pole. The netting between these strands of material, or lands, is fuller than the allowed distance that these strands are spread up and down the pole, thus permitting a bird to enmesh itself in the basket formed of the netting material. A bird may enter this net from either side.

To remove the bird you first begin with the feet and disentangle them from the net. If a person wants to learn the grace of patience this is one place to learn. You know that a bird got into the net and therefore there is a way to get it out without cutting the net. In fact, it is more difficult to remove the bird if you do cut the net for then you have to take the net off the bird's body. After the feet are removed the net is slipped off the shoulders of the bird's wing and lastly over the head. What often appears to be a hopeless mess is easily untangled if these three steps are followed in that order. Beginners always seem to want to disentangle the head first, perhaps because of a personal feeling of suffocation. But, since the head entered the net first it must be the last part of the body that is removed. The process is simple once it has been observed and understood and there is little danger of injuring the bird if the nets are checked every hour or more often so that the bird does not struggle for a great length of time. The longer the bird is left in the net the more likely it is to become "hopelessly" entangled.

Banders who participated in the project were Scott Finley, Sioux Falls, S.D., Boyd Lien, Minneapolis, Mrs. E. R. Selnes, Glenwood, Carl Johnson and your writer.

A summary of the birds banded for the two days shows a total of 78 birds of 15 species. One Short-billed Marsh Wren was in our hands but escaped before the band could be attached. The highlight of the project was the netting of a Swamp Sparrow that had a foreign band on its right leg. A foreign band is one that another bander has attached at another banding station. This Swamp Sparrow carried band number 60-51760. A report was made of this band to the Fish and Wildlife Service to find out who had banded it. To date no report has been received on this bird, but a report will be made in a later issue.

Toward evening on both days the wind subsided some and as the Red-winged Blackbirds cruised around the lake in a clock-wise direction we caught them in the nets. This was good for the total number of birds banded was increased, but it was difficult to remove them from the nets in near darkness.

It was generally agreed that the total number of birds netted and banded was only a small fraction, perhaps one-tenth, of the number that might have been netted had there been only a slight breeze. The greater the wind in open areas the more the nets move about and the birds can see them better.

There were an estimated 400 - 500 Coots on the lake, as well as some Blue-winged Teal, Mallards and Ruddy Ducks. Two weeks before there were over 100 Ruddy Ducks. Also sighted were Red-headed Woodpeckers, Brown Thrasher, 3 Green Herons, American Bittern, Winter Wrens, Long-billed Marsh Wrens and Meadowlarks.

The following birds were netted and banded:

Downy Woodpecker 2, Yellow-shafted Flicker 2, Blue Jay 1, Cowbird 3, Yellow-headed Blackbird 2, Red-winged Blackbird 35, White-throated Sparrow 9, Song Sparrow 7, Lincoln's Sparrow 6, Swamp Sparrow 3, Yellow Warbler 1, Palm Warbler 1, Yellow Throat 1, House Wren 1, Robin 4.

A plan was devised by Johnson and Strnad for drawing for each new species of birds so that each bander present would have a fair opportunity to get his share of new species of birds. By this method one bander might get more than another bander of new species, but each time a drawing determined who got the new species.

This writer would like to encourage banders in other parts of the State to set up such demonstration days so that banders who now have a permit for traps only could get the experience necessary to have their permit amended to use mist nets.

Carl Johnson and I would like to know if more banders in the state would like to set up a day each year, probably during May, when the banders would converge on a given area and all use their nets and/or traps. A suggestion might be that we meet at Frontenac the second week-end in May in conjunction with the Minneapolis Bird Club's "big day" of birding. Or it might be in connection with the M. O. U. big day. The former plan would keep the banding in a given area over the years. The latter plan would move it about the State so that more birders and banders could take part each year. Your suggestions are invited concerning this matter. — *Kasson, Minnesota.*

All members are urged to submit articles and notes of interest. Notes of Interest are especially informative and of general interest to our readers. — *Editor*

Seasonal Report

by

Mary Lupient

Very strong winds predominated during the season. Due to the drouth they whipped up vast dust storms in April and caused extensive grass and brush fires. Hundreds of acres were burned. By May 1 precipitation was more than 3 inches below normal. Only the southeastern section received moisture to much of a degree. There, the worst snow storm in 10 years struck March 5 and another occurred March 15 which caused fear that the rivers in the area would flood from the melt. Up to May 1 temperatures were below normal for the season but on the above date an all time high of 91 was reached. The first 4 days of May were unseasonably hot. Thunder showers relieved the drouth somewhat and brought cooler weather.

Common and Hooded Mergansers appeared on the Minnesota River near Cedar Avenue, Hennepin County about the middle of March, Red-breasted Mergansers about April 1. The last of March a large migration of Canada Geese occurred in Eastern Minnesota, though several small flocks were reported earlier. On March 7 A. C. Rosenwinkel reported 9 Canada Geese in a spot of open water in Lake Vadnais, Ramsey County. Two of the birds were much smaller than the others, possibly indicating Hutchin's Geese. Agnes Elstad sent a report of the same observation. In Western Minnesota Blue and Snow Geese reportedly migrated at the usual time, the latter part of March.

Ducks began appearing on the open waters of the rivers the last week in March and by April 1, when the small lakes were open, the peak of the arrival was over. Mrs. Nubel and Mrs. Thompson observed a Wood Duck and 8 young on Lake Harriet, May 5.

The first Whistling Swans were noted on Rice Lake, Hennepin County near Shakopee, March 28, by Robert Janssen. There were approximately 100. At about the same time they appeared in various localities occupying the shallow waters of the river lowlands. Lyle Bradley stated that between 300 and 400 were seen on Diamond Lake near Anoka, Anoka County, April 13. Marie Aftreith sent word that 3 were seen in Duluth Harbor, St. Louis County, April 15 and an injured swan was found in nearby St. Louis River, April 28. Flocks of them accompanied Blue and Snow Geese at Lake Traverse, Traverse County.

As soon as Twin City Lakes opened about April 7, Common Loons appeared. One lone Horned Grebe was noted on the same date. Later these birds arrived in the usual number.

Common Egrets again put in an appearance in the spring. Two were reported at the Bass Pond, Hennepin County, on April 14 by Robert Janssen. Three were found along the Vermillion River near Red Wing April 23. Dean Honetschlager saw one flying over the south end of White Bear Lake, Ramsey County, April 26. Three were seen at Hanrahan Lake on boundary of Scott and Dakota Counties, by Daniel J. O'Connell May 5.

Amy Chambers and Jean McIntosh were in Rothsay, Wilkin County, April 18-19. In the area adjacent they saw the Sandhill Cranes and Prairie Chickens that are usually found there in the spring. They stated that Marbled Godwits were fairly common.

Up to May 1 very few shore birds

were reported. Common Snipes were most abundant. Only small numbers of Greater and Lesser Yellowlegs were noted. Mrs. E. W. Joul and others saw 78 Willets, May 1 on the shores of a small lake south of Minneapolis. Robert Janssen and Brother Theodore made observations in the region around Gaylord, Sibley County, May 2. They found Dowitchers, Upland Plovers, Wilson's Phalaropes, Golden Plovers and small peeps in goodly numbers. Pipets were seen in fair numbers. At Swan Lake, Nicollet County, there was an abundance of water birds. Altogether they checked approximately 100 birds for the day.

Reports on the hawk migration were sparse. There was a light movement of Sparrow Hawks in the Twin City area the last of April. Most of the other species of hawks were seen but only single individuals now and then. Robert Dickerman saw a Pigeon Hawk in flight near Randolph, Dakota County, April 26. Dean Honetschlager reported seeing 5 Red-shouldered Hawks near Marine-on-St. Croix, Washington County, March 27 and later that a pair was nesting nearby.

As stated in the report for last season there were no Snowy Owl records. Since then an observation was received from Robert Janssen saying that one was seen one mile west of Hibbing, St. Louis County, March 8, 1959. Brother Theodore and others took a trip to Hill City, Aitkin County, and Duluth, March 1. They saw 3 Hawk Owls, one of which was collected for the Museum of Natural History. There was an unusual number of these birds seen this season, 11 in all.

Ring-billed and Herring Gulls began arriving on the rivers in the Twin Cities the last week in March and Common Terns were seen in the same area the first week in May. Killdeers were seen March 23.

Apparently the returning Eastern Bluebird population was fairly large this season probably partly due to the houses established by George Rickert, Rev. Strnad, William Longley, Oliver Charley and many others. The birds came in late March. A few Robins appeared in March, many arrived in early April. Large concentrations of them lingered in parks and woodlands until almost May 1, then disappeared.

Hermit Thrushes came in early April, Swainson's Thrushes and Gray-cheeked Thrushes, May 1. Also on about the same date the Brown Thrasher, House Wren, Chimney Swift, Eastern Kingbird, Rose-breasted Grosbeak, Baltimore Oriole and Catbird. These records were for an area in and about the Twin Cities.

Brother Theodore turned in the earliest Tree Swallow record, Maple Lake, Annandale, Wright County, March 22. The peak of the migration was the first week in May. Date for Purple Martins, April 11.

A heavy wave of early warblers occurred in eastern Minnesota May 5. The birds were apparently brought down by a heavy rain storm. Myrtle Warblers in goodly numbers passed through in late April. The earliest Myrtle Warbler record was received April 2 from Dr. W. J. Breckenridge.

Migrating Eastern and Western Meadowlarks appeared before April 1 and as usual there were hordes of Red-winged Blackbirds and Common Grackles. The peak migration of Yellow-headed Blackbirds was the first week in May.

The movement of White-throated Sparrows was slow until the first few days in May after which they were present in large numbers. Reportedly they were abundant in many sections of the state. Chipping, Field and Vesper Sparrows were noted April 21. Song Sparrows March 20. This writer saw two Henslow's Sparrows, apparently in migration, between Shakopee and Savage April 10.

Agnes Elstad reported flocks of Lapland Longspurs in Northwestern Minnesota, April 11, Brother Theodore saw a flock of Lapland Longspurs and a flock of Snow Buntings near Hastings February 14. He reported seeing two Water Pipits at Rice Lake near Shakopee March 29. A. C. Rosenwinkel saw one near St. Paul, March 31.

A record turned in by Richard Oehlenschlager is another proof of the increase in the number of Black-billed Magpies in Minnesota. He stated that this season he saw as many as 176 at various times in Wadena County. They were feeding on carrion.

A report on Tufted Titmice was received from Mrs. P. A. Becker which follows in part. "Fifteen Titmice have been noted at one counting, the birds feeding by preference among the elm trees and also weed seeds on the lake shore. They also feed at 2 feeders on the point, Leech Lake, Cass County." There were reports of 2 at Nevis, Hubbard County, 2 at Tenstrike, Beltrami County, 1 at Horseshoe Lake east of Backus, Cass County, 1 at Duluth, 2 at Walker, Cass County. These are records for winter and spring 1959.

The Minnesota Ornithologists Union held its annual meeting with the Thunder Bay Naturalists of Canada at Grand Marais, Cook County, February 21-22. About 140 people attended the dinner. Twenty-five species of birds were listed, most interesting of which were Glaucous Gulls, Lesser Scaup, Bald Eagle, Boreal Chickadee, Old Squaw and Black-backed Three-toed Woodpecker. Three Red-breasted Nuthatches were also seen.

On April 13-17 your reporter and others again visited Sand Lake Wildlife Refuge in South Dakota. This refuge contains 21,451 square acres where waterfowl stop to feed and rest during spring and fall migration. It is administered by the United States Fish and Wildlife Service and takes care of hundreds of thousands of birds.

The refuge now operates a hospital for wounded birds and is a very interesting place. It consists of a wire enclosure with a small pool of water in the center. One can approach to within a few feet of these beautiful wild birds and see the markings and colorings which of course would be impossible in the field. Several species of ducks, a Whistling Swan and a White-fronted Goose were in the enclosure. Most interesting was the fact that two sizes of the Canada Goose were present for comparison.

One of the men that has been employed at the refuge for several years told an interesting story about a pair of Canada Geese. In the fall this pair remained at Sand Lake after the migration had occurred. Upon investigation it was found that the goose had an injured wing probably caused by a hunter. It was brought to the hospital and cared for. After lingering and calling for some days the gander left. In the spring seemingly the same bird came back and began calling from the lake. It found the hospital and walked up and down on the outside of the enclosure while the injured goose followed on the inside. She finally was released. They met, placed their bills together and gabbled excitedly. They swam about near the hospital for a few days then disappeared. No doubt her injured wing had mended enough for flight. Some authorities state that geese mate for life. — *Minneapolis, Minnesota.*

Captive Great Horned Owls

by

Earl D. Kopischke

Although much research has been done on the food habits and behavior of the Great Horned Owl, *Bubo virginianus*, I believe that the following observations made by myself of captive birds may provide interest and information regarding this species.

During the month of March, 1957, I noticed a large nest located about 20 feet above ground level in a crotch of a White Oak tree, *Quercus alba*. The female owl was sitting on the nest apparently in the process of incubating her eggs. The nest site area was not visited for a period of two weeks; then during the first week of April the owl was scared off her nest. It was then noted that the nest contained two newly hatched owlets along with the remains of a rabbit, one hen pheasant, and parts of a fox squirrel.

The young owls were taken home and put into a cage where their activity could be observed. The first problem encountered was food. Since I knew that owls generally ate meat, canned dog food was tried but with little success. Apparently the owls did not care for cooked meat. We then tried chopped sections of raw chicken and rabbit. This was swallowed about as rapidly as we could feed them.

As the owls grew, their appetites grew also. We continued the hand feeding but soon this job got to be too much work. Would the owls instinctively pick apart and eat their own food after being hand-fed for so long?

A dead chicken was placed in the cage to see what would happen. After several days the chicken was untouched. We then cut the chicken into several large pieces. One of the owls jumped down and tried to swallow the large pieces. After several vain attempts, it finally started to use its sharp claws to hold the meat and then tore smaller pieces off with the aid of its hooked beak. After several days of tearing their food apart, the owls knew how to handle whole chickens and rabbits by themselves. At this same time, whole carp were thrown into the cage. The owls did not attempt to eat the whole carp although they did eat the fish after it had been cut into smaller pieces and hand-fed to them.

Mice caught in traps were also hand-fed to the birds. Although their food was usually torn apart before swallowing, mice were swallowed whole.

Since sufficient meat could not be obtained to feed both owls, the birds were released from the cage. Now they were free to go where they pleased; yet at no time did they leave the farmstead. They flew around in the grove and roosted in the trees about our chickens. At no time did we ever see the owls eating the chickens nor did we find evidence that they had done so during the nights. Could we trust them further?

In order to keep them from pouncing on our poultry, we continued to chop up dead chickens, rabbits, or any raw meat which we could get and hand-fed them. Both owls would come down at dusk whenever we called them by saying, "Come and get it". They would fly down and sit in front of us and beg for food by "snapping" their beaks. If a stranger should appear, they would fly back up into the trees until the stranger had left.

Again, the immense appetite of the

(Continued on Page 48)

The Kako Morita Painting of the Yellow-Headed Blackbird

The painstakingly accurate watercolor paintings from which this plate of the plumages of the Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*) was made by a Japanese artist, Kako Morita, under the direction of Dr. Thomas S. Roberts at sometime prior to 1916. Dr. Roberts had planned on writing a book on the birds of Minnesota ever since his boyhood years when he began accumulating field notes. Even before he retired from his active medical practice in 1916 and came to the University, he had gone so far as to employ Mr. Morita to begin the illustrations for such a book.

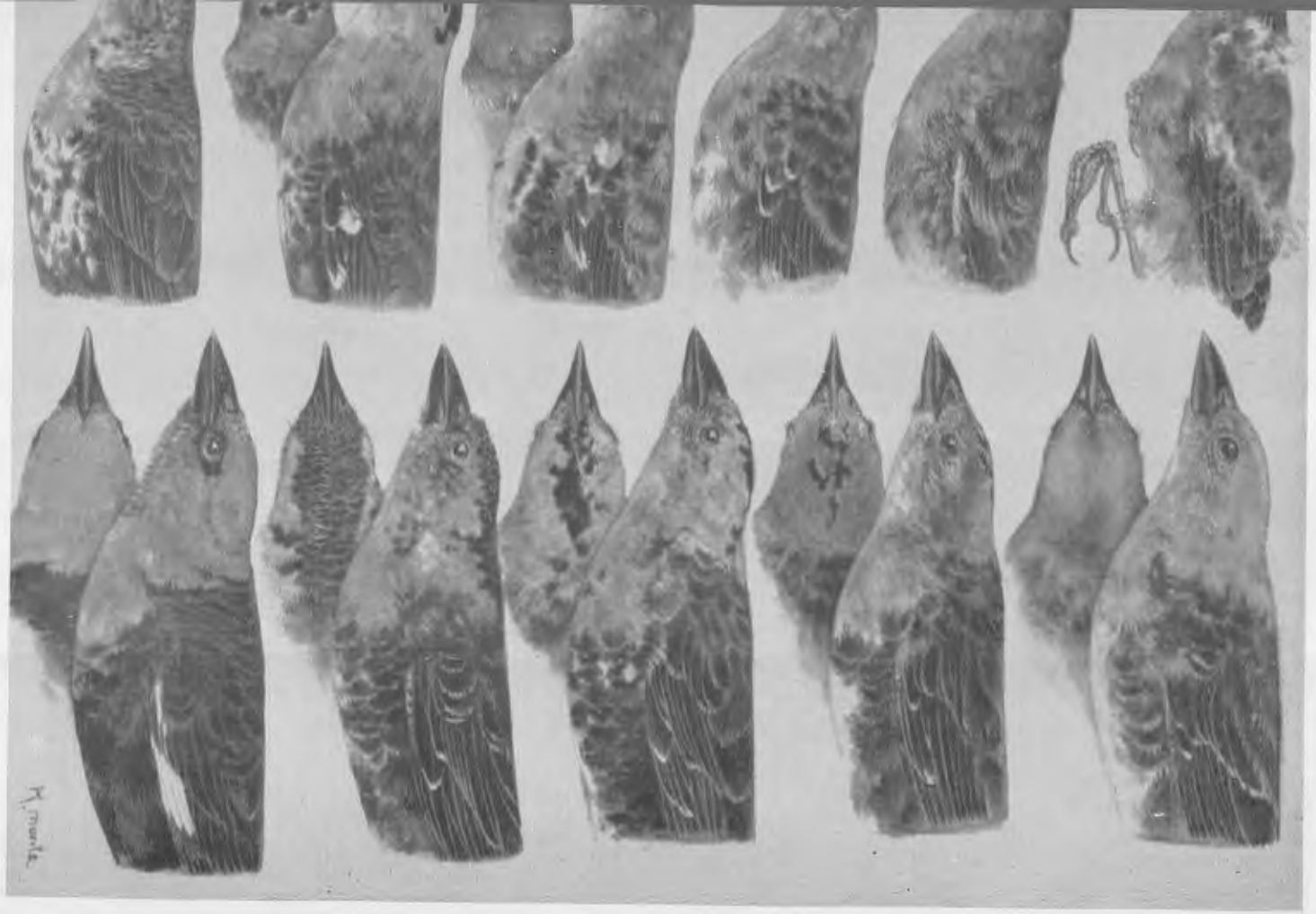
Although Mr. Morita did not know birds in the field well enough to make life-like paintings, Dr. Roberts was so influenced by his remarkable ability to copy feathers that he employed him, I believe at his own expense, to make a number of such plates from scientific skins in his collection. I recall Dr. Roberts telling of showing some of the paintings to ornithologists at a meeting of the American Ornithologists' Union and having them mistake the paintings at first for actual feathers laid on paper.

This series of plates, of which this is a representative, was exhibited for many years in the Museum and the paintings are still available for inspection in the Minnesota Museum of Natural History Library files.

This prairie blackbird was first described by Lucien Bonaparte in his *American Ornithology* published in 1825 after the bird was first encountered by Thomas Say, naturalist with the Long Expedition which passed through the Minnesota region in 1820.

Several somewhat inaccurate accounts of this species were published subsequently before Dr. T. S. Roberts carried on an intensive field study of a colony of these birds in the Long Meadow Marshes in the Minnesota River bottom lands just above Fort Snelling in 1918-19. An account of his findings appeared in the *Auk* (Vol. 47. pp. 410) in 1920. His interest in this typically midwestern species resulting from his study undoubtedly prompted him to have artist Kako Morita illustrate the various plumages of this bird reproduced here.

An interesting angle of Dr. Roberts' careful study of this colony was the fact that the mystery of the disappearance of the major part of the young from the nests without damage to the nest was never solved. A possible explanation to this mystery came to my attention recently in a field observation related by our very energetic and successful bird banders, Carl and Ted Johnson of Rochester, Minnesota. Sitting in a photographic blind near a Yellow-headed nest, Ted saw a mink grasp cane stalks and climb vertically up the supports of the nest, take a young blackbird, and leave without the slightest disturbance to the nest or surroundings. — *W. J. Breckenridge, Minnesota Museum of Natural History, University of Minnesota, Minneapolis 14, Minnesota*



birds was greater than our meager meat supply. Apparently hunger drove one of the owls to perform an interesting act.

Several goslings were eating grass on the lawn, when suddenly one of the owls swooped down toward them. It did not strike the gosling. Instead the owl laid down in the grass with its feet tucked underneath its body and with its head stretched out toward the approaching gosling. When the gosling came within about six inches of the owl's head, the owl jumped up and grasped the gosling with its sharp claws. The owl didn't proceed to fly away nor did it start eating. It merely sat there looking at the struggling gosling and seemed to be wondering what to do next. At this time the owl was interrupted by my mother who caught the owl and returned it to the cage.

We supposed that the owls would soon have learned to catch and kill their own food; therefore both owls were kept in a cage and fed dead animals.

Later in the fall both birds were given to a friend who mounted the specimens.

While working with these birds, I learned many interesting things about owls. Although every detail could not be put into this report, much more was learned by the author concerning the Great Horned Owl. I found that such a bird had an immense appetite and would learn to hunt and kill its own food even after being confined since being hatched.

I would like to mention also that the original female returned to the same area the following spring and nested within 500 feet of its former nest site.

Although information in this report cannot be used as an example of scientific research, it is intended to provide interesting information regarding behavior of the Great Horned Owl in captivity. — *Vernon Center, Minnesota*

Hawk Bill Passes Minnesota Legislature

The Minnesota State Legislature has passed a bill (Chapter 444 HF565) removing the Goshawk, Sharp-shinned Hawk and the Cooper's Hawk from the unprotected list. Originally Great Horned Owls were included in the bill but omitted in the final draft. This bill is designed to stop the indiscriminate shooting of these three species of hawks, but it does not prevent them being taken when they are causing damage. — *Donald S. Balser, Minnesota Department of Conservation, St. Paul, Minnesota.*

The Canadian Lakehead

by

A. E. Allin

The mean temperature for 1958 at the Lakehead Meteorological Station was 36.7° compared to a 30—year normal of 35.9°. The winter of 1958-59 was preceded by temperatures 4° above normal for both October and November. December, however, was the coldest in Lakehead history with a mean of 2.9° compared to an average of 10.7°. The old record was 3.8° in 1893. January with a mean temperature of 8.4° was 8.1° below normal and February's mean of 18.9° compared with a normal 21.3°. A consolation was the brilliant sunshine — a total of 435 hours in the three months. In March alone, however, we had 212.8 hours of sunshine and for the first time since November the temperature was above normal, 33.5°, or two degrees above the long term average. To the end of March the total snowfall was 53.8" compared with an average of 85.2".

At the beginning of April, only a trace of snow remained on the open ground although traces were still present in shaded areas until the end of the month. At that time, streams were open, and very low due to a dry warm month. Some small lakes were free of ice, and open water stretched along the shores of Whitefish Lake. All ice had disappeared from the local harbour.

By the end of April, favoured areas were again green with new grass but the only flowers were those of the Pussy Willow and Poplar and in the gardens, Crocuses, Scilla and Snowdrops. Winter-kill of perennial garden plants was low compared to the disastrous winter of 1957-58. On April 19, the first Wood Frogs were heard at the Lakehead; a week later both Wood Frogs and Swamp Tree Frogs were singing at Whitefish Lake, and we saw our first Bell's Painted Turtles of the season on a litle slough at Nolalu. Whirligig Beetles were gyrating on a Paipoonge pool and the occasional Anglewing was reported.

A phenomenon of the winter was the number of wintering Robins, a subject we discussed in the last *Flicker*. We were also favoured with two major movements from the north, one by Hawk Owls and the other by Bohemian Waxwings. The latter nomads were once regular winter visitors but the last major incursion was in 1947. A large flock was reported in Port Arthur on December 20 by C. MacDonald. On our Christmas Census December 26, a total of 473 was counted. K. Zroback reported 40 at Geraldton and P. Van Kerkoerle saw 250 at Marathon on the same date. Mrs. L. Howe had seen 13, at Dryden, on November 5, 1958. They remained there a week, feeding on Bittersweet, Honeysuckle and Mountain Ash berries. On a trip to Grand Marais on January 10, we saw 150 Bohemians, two flocks in Cook County and one in Ontario. A few were still present in Fort William on April 25, feeding on the dried fruit of a Crabapple.

The Hawk Owl is said to move south of its regular breeding range in winter to invade the northern tier of States and Southern Canada. At least in Northeastern Minnesota and the Thunder Bay District of Ontario this movement is very irregular. Some winters it may be common; for many winters it may not be recorded. It lacks the yearly movement of the Pine Grosbeak; yet

the pattern does not suggest a cycle such as the quadrennial one of the Snowy Owl. Rather it reminds me somewhat of the irregular invasion of the Bohemian Waxwing. In 1958-59 we saw 3 Hawk Owls and a few have been reported subsequently by other observers. (Dear found a nest with young in O'Connor Township on June 28, 1926, and K. Campbell found a pair with young at Auden, 150 miles northeast of the Lakehead, in 1957). Last October, Dear saw a Hawk Owl near Pigeon River and Garton reported one in the same area a week later. Kerkoerle reported one shot at Marathon on November 17. Mrs. Hogarth saw one near Port Arthur on January 25, K. Denis and the Robbs reported 3 at Dorion on February 28, and the Allins saw one northeast of Port Arthur on March 1 and one near Whitefish Lake on March 1. The total of nine probably exceed all those recorded locally in the past two decades.

In addition to the large number of wintering Robins, a few other summer residents were reported during the past winter. Kerkoerle observed a Rusty Blackbird at Marathon on December 26. A lone Common Crackle was seen by Garton in Port Arthur on the same date. On February 26, K. Denis and the Robbs observed another Rusty Blackbird at the open spring waters of the Dorion Fish Hatchery where they also saw a Belted Kingfisher, a new winter record for the Canadian Lakehead. Another uncommon winter visitor was the Tree Sparrow seen near Pigeon River on February 22. A few wintering Cedar Waxwings were seen. From Atikokan Mrs. Peruniak reported a Common Snipe on January 13. The temperature was -38°! It was wintering near some open water at Steep Rock Lake. A number of Common Golden-eyes and Common Mergansers wintered at the Dorion Fish Hatchery.

The Gray Shrike was uncommon during the past winter. One was seen on December 26 in Port Arthur and S. Robb saw one in Fort William on March 1. On March 27, the Allins drove to Lutsen. On the return trip we saw 2 Northern Shrikes in Cook County. A third was seen and heard singing north of the Pigeon River border. Two others were reported at the Lakehead on the same day. This species was also uncommon locally in the winter of 1957-58 but on March 30, the Allins and Robbs saw four. Does this suggest a northward migration about the end of March?

Apart from the Hawk Owl, the winter of 1958-59 was a poor one for observing owls. Two Snowy Owls were seen late in 1958. We saw one on January 3 and another on March 14. T. Perrons reported another in January. K. Denis saw one in Port Arthur on April 7. J. Ross heard the song of a Saw-whet Owl at Whitefish Lake on March 7 and again on March 28. A Great Horned Owl was heard on February 4.

Apparently the Magpie is moving eastward. One was reported near Shebandowan about 15 years ago. We have reported in these columns the one killed at Long Lac, two years ago, the one trapped near Kakabeka Falls by H. Broome on January 14, 1958 and the one seen on October 25 and 26, 1958 by Miss D. Adams near Dinorwic. There have been reports of Magpies being seen at Cloud Bay and at Sibley. One was reported in Fort William on April 26 by Miss M. Smith. Four years ago Mrs. L. Howe reported one at Dryden; this year she reports 7 to 10 were to be seen about lumber camps. On November 10, she saw three feeding on the remains of a trapped Beaver. Mrs. Peruniak reported one from Atikokan last October and saw another on March 23 at their local garbage dump.

It seems these columns are never complete without mention of the Raven, probably my favorite bird. Recently a local naturalist writing to the press referred to the "dreary Raven". Other

naturalists supported her description. Have they only heard their admittedly dismal croak? Even so it epitomizes the lonely winter scene, as we hear it passing over town or woodlot. But have they never heard its amazing repertoire of notes, particularly in the fall? They have amused me for hours as we have sat our vigil in a Whitefish Lake duckblind. Have they never seen its amazing antics particularly in spring as the breeding season approaches? Apparently not, or we would never hear a reference to it being dreary. They continue to increase in numbers. We counted 175 on our 1958 Christmas Census. Mrs. Peruniak reported 50 on the Atikokan dump on January 20. Most of them had disappeared by the end of March but we watched 3 on April 5, at the mouth of the Kaministiquia River, riding the air currents, falling through space, and calling to one another. It was obvious that there are triangles even among Ravens!

It had been expected that the 1958 season would see a further increase in the Ruffed Grouse population which should have been on the upswing of its cycle. Something happened, however, early in the breeding season and the numbers reported in the fall did not meet expectations. Perhaps weather conditions were unfavorable. The latter part of May was cold and June was 4° below normal. Few days in late May and early June were without precipitation. In a recent talk at the annual family dinner of the Thunder Bay Fish and Game Association, Dr. W. J. K. Harkness, Chief of the Wildlife Division of the Ontario Department of Lands and Forests, inferred that this decline was general for the hundreds of miles across Ontario from Manitoba to the Quebec border. His staff was at a loss as to where we stood at present in the 10-year cycle but trusted investigations during the current year might enlighten us. Perhaps it is significant that we have seen more Ruffed Grouse this spring than on any previous one in the past two decades. Unfortunately many have been killed on the highways.

A few Gray Partridge still survive but the birds have failed to multiply to any extent since their introduction more than three decades ago. At least two Ring-necked Pheasants have been seen recently southwest of the Lakehead. They were re-introduced a few years ago. The past two winters with their low snowfall have been favourable for their survival. Uninformed individuals will be encouraged to spend more money and time on futile efforts to introduce the species in the vain hope it may become a gamebird. At the most we may expect a few will persist to provide, as does the Gray Partridge, an interesting addition to our avian fauna. There have been no authentic reports of the survival of the Blue Grouse introduced into Sibley Park a few years ago. Nor do we have any information on the present status of the Spruce Grouse in the surrounding districts. The Sharp-tailed Grouse continues to be a relatively scarce resident occurring in numbers in only a few favoured areas.

As usual, the Common Crow was the first migrant. Two were seen on March 14. Very few were present on the morning of March 27 as we drove to Lutsen but they were common on our return that afternoon to Thunder Bay District. The first Herring Gull was reported on March 21. The third migrant was the Common Redpoll, first seen on March 22. A few flocks were noted in the next two weeks but the great flocks sometimes seen in spring did not materialize.

The Marsh Hawks were very scarce at the Lakehead in 1958 but this year they have been very common.

Mrs. Knowles reported the first on March 29. By late April many of these Harriers could be seen on any trip through the country. The American Sparrow Hawk, usually our most abund-

ant raptore, is present in its usual numbers. Col. Dear, still active in his seventy-fifth year, despite recent severe illnesses, reported the first one on April 9. Only a single Sharp-shinned Hawk has been seen and few Red-tailed Hawks have been recorded. We did not see an American Rough-legged Hawk until April 26.

As noted above, Common Golden-eyes and Common Mergansers wintered at the Dorion Fish Hatchery. Many Golden-eyes were also present on the open waters of the Nipigon River. The whistlers were occupying new areas by April 7 and mergansers were seen on April 19. Black Ducks appeared on April 5, Mallards on April 14 and Pintails on April 17. The great flocks of northbound ducks, however, are just arriving at the present time and it seems best to leave a review of their spring migration to a future issue of *The Flicker*. A small flock of Canada Geese was seen on April 17. A single Whistling Swan was reported on April 19. Only three shore-birds have been seen, viz. the Killdeer which arrived on April 12 and the two species of yellowlegs. Three Greater Yellowlegs were attempting to find food along the frozen shores of Thunder Bay on April 16 and the first Lesser Yellowlegs were seen on April 27.

There has been recent concern over loss of bird-life due to storms, severe winters in the south, and particularly due to indiscriminate use of insecticides. The birds concerned have included both the Eastern Bluebird and the Robin. The former is a relatively uncommon summer resident but to date only one Bluebird has been reported. The Robin on the other hand is most abundant. One appeared in Fort William on March 31. They increased until mid-April by which time all their former territories appeared occupied. I cannot recall a season in the past two decades when Robins have been as common in Fort William as they are this year. We suspect a small flock seen in O'Connor Township on April 26, were northern birds and not local residents. Usually, however, it is early May before that movement is noted here and in Manitoba.

By mid-April, more migrants had been reported than in any year, except 1949, since we commenced records in 1938. Subsequently, however, the tempo decreased and at the end of April migration is behind the average. Apart from the numbers of Robins and Marsh Hawks, the most interesting feature has been the movement of early sparrows and buntings. Slate-colored Juncos appeared on April 7 and Tree Sparrows on April 18. Their numbers steadily increased and on April 26, flocks of these birds were present everywhere. By the same time Song Sparrows, which had appeared as early as April 11, were also common. The Robbs reported Snow Buntings on April 9

and Lapland Longspurs on April 18. The former increased until flocks of many hundreds were seen near the elevators. On April 26, we saw a mixed flock of Snow Buntings and Lapland Longspurs. Both species flew into a grove of trees! On a previous occasion we saw Snow Buntings lined up like swallows on telephone wires. We were fortunate in hearing Longspurs sing for the first time.

Few years pass without a few Fox Sparrows being reported during a few days in mid-April. This year they have been unusually common since first noted on April 16. Generally they have been associated with the mixed flocks of Juncos and Tree Sparrows. On several occasions we have heard them singing. Perhaps their song is not yet fully developed. Perhaps I fail to appreciate it as my friends fail to appreciate the notes of the Raven. At any rate we were again disappointed in their song as we have been in the past. Where was the "loud, clear melodious carol" (Reed), "the variable carol of clear melodious notes, richer than any other sparrow" (Pough)? Perhaps Brook Atkinson best described it in his *East of the Hudson* when he referred to "the fragile, luminous aria of the Fox Sparrow." Certainly as heard locally, it cannot compare with the sweet notes of the White-throated Sparrow, the seldom-heard, bubbling song of the Lincoln's Sparrow or at eventide the sweet melody of the Vesper Sparrow—perhaps my favorite songster. — *Regional Laboratory, Ontario Department of Health, Fort William, Ontario.*

The Minnesota Christmas Census of 1958

by

Jane C. Olyphant

One hundred and fifty-one observers amassed a record number of both individuals and species during the 1958 Christmas bird count. These totals, 18,789 individual birds, and 82 species, compare with 13,320 individuals, and 70 species for 1957. However, based on the number of miles traveled (1866 for 1958, compared with 953 for 1957), and a much expanded force of observers 151 (nearly double the 1957 figure of 78), the conclusion is evident that the "1958 Counters" worked hard for their birds.

New species include: Horned Grebe, Canada Goose, Bufflehead, Common Snipe, Iceland Gull, Winter Wren, Bluebird, Brown Thrasher, Killdeer, Horned Lark, and Lapland Longspur. The decrease of water-fowl is evident, as indicated by the ratio of 420 mallards for 1958 compared to 1815 for 1957. A similar decrease in formerly common winter visitors is shown by the counts for the Pine Grosbeak, 79 for 1958 compared to 590 for 1957, and Common Redpoll, 106 for 1958 compared to 1110 for 1957. Increases were noted for Bohemian Waxwings, from 297 to 587, Cedar Waxwings 15 for 1957, to 142 for 1958; Starlings were up about 1500, Redwing Blackbirds 11 for '57 to 1449 for '58; Slate-colored Juncos, up about 400, and Tree Sparrows from 219 in '57 to 1094 in '58.

Extremely low temperatures, wind, and scarcity of open water, were common to most of the count areas, and presumably account for the somewhat lower density of sighted birds; 10 per mile compared to 14 per mile for 1957. Otherwise weather conditions and amounts of snow varied considerably throughout the state.

The Editor of *The Flicker* did not receive 3 census reports. Without a copy of the AUDUBON FIELD NOTES —59th CHRISTMAS BIRD COUNT (published in April, 1959), a complete Minnesota census could not have been compiled. In the future, compilers should be sure that a copy of their census is sent to the Editor of *The Flicker*, also, so as to assure a complete census for the State of Minnesota.

The author is pleased to note the accurate accounts of weather conditions, descriptions of areas covered, number of miles covered, etc. As a result of these available details, a clearer picture of the census reports is presented for Minnesota bird enthusiasts.

HIBBING—Dec. 21, 8 a.m. - 4 p.m. (All points within a 15 mile diameter circle center Hibbing; streets 5%, lake shorelines 5%, open farmlands 10%, balsam-tamarack bog 20%, pine forest 40%, poplar-birch forest 20%) Temp. -30 to -1, wind NW, 5-10 m.p.m. 15 observers in 3 parties. Total party hours, 22 (4 on foot, 18 by car). Total party miles, 108 (10 on foot, 98 by car). Seen in count period but not on count day: Long Eared Owl, White-winged Crossbill. Participants: Lee Ann LaTendresse, Mrs. Oscar McCracken, Catherine Micensky, Mrs. Ray Naddy, Ray Naddy (compiler), Floyd Parker, John Parker, Mary Parker, Frank Pingatore, Karen Pingatore (Little Swan 4-H Club).

DULUTH BIRD CLUB—Dec. 28, 6:30 a.m. - 5:15 p.m. (Area covered: St. Louis Bay and River, Lake Superior shoreline to Encampment Forest, excluding Minnesota Point, and several Duluth parks and Duluth City Dump). Town suburbs 15%, Parks and highways

75%, dump 5%, and feeding stations 5%. Temp. 27 to 36, wind calm, sky overcast all day. Fifteen observers in 8 parties. Total party hours 37¼ (22¾ on foot, 14½ by car). Total party miles 193 plus (25 on foot, 168 by car). Seen during count period but not on count day: Great Black-backed Gull, Snowy Owl, Red Crossbill. Participants: June Anderson, Stanley Anderson, Joel K. Bronoel, Margaret Brown, Miriam Carlstedt, Bob R. Cohen, Harold B. Evans, Dr. Edward Flaccus, Henry Gilbert, John G. Hale, Steven Hedman, Dr. P. B. Hofslund, Gary C. Kuyava (compiler), Charles Roulo, and Larry Snyder.

MOORHEAD—Dec. 27, 7:30 a.m. to 4:30 p.m. (All points within a 7½ mile radius centering on Red River 4½ miles north of Fargo, N.D., including Red River valley from Riverside Cemetery north to confluence of Red and Sheyenne Rivers). Agricultural land 26%, city parks and cemetery 25%, flood plain deciduous growth 22%, deciduous shelter belts 13%, coniferous shelter belts 5%, city 5%, oak woods 2%, marsh 2%. Temp. 24 to 28. Overcast. Wind N-SE, 3-11 mph. About 1 inch of old snow, scattered drifts, smaller streams frozen. Red River open several places north of Fargo. Five observers in 2-5 parties. Total party hours 4¼. Participants: John F. Anderson, J. Frank Cassel (compiler), Dr. and Mrs. Frank M. Melton, David Noetzel.

LAKELAND COMMUNITY—Dec. 29, 8:30 to 4:30. (All points within a 15 mile diameter circle center in Sec. 2-R57-T16 in St. Louis County, including around Cedar Island, and Eshquaguama, Lost, Trappers and Bass Lakes). Pine forests 50%, mixed woodlands 25%, shoreline 10%, open farmland 10%, tamarack swamp 5%. Temp. -5 to 10 above. Clear. Wind NW 5 mph. Two feet of snow, water areas frozen. Eight observers in one party. Total party hours 8. Total party miles 28 (3 on foot, 25 by car). Seen in area count period but not on count day: Pileated Woodpecker, Pine Siskin, Snow Bunting. Harold J. Oase (compiler for Lakeland Jr. 4-H Club).

WALKER—Dec. 28, 8 a.m. to 4 p.m. (All points within a 15 mile diameter circle center at highway intersection 5 miles south of Walker as in former years). Temp. 16 to 24, cloudy, heavy hoarfrost. Wind NW 5 mph, 4-5 inches of snow. Lakes frozen, few streams open. Two observers in one party. Total party hours 8. (3 on foot, 5 by car). Total party miles 45 (3 on foot, 42 by car). Seen in area count period but not on count day: Bald Eagle, American Magpie, Tree Sparrow. Participants: Harold R. Hanson (compiler), Stanton Oman.

ST. CLOUD BIRD CLUB—Dec. 26, (Areas around homes of some members of St. Cloud Bird Club, region north of St. Cloud along Mississippi River, campus of College of St. Benedict, St. Joseph, Minnesota, 5 miles northwest of St. Joseph, and campus of St. John's University. Temp. 28 to 30, clear and mild, wind 8 mph. Participants: Dr. Max Partch, St. Cloud State College; Mr. Edmond Hibbard, St. John's University; Sr. Ramburta, College of St. Benedict; Mr. George Lehrke, Pres. St. Cloud Bird Club; Mrs. George Lehrke, Mrs. Alys Misho, Lorreta Rosenberger, Monica Misho, and Adella Glass.

NORTH-EASTERN SUBURBAN ST. PAUL—Dec. 27, 7:45 to 4 p.m. (All points within a 15 mile diameter circle, center at junction of Rt. 96 and Washington CTy. Rt. 22 West to Centerville Road, East to St. Croix River, South to junction of Rts. 100 and 212, East to Bayport). Deciduous woods 30%, lakes and marshes 20%, River valleys 4%, open fields, farmlands 45%, evergreen stands 1%. Lakes frozen, St. Croix River partially open on Minnesota side near Bayport. Temp. 26 to 40; cloudy, wind NNW 10 to 15 mph. One inch of snow on ground. Fifteen observers in 6 parties. Total party hours 38 (20 on foot, 18 by car). Total party miles 258

Minnesota Christmas Bird Count—1958 Compilation

	Hibbing	Duluth Bird Club	Moorhead	Lakeland Community	Walker	St. Cloud Bird Club	North-East Suburban St. Paul	St. Paul, North	Minneapolis Avifaunal Club	Cedar Creek Bog Minn. Bird Club	Excelsior	Minneapolis Bird Club	Willmar-Sibley State Park	Afton	Northfield	Plainview-Whitewater-St. Park	Kasson-Whitewater Park and Game Refuge	TOTALS
HORNED GREBE		2																2
CANADA GOOSE							12											12
MALLARD									397		1	2			1	4	15	420
BLACK DUCK									13									13
LESSER SCAUP		25					2											27
COMMON GOLDENEYE		115				8		180	17			240				5		565
BUFFLEHEAD		1																1
COMMON MERGANSER		6																6
COMMON SNIPE							3										1	4
TURKEY VULTURE																1		1
GOSHAWK								1										1
SHARP-SHINNED HAWK												1						1
RED-TAILED HAWK							1	1			6					4	4	16
COOPER'S HAWK									1									1
RED-SHOULDERED HAWK											3						1	4
ROUGH-LEGGED HAWK											1							4
BALD EAGLE		1												1			1	3
BROAD-WINGED HAWK								2										2
MARSH HAWK											1							1
HARLAN'S HAWK											1							1
SPARROW HAWK						1		1	4		3	6		1	1	1	1	19
RUFFED GROUSE	12	7		2	5	2				22				15			8	73
SHARP-TAILED GROUSE	3	1																4
RING-NECKED PHEASANT		4	4	3		4	33	5	102		59	27	4	10		3	8	266
KILLDEER																	4	4
GLAUCOUS GULL		5																5
ICELAND GULL		1																1
HERRING GULL		700										4						704
RING-BILLED GULL		53																53
MOURNING DOVE											6			20				26
SCREECH OWL				1		1												2
GREAT HORNED OWL		1		3					3		7							14
SNOWY OWL	1																	1
BARRED OWL				3				1		1	1							6
LONG-EARED OWL				1					1		2							4
BELTED KINGFISHER														1		3	3	7
YELLOW-SHAFTED FLICKER													1	1			2	4
PILEATED WOODPECKER		1				1	2	2	4		7			1			2	20

RED-BELLIED WOODPECKER							2		1		15	3		7	5	9	2	44
RED-HEADED WOODPECKER														4		3		7
HAIRY WOODPECKER	4	8	1	2	9	1	6	7	9	2	39	6	1	27	2	5	8	137
DOWNY WOODPECKER	1	28	5	2	5	5	9	9	14	1	62	7	2	62	4	4	5	225
GRAY JAY	4	1		2	1													8
BLUE JAY	12	9	1	3	23	5	24	12	17	2	96	11		63	5	21	30	334
HORNED LARK															2			2
COMMON RAVEN	7	25		1														33
COMMON CROW		1	10				101	125	46	8	33	39	2	17	4	3	111	300
BLACK-CAPPED CHICKADEE	40	91	8	42	55	45	71	90	144	16	278	57	2	196	40	20	18	1214
BOREAL CHICKADEE	1																	1
TUFTED TITMOUSE		3			1	6		5	2		7			8	3			35
WHITE-BREASTED NUTHATCH	3	9	5		14	7	13	12	56		129	24		60	15	12	15	374
RED-BREASTED NUTHATCH	3	28		3		2			3					5				41
BROWN CREEPER	1				1	1	2	1	9	1	10			1			2	29
CAROLINA WREN																	1	1
WINTER WREN																1		1
BROWN THRASHER		1																1
BLUEBIRD																6		6
ROBIN		2	1		1	2					2			1				9
GOLDEN-CROWNED KINGLET					3			2	34		37	5		3				84
BOHEMIAN WAXWING		200			4		162			30	6	185						587
CEDAR WAXWING						60					82							142
NORTHERN SHRIKE		4			2		1	2	2	1	2							14
STARLING	68	324	24		12	30	66	100	159	11	631	299	100	170	50	116	129	2289
HOUSE SPARROW	22	45	41		75	50	279	150	1057		2426	614	14	71	50	250	35	5179
EASTERN MEADOWLARK							2											2
REDWINGED BLACKBIRD		1					23	200			1200					25		1449
COMMON GRACKLE											1						3	4
RUSTY BLACKBIRD							41											41
CARDINAL		1	2			7	2	10	9		66	4		52	20	60	33	236
EVENING GROSSBEAK		102			165			20			3							290
PURPLE FINCH		2				1		6	22		36			62				129
PINE GROSSBEAK	3	59		2	15													79
COMMON REDPOLL		2			32			15		35	22							106
PINE SISKIN		6							25		23							54
AMERICAN GOLDFINCH						8		4	48		242	63		2	10	3	7	387
SLATE-COLORED JUNCO		1			2	72	25	65	95		353	58		244	100	29	24	1068
OREGON JUNCO											2				1			3
TREE SPARROW						2	33	5	121	2	495	61		123	100	120	32	1094
WHITE-THROATED SPARROW											1							1
SONG SPARROW											2				1	1		4
LAPLAND LONGSPUR								2										2
SNOW BUNTING	96		23		65													184
TOTAL INDIVIDUALS	281	1876	125	60	491	321	915	1035	2416	132	6399	1716	126	1228	455	708	505	18789
TOTAL SPECIES	17	39	12	9	21	23	24	29	30	13	42	21	8	28	24	25	28	82

(29 on foot, 229 by car). Participants: Mrs. Jos. Fitzpatrick, John Fitzpatrick, Mr. C. Robert Binger, Mrs. Donald Gipple, Mrs. Thos. McClanahan, Mrs. Kenneth Young, Miss Cara Young, Mr. and Mrs. Francis Lee Jacques, Miss Mary Crombie, Mr. Murray Olyphant Jr., Mrs. Murray Olyphant Jr. (compiler), Mr. and Mrs. C. John Kennedy, Mr. Dale Haswell.

ST. PAUL NORTH—Dec. 27, 7:45 to 4:45 p.m. (All points within a 15 mile diameter circle, center at Round Lake near Little Canada). Pine Forest 35%, spruce-balsam 10%, tamarack 5%, open fields 10%, deciduous woods 20%, farm woodlots 10%, marshes 10%. Temp. 27 to 33.Cloudy, wind W, 5-8 m.p.h. 1-2 inches of snow in woods, lakes mostly icebound. 7 observers in 2-3 parties. Total party hours 25 (19 on foot, 6 by car). Total party miles 40 (16 on foot, 24 by car). Seen in count period but not on count day: Rough-legged Hawk, Rufous-sided Towhee. Participants: Melba Dahms, Frank Kelley, Brother Martin, Brother Pius, A. C. Rosenwinkel (compiler), R. Sullivan, Mrs. R. Sullivan.

MINNEAPOLIS WEST - AVIFAUNAL CLUB — Dec. 27, 8 a.m. to 4 p.m. (All points within a 15-mile diameter circle, center on Minneapolis Golf Course, extending to junctions of Highways 55 and 101; Robbinsdale, Edina, Hopkins, and including Theodore Wirth Park, and Roberts Bird Sanctuary). Town suburbs 47%, open farmland 24%, deciduous woods 16%, lakes, marshes, creeks 8%, City parks and golf courses 5%. Temp. 25 to 33, cloudy, wind W, 9 m.p.h.; ground bare except in sheltered areas; portions of Mississippi River, Bassett's Creek, and Lake Calhoun open. 8 observers in 4 parties. Total party hours 23 (8 on foot, 15 by car). Total party miles 190 (13 on foot, 177 by car). Seen during count period but not on count day: Robin. Participants: G. F. Fisher, J. S. Futcher (compiler), Ray Glassel, Burton Guttman, Harding Huber, Norie Jones, W. R. Pieper.

MINNESOTA BIRD CLUB — CEDAR CREEK BOG — Dec. 27, 9 a.m. to 5 p.m. (All points within a 15-mile diameter circle, center on Cedar Creek Game Refuge). Temp. 26 to 32, overcast, calm. 11 observers in 2 parties. Total party hours 10 (8 on foot, 2 by car). Total party miles 10 (7 on foot, 3 by car). Participants: W. J. Breckenridge, Robert Janssen (compiler).

EXCELSIOR — Dec. 27, 8 a.m. to 4 p.m. (All points within a 15-mile diameter circle, center Chanhassen, including areas about Lake Minnetonka, Glen Lake, Christmas Lake, Shakopee). Pasture and open fields 40%, deciduous woodland and planted evergreens 30%, frozen rivers, lakes, and marshland 30%. Temp. 22 to 32, cloudy; wind SW 6 m.p.h. Old snow in woods. 20 observers in 9 parties. Total party hours 74 (29 on foot, 45 by car). Total party miles 420 (46 on foot, 374 by car). Seen in count period but not count day: Yellow Shafted Flicker. Participants: Lester Badger, Don Bice, Evelyn Bruce, Mr. and Mrs. M. E. Herz, Mary Lupient (compiler), Mr. and Mrs. Henry Pratt, John Pratt, Walter Pratt, Dana Struthers, Ward D. Tanner, Arnold Erickson, Mr. and Mrs. Whitney Eastman, Brother Theodore, Mr. and Mrs. Phillip D. Tryon, Ray Walker, James Wilkie.

MINNEAPOLIS BIRD CLUB — Dec. 27, 8 a m. to 4:30 p.m. (All points within a 15-mile diameter circle, center Coon Creek Dam, from Camden Park to Anoka, both sides of Mississippi River). Open farmland 40%, town suburbs 44%, deciduous farm woodlots 12%, deciduous river banks and valleys 2%, marshes and sloughs 2%. Temp. 26 to 33, overcast, wind WNW 8 m.p.h. Little snow, Missippi River open below Coon Creek Dam. 15 observers in 6 parties. Total party hours 29 (6 on foot, 23 by car). Total party miles 328 (11 on foot, 317 by car). Participants: Mr. and Mrs. Clifford Cook, Mr. and Mrs. Fred Cruzen, Ester Jerabek, O. V. Johnson, Frances Korista, Paul LaPlant, Ralph LaPlant, Mr. and

Mrs. Boyd Lien (compilers), Mr. and Mrs. Melvin Stenrud, Charles Wright, Kristin Wright.

WILLMAR—SIBLEY STATE PARK — Dec. 26, 12:30 to 3 p.m. (Area covered: Eagle Lake north to Sibley State Park, along shore to Lake Andrew near the group camp — through the campground to the top of Mt. Tom; continuing along the west side of Lake Andrew, down Little Crow Trail to Eagle Lake. Open farmlands 95%, wooded lakeshore 2%, open woods 3%. 2 observers in 1 party. Participants: Mr. and Mrs. Lee Payne (compilers).

AFTON — Dec. 20, 7:45 a.m. to 4:30 p.m. (All points within a 15-mile diameter circle, center at Afton, making a semi-circle on west side of St. Croix River). Open farmland 70%, deciduous wooded river banks, hills and valleys 30%. Temp. 0 to 14 above, overcast; wind SSW 5 to 11 m.p.h. Little snow, St. Croix River frozen. 10 observers in 7 parties. Total party hours 30 (24 on foot, 6 by car). Total party miles 65 (12 on foot, 53 by car). Seen in area count period, but not on count day: Red-tailed Hawk, Cedar Waxwing, Oregon Junco. Participants: Mr. and Mrs. Coy Asp, Ruth Carey, Oliver Charley, Mrs. Fremont Jewell, Mr. and Mrs. Boyd M. Lien (compilers), Min Paro, Mrs. Ralph Paulson, Mr. and Mrs. Emil Spreeman.

NORTHFIELD — Dec. 27, 7:45 to 4:30 p.m. (All points within a 15-mile diameter circle, same as last year). Temp. 26 to 34, clear, wind W 5 to 10 m.p.h., little snow cover. Cannon River open; other waters frozen. 2 observers in 1 party. Total party hours 8½ (5½ on foot, 3 by car). Total party miles 35 (5 on foot 30 by car). Participants: George Palmer, Orwin A. Rustad (compiler).

PLAINVIEW — WHITEWATER STATE PARK — Dec. 31, 9:45 a.m. to 4:30 p.m. (Area covered: from Plainview by car via Highway 42 to Kellogg, Minn. and the Mississippi River; then to Weaver and to Whitewater Game Refuge.) Temp. 10 to 20, clear to partly cloudy; wind E, 5 m.p.h.; very little snow. Mississippi River almost completely frozen. 2 observers in 1 party. Total party hours 8½ (1¾ by car, 6¾ on foot). Total party miles 48 (40 by car, 8 on foot). Participants: Dr. and Mrs. D. G. Mahle (compilers).

KASSON — WHITEWATER STATE PARK AND GAME REFUGE — Dec. 27, 7 a.m. to 4 p.m. (All points within a 15-mile diameter circle, center at Refuge Headquarters, same areas as last year, plus pines at northern edge of Park; Highway 74 through Refuge to Appleby Springs; trash pit at Altura; Fish Hatchery). Oak woodland 70%, brushland 20%, crops and pasture 10%. Temp. 26 to 44, wind S 5-10 m.p.h.,ground party snow covered; Whitewater River open. 6 observers in 1 party. Total party hours 9 (1 on foot, 8 by car). Total party miles 98 (30 on foot, 68 by car). Participants: Kendall Corbin Jr., Wm. Longley, Don Orke, Mrs. Frank Pendle, Gary Sell, Forest Strnad (compiler). — *St. Paul, Minnesota*

Notes of Interest

GROOVE-BILLED ANI IN LAC QUI PARLE COUNTY — "Should a Groove-billed Ani ever again be seen in Minnesota it would instantly be recognized as some new and strange bird." Thus did Dr. T. S. Roberts in his *Birds of Minnesota* refer to an appearance in 1913 of this tropical member of the cuckoo family.

The school children of a county school near Nassau, Minnesota in Lac qui Parle County found their natural history studies enlivened when they were challenged to identify "a new and strange bird." A mounted specimen had been brought to the school by a local farmer who found the bird dead in his farm yard on October 20, 1958. The limited bird references of the school were of little help in naming the strange-billed black bird.

A trip to the Madison public library followed. Here they were referred to Mrs. C. E. Peterson, who is an able authority and well known to Minnesota bird lovers. From her they learned the exciting news that this was indeed a rare specimen, a tropical bird found rarely as far north as Kansas and only once previously reported in Minnesota.

School children of Panama would not consider this bird strange or unusual. It is known to them as "Garra Patero" or Tick Bird as it often is found around cattle, frequently perched on their backs feeding on the pestilent tick. The Groove-billed Ani although a member of the cuckoo family is quite different from other *Cuculidae* in appearance and habits. It does, however, have the typical family trait of being yoke-toed, two toes in front and two behind. "It is a black bird, considerably smaller than a grackle, with a long graduated tail, a bare face, and a short, high bill much compressed, the upper mandible conspicuously grooved and crested" (Roberts, *Birds of Minnesota* 1932).

Our Minnesota school children and their teacher found their problem in identification to measure 14 inches long overall, tail seven inches long. The bill and the toes were the distinctive features which enabled them to identify it as an ani. With three grooves along each side of the crested bill it was certainly a Groove-billed Ani.

During his recent visit to Minneapolis, Dr. George Sutton recalled several reports of the Groove-billed Ani being sighted in Oklahoma last fall. That such a bird turned up in Minnesota is rare indeed, and surely a unique problem for the children of a rural school. — *Goodman and Marge Larson, Hopkins, Minnesota*

* * *

EARLY AND LATE ARRIVALS — On Sunday, March 22, one lone Tree Swallow was observed at Maple Lake, near Annandale, Wright County, Minnesota. Although the lake was still frozen over, the ice was melting along the edges, and the bird was seen picking up insects at the shore line. Roberts lists the early date for this species as March 29.

Two Water Pipits were seen on March 29 at Rice Lake, Carver County, by Brian Smith and me. They were feeding in the flooded edge of the field to the north of the lake. This, according to Roberts, represents an early date for pipits.

For late arrivals I mention the following observations. Approximately 200 Blue and Snow Geese were seen in two "V" lines — one group a few yards behind the other

— on Sunday, May 10, flying over Benilde High School, St. Louis Park. About 95% were Blue Geese.

On Saturday, May 16, one Pine Siskin was observed in Wood Lawn Cemetery, Winona, by Robert Janssen, the Huber brothers and me. On the same trip a Brown Creeper was seen in the river bottoms near LaCrescent. Since I have previous records for this bird, in June 1952 and July 1955, I have suspected the creeper nests there, but have never found a nest. — *Brother Theodore, F.S.C., Benilde High School, St. Louis Park, 16, Minnesota*

* * *

BLACK-BILLED MAGPIES IN WADENA COUNTY — The following observations on magpies were made in the vicinity of my home located southeast of Nimrod and along the route to school in Sebeka.

On February 20, 1958 while I was riding the school bus, I noticed a jay-like bird with a noticeably longer tail flying across the road and over the bus. Presently the black and white pattern became apparent and it was then that I knew I had seen my first magpie. Magpies had been seen before in this immediate locality for the past six years by people familiar with magpies from further west, but this was the first time I had ever seen one.

On October 11, 1958 while grouse hunting, I heard a strange chattering and somewhat flicker-like call coming from a grove of poplar trees. My curiosity aroused, I followed the sound and soon flushed a magpie. In the next few days single magpies and small flocks became more common. One day a neighbor boy who lives on a mink farm came and talked to me about approximately 18 strange long-tailed birds that were eating on some animal remains in their pasture. I investigated soon after and found them to be magpies as I had suspected. On October 18 at this same place there were five magpies, two ravens, a few crows, and one blue jay all feeding on animal remains within a stone's throw of each other. One of the ravens was shot to confirm the identification of this species.

Later in the fall, flocks grew larger and were observed throughout the whole county and their presence raised many a question regarding their identity from people who were unfamiliar with them. Three specimens which were caught in traps or shot were brought to me where they are now mounted.

The largest flocks seen were two flocks in late February which were a long distance apart from each other. They contained a minimum count of 34 in one flock and about as many in the second. In all I saw and recorded 176 magpies, dead and alive, this figure carefully excluding those suspected of being repeats.

The magpies seemed to be entirely carnivorous as far as observations and stomach observations proved. There were a lot of dead animals from accidental deaths which attracted a great number of them locally. About 90 per cent of the magpies seen were encountered in deciduous terrain chiefly of red or scrub oak forests while nearly all the magpies seemed to avoid the evergreen forests entirely. As a coincidence with the presence of so many magpies the blue jay population was diminished. This leaves me to wonder if the magpies pushed the jays out of their habitat. In the fall, the magpies were easily approached to within close distances, but during the spring they grew very shy and suspicious. Also, during the spring they broke up their ordinary chatter with somewhat musical and much varied sounds. I last saw a magpie on April 25, so there may possibly be magpies breeding here. — *Richard Oehlenschlager, Sebeka, Minnesota*

LONG-EARED OWLS IN SCOTT AND HENNEPIN COUNTIES — A pair of Long-eared Owls were seen at the J. W. Wilkie residence in Eden Prairie, Hennepin County, north of Fisher Lake, in December of 1958. By January of 1959, they had apparently moved out. Then a pair (presumably the same pair) was reported in a stand of evergreens on the south shore of Fisher Lake, Scott County. The stand measured about 60 yards east-west and 30 yards north-south and was just across Highway 101 from the Stagecoach Cafe.

On the eighth of February, we again visited the evergreen stand, and this time we found ten individuals (presumably the original pair and eight new arrivals).

Pearson (*Birds of America*, 1942) says of the Long-eared Owl, " . . . not infrequently seen in considerable flocks;" and Bent ("Life Histories," 1938) says, " . . . in some places . . . almost gregarious;" and, " . . . in Utah, a dozen individuals together in a small grove of cedars . . . " This habit of flocking during the winter months has not been previously reported in Minnesota.

The owls were perched in the tops of the evergreens, usually from ten to 12 feet up. As we approached, they peered down with some distress. They next elongated themselves in an alarm position and finally flew off. A few flew only a short distance ahead into the same stand of evergreens, while the others flew in the opposite direction to another evergreen area, closer to the lake.

Several hundred pellets were collected. The first 25 contained skulls of the Common Meadow Mouse (*Microtus pennsylvanicus*). The remainder of the pellets are awaiting examination and will be reported on later. The only non-mammalian pellet found appeared to have contained a kinglet. A Common Meadow Mouse with the top of the skull torn away was found nearby; possibly the victim of an owl attack. A mink was found frozen in the ice in Fisher Lake with the exposed back completely gouged out; another possible owl meal.

Also observed in the same stand of evergreens were a red phase and a gray phase Screech Owl, both perched in the same tree, not more than 12 inches apart.

By March, the owls had left; but the original pair were seen again at the Eck residence in March and April. It is hoped that they have nested or will nest there. — *Ron Huber, Avifaunal Club, Minneapolis, Minnesota*

* * *

WORM-EATING WARBLER AGAIN SEEN IN MINNEAPOLIS AREA — On the first and second of May, 1959 there was a large flight of small Passerine birds in the Minneapolis area. This flight undoubtedly brought with it many Carolinian-zone birds to southern and central Minnesota. I was fortunate enough to find one of these southern stragglers, the Worm-eating Warbler, on the third day of May. It was first found near the northern entrance of the Wildflower Garden at Theodore Wirth Park at about 8:45 a.m. My third and last observation of the bird in the morning was made at 11:30 a.m. This was not the last observation of the day, however, at 2:00 in the afternoon I returned with Ron Huber to show it to him. We found it again about 75 yards from where I had left it in the morning. We then watched it for nearly a full hour before departure. — *Harding Huber, Minneapolis, Minnesota*

Editor's Note: This species was recorded in the same general area by Brother Theodore in the spring of 1958 (*The Flicker*, Volume 30, Number 3, September, 1958). It is a species to be watched for in Minnesota.

CONSERVATION EDUCATION IMPERATIVE — For many years my wife and I have found untold enjoyment in watching the spring and fall migration of colorful shorebirds winging their way through southern Minnesota. On our frequent trips between Mankato and Sherburn, we took off-the-beaten track roads where we would pass slough after slough. Some of the smaller ones would reward us with a lone Hudsonian or Marbled Godwit and on rare occasions with a Hudsonian Curlew. In the larger sloughs, we were certain to see a wide variety of phalaropes, plover, and sandpipers. And in between there were the woodlots and plum thickets visited by the warblers and songbirds. Without leaving the road we could count as many as 90 species on one trip, but for the past three years we have been lucky to count 50 on the best of days because most of the sloughs have been drained, the woodlots cleared and the fence rows tidied. In fact many of the fences are gone, and roads have been widened and sloped so even in areas bordering the small lakes most of the trees have been cut from the lake shore.

What inconsistencies there seem to be in our highway, agricultural, and conservation programs! We have over-abundance of crops creating unsolved economic problems, yet more and more land is placed in production by drainage of wetlands and irrigation of arid ones. We have denuded hillsides, increased erosion, lowered water tables, polluted waters, and water pouring off rapidly through drainage ditches into creeks and river carried with them our fertile and irreplacable top soil. In time this precious soil will be needed to meet the demands of a fast-growing population. Sprays and antibiotics are being employed in limitless quantities to control seemingly undesirable living things with little thought of the danger of certain evolutionary processes that result in resistant species creating even greater damage. There is continual destruction of, and encroachment on, natural wilderness coupled with more people who have increased leisure time, a need for recreation and respite from the fast moving, high pressure life we now live.

Much good has been and is being accomplished by true conservation groups with far-reaching and unselfish objectives, but the demand for more activity grows rapidly because of the accelerated pace of destruction of our natural resources. MOU members are particularly interested in the preservation of our bird population. This means we must do what is necessary to preserve the natural habitat. Unfortunately the up-to-date farmer has little room on his farm for wild life habitat, and the folks in town have fewer trees and shrubs of the sort cherished by our birdlife. Individuals cannot be expected to preserve natural habitats at their own expense. It requires concerted action and cooperation between governmental agencies, conservation groups and individuals. To secure such, there must be education and understanding of the need and benefit of such programs.

Certainly the farmer more than anyone else can observe the ecological orderliness of God's world. It would seem that it is with the young, who look ahead to tomorrow, and those closest to the land with whom we must work to find an answer as to how far we may safely go in artificially disrupting the interrelation and balance of natural forces without creating more problems than we solve.

Without vegetation on our land — our trees, shrubs, grasses, and grains, and marine growth in our waters, there can be no sustenance of life on our planet — a fact long emphasized by the Junior Audubon Clubs. And a regulated animal demand upon such vegetation and our mineral resources is a necessary correlary — all of us are immediately alive to the threat of destruction in the deadly weapons of modern warfare and the dangers of fall-out, but we are complacent about conservation prob-

lems. Yet in the long run, our selfish and careless use of natural resources can have as far reaching and as destructive an effect on the human race as can war itself.

Because our need is so great and our numbers relatively small, our efforts must be expended in the area where it hits "pay dirt," and mushrooms and grows on its own. The fall of the year is a season for fairs, our coming winter months the time of group meetings. Our MOU Clubs and members should take the opportunity these fairs and groups offer for the teaching of basic conservation needs, not only the showing of a few weeds with the sprays available to control, and the pictures or skins of so-called harmful predators in the bird and animal kingdom, but constructive exhibits as well. On my recent trip to Scotland, I attended the Great Britain Stock Show at Ayr and was attracted to an exhibit of birds designated as harmful. There was much interest therein. But why not also, the other side of the picture — the birds that are helpful? People come to these fairs to see new things and carry away new ideas. This would be an excellent chance to do an intelligent job of explaining the principles of ecology, as shown for instance in predator control, and to make clear the vast service our feathered friends can perform for our farmer. Informative pamphlets could be distributed to those to whom they would be most important and useful. Maybe we could even interest a few fair-goers in a bit of recreational bird-watching now that Justice Douglas has returned it to the realm of respectable hobbies. Exhibition booths, a few binoculars, and a few birdwatchers to show an interested newcomer an unobserved bird on the ground, could go a long way toward creating interest in a group that counts.

So, too, our 4-H Clubs, Scout groups and farm clubs welcome programs of this nature. Cannot more of our bird clubs and members supply speakers and exhibits? I showed some bird pictures to one farm group five years ago and have been asked back every year since. There are many in our group better qualified to talk and better equipped than I to do this sort of thing. A little interest here and there can go a long way in creating interest and in preserving at least a small amount of habitat for our bird-life. — *Bill Luwe, Mankato, Minnesota*

The Flicker

VOLUME 31 SEPTEMBER 1959 NUMBER 3

PUBLISHED QUARTERLY BY
THE MINNESOTA ORNITHOLOGISTS' UNION
PERMANENT ADDRESS
MUSEUM OF NATURAL HISTORY
UNIVERSITY OF MINNESOTA
MINNEAPOLIS, 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.

President — Dana Struthers, Box 356, Route 5, Shady Wood Road, Wayzata, Minnesota

Vice President — Douglas Campbell, 3005 W. 54th Street, Minneapolis, Minnesota

Secretary — Miss Amy Chambers, 1005 Portland Avenue, No. 312, Minneapolis, Minnesota

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THE COVER

Photo of Canvasback and American Coot by Dana Struthers. This photo and those contained in the Picture Section were taken by Mr. Struthers in 1955 at San Francisco, California.

THE PRESIDENT'S PAGE

Another session of the Legislature has finished. To a large extent the bills passed, as far as ornithology is concerned, were constructive. All three of the Accipters, Goshawks, Cooper's Hawk, and the Sharp-shinned Hawk are now protected by law. Only birds doing damage can be shot at any time. The average hunter is unable to differentiate between hawks such as the Cooper's Hawk (which some might argue should not be protected), easily confusing them with hawks such as the Broad-winged Hawk, which is beneficial.

The Conservation Department, and particularly Mr. Kimball and Mr. Selke, are to be praised for the stand they have made this year which will favor the waterfowl instead of the hunter. Actually, it will be beneficial to both ducks and hunters as time passes. It has been declared that the duck season will start in the middle of the week instead of a week end and the daily bag limit has been reduced from four to three birds. In Minnesota it has been shown that the great majority of ducks are taken in the first few days of the season. Now the majority of hunters will be unable to get out until the week end following the opening of the season, giving the birds a slight edge. In the past years the ducks have been caught in a two-way squeeze, first, the number of hunters, especially since World War II, has increased considerably; and secondly, because of more expansive farming methods and extensive drainage of wetlands for farming, the amount of habitat for ducks has been greatly reduced. The effect has been an increased pressure in that there are more hunters hunting a much smaller actual area. The results on the ducks has been devastating. In the breeding areas the population has been burned off to such an extent that some of the areas do not have even a nesting population.

Limiting the hunting season should have taken place earlier. However, better now than never, and both Mr. Selke and Mr. Kimball are to be commended for taking a stand at this time.

Every effort on the part of the government to increase habitat for game, whether it be wetlands or uplands, while done primarily at the expense and for the benefit of the hunter, benefits all wildlife and gives the ornithologist a place to enjoy his avocation. Were it not for the funds provided by the various Conservation Departments for such projects, not only waterfowl, such as ducks and geese are provided a home, but many other birds such as grebes, shorebirds, etc., associated with these areas are given a home where they may be studied. The loss of suitable habitat affects all forms of wild life. There is much that should be done now in the way of trying to preserve additional wildlife habitat and wilderness areas, for once these are to be privately developed for farming and other economic projects, they have lost much of their value to many forms of wildlife. In many cases the change in ecology brings eruptions in certain types of wildlife, since one or more of the limiting factors have been removed. The Conservation Department and the University are working in cooperation with private industry to try to learn how they can develop their interests to best advantage, while doing the least of damage to wildlife habitat. It is important that we know the relationships involved in these instances so that we may plan wisely.

Dana Struthers

Wintering Birds of Fraser Township, Martin County, Minnesota

by

Sanford D. Schemnitz and Paul E. Bremer

Winter is a critical period for birds in south-central Minnesota with cover and food often lacking in many areas. With only a remnant of the summer breeding population remaining to face the harsh winter environment, the presence of the few winter resident birds tends to brighten up the oftentimes bleak winter landscape.

The present study was undertaken to ascertain the approximate winter population of several bird species present on an intensively farmed corn belt area. The observations for this winter study were made incidental to pheasant research studies in Fraser Township, Township 13 North, Range 31 West, Martin County, northwest of Fairmont, and 11 miles north of the Iowa border. Beginning December 8, 1958, and ending February 28, 1959, a total of 490 hours was spent observing birds in Fraser Township: 69½ hours in December, 1958; 144 hours in January, 1959; and 266 hours in February, 1959.

Birds observations were made along roads while en route to check pheasant traps and while observing color-marked pheasants. Additional counts were made while on foot during various winter pheasant censuses. No attempt was made to sample the various parts of the Township equally, but one or more observations were made in each of the 36 sections. All observations were tallied and recorded according to date, location, number of birds, and habitat occupied.

The weather during the period studied ranged from mild to severe. The temperature for the three-month period, December-February, 1958-1959, averaged 3.8° F. below normal (Climatological Data, Minnesota, 1958-1959). The extreme temperatures recorded at Fair-

Table 1. Cover and Crop Types, Fraser Township, Martin County, Winter 1958-1959

Type	*Acres*	*Percent of Total Acreage*
Cropland		
Corn plowed	7217.5	30.77
Corn picked	2878.5	12.27
Soybeans plowed	3604.0	15.36
Soybean stubble	230.0	.99
Oats plowed	2197.5	9.28
Oat stubble	957.0	4.08
Alfalfa plowed	644.5	2.75
Alfalfa stubble	1015.0	4.33
Peas plowed	250.0	1.06
Pea stubble	15.0	.06
Total cropland	19,009.0	80.95
Permanent Cover		
Woodlot and buildings	803.5	3.43
Pasture and wild hay	1594.0	6.80
Slough and marsh	221.0	.94
Wasteland (weeds)	14.5	.06
Wooded pasture	891.5	3.80
Grass and marsh burned	63.0	.27
Pasture and wild hay plowed	191.5	.82
Gravel pit	9.0	.04
Lake	112.0	.48
Roadside ditch	363.5	1.55
Fence row	156.3	.67
Tot. Permanent Cover	4419.8	18.86
Overall Total	23,428.8	99.81

mont were —23° F. and +49° F. The period of study was generally dry. The total precipitation for the three-month period was 73% of normal with below average precipitation (22% of normal) for December and January. Precipitation in February was 1.66 inches (42% above average). Maximum snowfall was 21.1 inches for the month of February with 10.8 inches occurring on February 11. However, this snow was followed by three days of mild weather with above freezing temperatures.

The soils of Fraser Township, Martin County, are fine-textured prairie soils, considered to be highly productive for agricultural crops. All 36 sections of Fraser Township were cover mapped (Table 1). In general, land-use during the study period was characterized by a high proportion of plowed land (60.0%) with but a small acreage of standing crops. Burning of ditches, fence rows, and marshland was extensive.

The population density of the various species censused is listed in Table 2. In determining the number of individuals of each species observed, the location of each bird was plotted on a map. Only those birds seen a mile or more apart were considered as separate individuals. The census figures listed in Table 2 should be recognized as being only at best a minimum estimate. Additional individuals of species censused were no doubt present but not observed.

Birds seen frequently throughout the study period but not censused included the Common Crow, Horned Lark, Slate-colored Junco, White-breasted Nuthatch, Black-capped Chickadee, Starling, Tree Sparrow, and House Sparrow.

Table 2. Population density of certain species of wintering birds in Fraser Township, Martin County, 1958-1959

Species	*Number of Individuals Observed*	*Number of Times Species Seen*	*Acres Per Bird*
Cooper's Hawk (*Accipiter cooperii*)	1	2	23,040
Rough-legged Hawk (*Buteo lagopus*)	6	6	3,840
Marsh Hawk (*Circus cyaneus*)	1	1	23,040
Mourning Dove (*Zenaidura macroura*)	11	11	2,094
Great Horned Owl (*Bubo virginianus*)	6	6	3,840
Barred Owl (*Strix varia*)	2	1	11,520
Yellow-shafted Flicker (*Colaptes auratus*)	12	13	1,920
Red-bellied Woodpecker (*Centurus carolinus*)	3	3	7,680
Red-headed Woodpecker (*Melanerpes erythrocephalus*)	2	1	11,520
Hairy Woodpecker (*Dendrocopus villosus*)	4	2	5,760
Downy Woodpecker (*Dendrocopus pubescens*)	13	30	1,772
Blue Jay (*Cyanocitta cristata*)	6	3	3,840
Meadowlark (*Sturnella magna*)	44	22	522
Red-winged Blackbird (*Agelaius phoeniceus*)	48	11	480
Cardinal (*Richmondena cardinalis*)	2	4	11,520
American Goldfinch (*Spinus tristis*)	12	1	1,920
TOTAL NUMBER OF INDIVIDUALS	173	117	
ACRES PER BIRD OF ALL SPECIES			133.2

The birds observed were not uniformly distributed throughout Fraser Township, but were restricted to certain types of cover. The use of the various cover types (Table 3) in relation to their availability in acres (Table 1) provided a measure of their relative importance. Two cover types, woodlots and adjacent building sites, as well as willows and brush, apparently were of major importance. They comprised 67.7% of the total cover-use observations (Table 3) but only 4.4% of the total acreage (Table 1). All species studied were observed at woodlots and buildings. Plowing was little used by resident birds during the winter period since this type made up 60.0% of the total acreage but only 9% of the total cover-use observations. Certain species were associated with particular cover types (e.g. woodpeckers with woodlots; Red-winged Blackbirds with slough and marsh). Other species such as meadowlarks occupied several cover types (Table 3).

The relatively high use by several winter bird species of sloughs and marshes and willows and brush (25.8%) illustrates the importance of these areas to winter bird life. Efforts should be made to preserve these areas whenever possible. — *Fairmont, Minnesota*

Table 3. Cover-use by certain wintering birds, Fraser Township, Martin County, Winter 1958-1959.

Number of Observations of One or More Birds

Cover Type	*Meadowlark*	*Four Species Woodpeckers**	*Bluejay*	*Mourning Dove*	*Three Species Hawk***	*Two Species Owl****	*Flicker*	*Cardinal*	*Red-winged Blackbird*	*Total*	*Per Cent of Total*
Plowing	1	....	....	....	....	....	....	....	....	1	.9
Corn stubble	7	....	....	....	....	....	....	....	....	7	6.3
Woodlot and building	2	27	3	4	4	2	11	3	3	59	52.6
Slough and marsh	....	....	....	....	3	....	....	....	9	12	10.7
Roadside ditch	4	....	....	2	....	....	....	....	....	6	5.4
Willows and brush	....	7	....	3	2	4	....	1	....	17	15.1
Wooded pasture	....	2	....	....	....	....	1	....	....	3	2.7
Pasture	4	....	....	....	....	....	....	....	....	4	3.6
Oat stubble	1	....	....	....	....	....	....	....	....	1	.9
Aalfalfa stubble	1	....	....	....	....	....	....	....	....	1	.9
Fence row	....	....	....	1	....	....	....	....	....	1	.9
Total	20	36	3	10	9	6	12	4	12	112	100.0

*Downy, Hairy, Red-bellied, Red-headed

**Rough-legged, Marsh, Cooper's

***Great-horned, Barred

How To Mist Net Birds

by

Gary C. Kuyava

All you have heard of the success of Japanese Mist Nets is true. Mist nets have completely revolutionized bird banding. Never before could a bander follow the birds as easily as mist nets permit him to do. Always, he would have to wait for the birds to come to him, or carry bulky traps to the birds. With the advent of Japanese Mist Nets in the United States in 1947, bird banders quickly learned of their potential. Many species, not found by "birders" nor caught in banding traps have turned up in mist nets on the same day in the same area.

Assuming that you already have a Federal Banding Permit which allows you to trap birds in conventional traps only, and you think you want to try mist nets, you must do the following things before you send your permit in to get it amended:

1. Read all the literature you can find on mist netting birds, including "Banding With Mist Nets" by Seth H. Low in *Bird Banding*, Vol. 28, No. 3.

2. You must spend enough time with an experienced mist netter so that you will know exactly what to do when you begin to net without assistance. A minimum time expenditure at "Mist Netting School" should be no less than one full day of fairly active netting.

Instructions are extremely necessary to be sure that you are capable of handling mist nets. Extreme patience is sometimes necessary as some birds are apt to get pretty badly tangled and one does not rush while removing birds from a net. If a bander rushes, a high mortality rate will soon be realized by him.

Send the name of your instructor in with your amendment request. It may take as long as three months to process this amendment, so send your permit in to the banding office about three months before the next migration so that you may take full advantage of it.

3. Make sure that your fingers are dexterous and that your eyesight is so corrected to permit you to extract a bird from the net with as little difficulty as possible.

Taking for granted that most of the readers have already or will soon see mist nets, I will not take the time or the space to describe them to you. I will, however, give you some hints on the mechanics of mist netting.

1. *Where to buy mist nets.* Mist nets may be obtained from only two organizations that I know of. There may be others. They will be glad to send a price list of the various nets which they handle. Bleitz Wildlife Foundation, 1001 North McCadden Place, Los Angeles 38, California. Northeastern Bird-Banding Association, E. Alexander Bergstrom, 37 Old Brook Road, West Hartford 7, Connecticut.

2. *How to choose a net.* When you are about to order your nets, consider the length which you think would be most easy for you to handle. Most netters that I know use a net which is 60 feet long. Some prefer a net length of 30 feet. No one that I know of uses a net of less length than 30 feet. Also in deciding what length to purchase, you must decide how large an area you can cover with one net, i.e., if you band in your yard which is limited in size, you may want to use a 30 foot net instead of a 60 foot net.

3. *How to erect a mist net.* Some people prefer to attach a net to hooks

on a tree or a permanent post. After a few tries, you will find that very few trees grow exactly 30 or 60 feet apart. And posts will not allow you to adjust the tension on the net's shelf strings. The shelf strings tend to stretch or shrink depending on the amount of humidity in the air. Others use channel or angle iron which has hooks punched out of one side to attach the shelf strings to. I think they are much too heavy. Still others would use bamboo poles. They are too fragile, and cannot be driven into the ground.

By far the best net support is thinwall electrical conduit. It is very light, durable, and can be transported easily. I can only purchase it in lengths of 10 feet. A 10 foot pole is the best, however. At least one foot has to be driven into the ground. If you stretch a net so it is seven feet wide you have a choice of putting it low to the ground or approximately two feet from the ground, i.e., the lower shelf string. To facilitate storage and easy packing in the car, cut the 10 foot pole in half. When you wish to erect the nets, use an ordinary conduit connector to fasten the two halves together. This provides a reasonably steady support. One hundred feet of thinwall conduit should cost no more than $15.00. This price is maximum and includes 10 conduit connectors. It is a good idea to purchase two or three extra conduit connectors and one or two extra lengths in case of loss while on a banding trip.

For those of you that live near a hawk flyway and are forced to net hawks in extremely heavy winds, use thick-walled conduit. This will not bend, as the light conduit will do, under heavy strain. The only disadvantages in the use of thick-walled conduit are that it is about three times as heavy and twice as expensive as thin-walled conduit.

If the ground is too hard to drive the conduit in by hand, a steel spike can be purchased at a local blacksmith shop or scrap yard for a very nominal fee.

When you are putting the nets on the poles make a double loop of the heavy loop at the end of each shelf string. This will hold the shelf in place as long as the shelves are fairly tight.

When the net is placed on the poles, unfurl it and drive the poles in the ground so that the top shelf string is the tightest, but do not make it so tight that it may break if a larger than average bird hits the net. Also, make sure that the other shelves are not so loose that they sag. This will prevent the center of the net from dragging on the ground.

4. *Net storage.* The only efficient way to store nets while not in use is in small cloth bags. The net may be taken off the pole and put in the bag, or it may be left on the poles, now disconnected from the top half and with the net rolled up, put the net in the bag. Leave the connector on the bottom pole. This will prevent loss and will also prevent the net from sliding off the end of the pole when in storage.

5. *Gathering cages.* What would happen if you had five 60 foot nets filled to capacity with birds? These birds are of different species, some small, some large, some harmless, some murderous, and you were caught with only one small gathering cage. You would be a hopeless mess.

Many people use screen cages of various sizes. These are good for a few birds. But when a bander is confronted with 60 to 100 birds at one time, screen cages leave something to be desired. A great many birds in a screen cage will cause some to be injured. Birds must be kept in the dark. The best gathering cage I have ever seen is a simple scrub pail of about 12-14 quart capacity. (Some banders use pails of five gallon capacity.) Over the open end of the pail stretch two pieces of automobile tire innertube. Overlap these two pieces so that no birds will escape when you are putting in or taking out other birds. A few air holes may be poked into the side

of the pail. Some holes must be punched into the bottom of the pail so that the moisture will not collect. Some dry grass or evergreen boughs on the bottom of the pail will prevent birds from getting wet. Change this grass every day!

If you follow all of the above directions you are ready to net birds. This is, by far, the hardest part of mist netting. Great care must be used in following all netting procedure.

1. *Where to set nets.* Nets may be set wherever there are birds. Many excellent netting areas are near at hand. Your own trapping station is one of the best netting areas you will find. Any beach which shorebirds inhabit is excellent. A narrow spit of brushy land projecting into a large lake is always a good spot to catch migrating warblers, sparrows, etc. Springs and small ponds are excellent netting areas in dry seasons. Mud flats are also very productive areas.

When selecting an area, choose one that is as remote as possible. People, cows, horses, dogs, cats, etc., find a net just as invisible as birds do. If they happen to run into it, they will tear a net to pieces.

Now that you have the netting area picked out, you are wondering what to do with it. "How do I set a net in that tangle?" you ask yourself. It's easy! All you have to do is cut through it! An axe, machete, hedge clippers, etc. would be very helpful here. An ideal net lane is about four feet wide and three feet longer than the net. It is underlaid by smooth grass. Realizing that smooth grass is not always possible you must remove all sticks, stones, and big-headed weeds from the net lane. Be sure to set your nets at right angles to the flight of the birds if at all possible.

2. *How to remove a bird from the net.* This is the most crucial operation of a bander's life. This is why a period of instruction is absolutely necessary! You will find a summary of the important steps to follow in the article by Seth H. Low in the volume of *Bird Banding* referred to in the first part of this article. I might add that a comb is a very handy instrument with which to find lost strands of netting around the bird's wing or head.

As with all aspects of banding certain precautions must be taken to safeguard the lives of the birds which you will catch. Many precautions you may already know from your trapping experiences, so I will just mention those which pertain to mist netting.

1. *How often to check set nets.* In times of many birds I check my nets every half hour. In times which are slower nets should be checked every hour on the hour. To extend either of these periods would, indeed, be stretching your luck. More time would give predators a better chance to kill your catch, for too many birds to be caught in a net, some birds may become hopelessly entangled, and some birds will work themselves free if left in the net too long.

2. *When to dismantle nets.* Take down nets in plenty of time before leaving, storms, and nightfall. A net full of birds cannot and must not be rushed! A trap can simply be opened and all birds have a way of getting out, but in a net, all birds must be removed one by one.

3. *Do not set nets in excessive wind.* Wind exerts a great deal of pressure on the nets which in turn exerts a strong force on the necks of any birds caught in the net. Many birds can be strangled needlessly by a net in the wind.

4. *Do not set nets in excessive cold.* Birds caught in a net on a cold day will chill much quicker than a bird in a natural position waiting to be removed from a trap.

5. *Do not set nets in rain.* Rain, nets, fingers, and feathers do not mix. Birds get excessively cold. They lose many feathers when a bander tries to untangle them, fruitlessly too, I might add.

6. *Should nets be left set overnight?*

This question depends on the type of habitat and weather conditions more than anything else. If storms are brewing or strong winds arising, nets should be taken down lest they be destroyed by falling branches. If leaves are falling and large insects are flying, take nets down as soon as the light fails. Consider also, bats. These animals will chew large holes in nets and they can inflict painful and often infectious bites. As to the question of habitat, I shall divide this into two types, upland and marsh or beach. It is fairly safe to leave nets set in upland habitat over night unless they are placed in an area where roosting birds are likely to be disturbed by the slamming of a door or the turning on of an outside light. They should, however, be thoroughly checked a short time after dark, as some birds go to roost rather late. This last check will be somewhat facilitated by a powerful flashlight. One should also consider the presence of large owls before leaving a net set over night. A small bird net will hold a Saw-whet Owl and sometimes even a Long-eared Owl, but they will never hold a Great Horned or a Barred Owl. It is a wise practice to raise the bottom shelf of the net about two feet above the ground during the night to allow night prowling animals to walk under it. You know well what will happen if you catch a skunk! Other animals may not be so obnoxious, but they can do just as much damage to a net. Beach and marsh habitat is the exact opposite. Shorebirds seem to be active all night long. If nets are to be left up they should be checked at the intervals stated in 1. above. One should also consider the possibility of a bird drowning in a net set over water, so raise the net's lower shelf string accordingly.

7. *Public relations.* To the uninformed, a bird in the net may be going through the most intolerable bit of horror it may ever experience. You and I know that the bird, if correctly treated, will be released unharmed, but to the uninformed, damage is being done. Also, these people can do a great deal of harm to the entire banding program through their complaining to the police, game wardens, etc. Although netting is not and should not be a hush-hush affair, one should avoid setting nets near sidewalks or other lanes of travel. A bander might notify neighbors, mailmen, milkmen, etc. about his activities.

8. *Station visitors.* Station visitors should be most welcome — at a distance! Nets are delicate enough with knowing hands managing them, but when a group of people who are only too interested and too helpful get their clumsy fingers, feet, heads and eyes in and on a net, nothing short of chaos breaks loose. Children should never be allowed in a banding area unless accompanied by adults, and adults should never be allowed into a banding area unless accompanied by the bander. Let this be your rule above all others regarding station visitors! It is not necessary to tell you that domestic pets should never be allowed into a trapping area.

I hope this article has been of some help to the prospective mist netter. I know that I read with fervor, over and over, all the material I was able to obtain before I decided to use mist nets. — *Duluth, Minnesota*

M.O.U. WINTER MEETING

The annual winter meeting of The Minnesota Ornithologists' Union will be held on December 5, 1959. As usual the meeting will be held in the auditorium of the Museum of Natural History, University of Minnesota, Minneapolis, Minnesota. Those people interested in submitting papers for this meeting or requiring additional information should contact Harvey Gunderson at the Museum of Natural History.

Seasonal Report

by

Mary Lupient

Following a very dry season during the first four months of 1959, heavy rains fell in all parts of the state bringing precipitation up to normal by the end of July. In southeastern Minnesota, rivers rose to flood stage in May. There were intermittent periods of heat and cold and at times in June the temperatures rose to above 90 in the south and at other times the weather was cold enough to register temperatures down near freezing in northern sections. In the Twin Cities robins built their nests later than usual, possibly due to the dry weather. In May and June the migration of most species proceeded normally.

Brother Theodore, Robert Janssen and others traveled through the state this season and Brother Theodore sent the following interesting and important reports. May 6, there were two nests of Yellow-crowned Night Herons near La-Crescent, Houston County. He saw only two birds. On June 13, he and others observed two King Rails north of St. Paul, Ramsey County in a marsh at County Road D and Highway 8. East of Anoka there were many Upland Plovers and also Lark Sparrows. They found a Yellow Rail in Becker County June 27, which they were able to flush and capture when it became entangled in vegetation. Along with several others, it was calling when they found it. They then went on to Rothsay, Wilkin County, where they saw a Marbled Godwit with three young and many Upland Plovers. Near Waubun, Mahnomen County, LeConte's, Savannah and Grasshopper Sparrows were common. In this area they observed three Greater Prairie Chickens and a Short-eared Owl. About the Middle of May they went to Salt Lake, Lac qui Parle County where they saw Eared Grebes, Wilson's Phalaropes, about 120 Northern Phalaropes, one Western Willet, Marbled Godwits, Hudsonian Godwits and most of the other shorebirds that normally pass through Minnesota. In Traverse County there was one Western Sandpiper, three American Avocets, six Western Grebes and a goodly number of White Pelicans. On this trip they saw two Burrowing Owls.

Most of the spring shorebird migration occurred in the central and western parts of the state, at least nearly all reports came from there. W. R. Luwe saw a large concentration of shorebirds May 10, in Martin County, among them Wilson's Phalaropes and Golden Plovers. Observers in eastern Minnesota were not very fortunate in finding shorebirds due to low water levels. Baird's Sandpipers were seen in Ramsey County May 31 and a mixed flock of shorebirds loitered near Birch Lake, Ramsey County, the week of May 19. First reports of returning shorebirds, a few Lesser Yellow-legs, Leasts and one Western Sandpiper were received from A. C. Rosenwinkel. He saw them in Hennepin County and may have been non-breeding birds.

There was a sizable movement of Gray-cheeked and Swainson's Thrushes May 9, May 16 and May 22.

A very heavy wave of warblers occurred in the Twin Cities May 8 and a wave was observed by Mrs. George Lehrke in St. Cloud on the same date. This movement must have been heavy throughout the state because reports came from western sections, also. A Black-throated Blue Warbler was reported by Mrs. E. W. Joul and others in Robert's Sanctuary, Minneapolis while they were observing this migration. A

light wave of nearly all species passed leisurely through the state the third week in May. The Prothonotary Warbler nested again on the Vermillion River near Hastings, Dakota County and at Frontenac, Goodhue County. One apparently was looking for a nesting site on the Minnesota side of the St. Croix River near Osceola, May 19. In the same area a Blue-gray Gnatcatcher was seen. A gnatcatcher was reported near North St. Paul and Mrs. E. W. Joul discovered four pairs near Vasa, Goodhue County, May 17. The Blue-winged Warbler was present, also.

Mrs. C. L. Patchin reported that Tufted Titmice again nested at her home on the Minnesota River and they were successful in bringing off two young. Mrs. Harlow Hanson, who also lives on the river near Bloomington, Hennepin County, stated that titmice nested and brought two young to her yard. Titmice still go to the E. Rogier feeder near Lake Minnetonka but there has been no visible young.

The peak of the migration of White-throated Sparrows and White-crowned Sparrows occurred the second week of May.

There was a very large number of robins in migration this spring and from all reports there was a successful hatching everywhere in the state in June.

The peak migration of Nighthawks took place May 16; they were reported from many localities on this date.

This was a Dickcissel year. They sang from fence posts and telephone wires throughout the countryside in the south half of the state mostly, as usual, near alfalfa fields.

A late record of migrating Blue and Snow Geese was reported by Brother Theodore. He saw about 200 fly over Minneapolis May 10.

The movement of flycatchers, vireos and swallows was normal.

John Jarosz and Harvey Gunderson of the Museum of Natural History reported the unusual circumstance of a Mourning Dove feeding three young, apparently all one family. Roberts, in the "Birds of Minnesota," states that rarely three eggs may be found in a Mourning Dove's nest and that three young may be reared.

The rare record of a Scissor-tailed Flycatcher was reported by James Lundgren. He saw it June 5 in Anoka County. It remained in the area for some time and he saw it more than once. There were strong winds at times in May which may have blown it up here so far from its home.

Carolina Wrens are not often seen as far north as the Twin Cities. A. C. Rosenwinkel saw one near St. Paul, Ramsey County, May 9.

It was reported that ducks had fewer nesting places this season due to the dry weather, especially in eastern areas, which may curtail the production. There were records of the Hooded Merganser in Hennepin County; this writer saw a male May 19 on a pond near White Bear, Ramsey County, and A. C. Rosenwinkel saw two young July 8. Mrs. E. W. Joul saw a female Hooded Merganser in Dakota County, May 17.

Apparently, Least Bitterns were numerous this season. There were several reports, one from Joel Bronoel who saw one within the Minneapolis city limits, July 9.

Large colonies of Cliff Swallows in Marshall County, were reported by William Longley. They utilized old buildings, bridges and farm buildings for their nesting sites. The colonies numbered from two to four hundred birds each.

Ernest H. Strubbe, Stevens County, stated in a letter dated July 13 that a pair of Marbled Godwits hatched two young in the county. He stated also that from six to eight hundred White Pelicans are spending the summer on Frog Lake and Flax Lake, Stevens County, about three or four miles south of Alberta. To his knowledge, these birds appeared for only a brief visit during some summers and in small numbers.

He stated that they appeared to be nonbreeding birds.

A letter dated June 4 from Delmar Holdgrafer, Donnelly, in Stevens County, stated that Bluebirds were raising a family in one of his birdhouses, which is unusual out in prairie country so far west. This spring the Eastern Bluebird population increased in southern and eastern Minnesota. Mr. Holdgrafer stated, too, that on the last day of May he took telephoto shots of two American Avocets near Donnelly. He observed a Mockingbird May 1. Besides this observation there were several other reports. Mr. and Mrs. Pottsmith saw a Mockingbird with food in its mouth at Lost Lake near Biwabik, St. Louis County, which could indicate a nesting. Mr. and Mrs. Jerry Peleaux of Willmar saw a Mockingbird in Gooseberry Park, Lake County, the week end of Memorial Day. Only one bird was seen. The last week in April, Alice Lang saw one in Minneapolis and Robert Janssen found one on the sand flats near Zimmerman, Sherburne County, the middle of June. Two were banded by C. Johnson, April 30 and in mid-April one was reported in Washington County, by C. Bjorndahl. They were in Aitkin County, May 16-17, reported by William Pieper and in Cass County, reported by H. Hanson.

Again this spring in April and May, Common Egrets appeared in various localities, mostly in river valleys and lowlands. On June 26, Dr. Woodward Colby reported to the Museum of Natural History and to this writer that about 30 Common Egrets appeared every evening and dropped into a tree growing on a wooded island in the Mississippi River, and which could be observed from his home. Upon investigation I found that they arrived in groups of from one to five every evening from sundown to dusk. They landed in the top of the same tree and gradually worked down into it until they were hardly visible. This tree and another nearby contained several nests, some of them occupied by Great Blue Herons and young herons. The Egrets were not seen during the day so presumably they were away at their feeding grounds, returning in the evening. Finally it became apparent that they came there to roost. Bent, in his "Life History of Marsh Birds," describes this roosting habit of the Common Egret. From this description, I quote the following in part, "Unlike some other herons, the American (Common) Egrets do not feed at night but resort regularly to favorite roosting places where large numbers congregate. They gather at the roosting places just before dark, spend the night in the trees and scatter out over the surrounding country early in the morning. Audubon (1840), Maynard (1896) and Chapman (1892) all refer to this roosting habit. Audubon 1840 writes, 'The American (Common) Egrets are much attached to

their roosting places to which they remove from their feeding grounds regularly about an hour before the last glimpse of the day, to some secure retreat. After some gratulations they lower their bodies on the stems of the trees or bushes on which they have alighted, fold their necks, place their heads beneath the scapular feathers and adjust themselves for repose. Daylight returns and they are all in motion.' Dr. Chapman (1892) refers to a roosting tree in Cuba as follows: 'There was a flock of about 20 birds at San Pablo which came each night to roost in a tree at the border of the river. They appeared with much regularity after sunset and after circling about the tree once or twice, alighted in its branches. This rookery was but 200 yards from the houses and mill of the estate and not more than 60 feet from a well traveled road'."

Although the roosts described above by Bent, Audubon and Chapman were in localities in southern territories, these accounts accurately describe the roost here in Minnesota as observed by Dr. Colby and myself, and as far as I know, is the only roost recorded in Minnesota, although Common Egrets are known to nest near Hastings and other areas.

The Minnesota Ornithologists' Union held its annual meeting and field trip May 30-31 at Douglas Lodge, Lake Itasca. About 100 members were present. The weather was cool and at times rain fell, but never-the-less the area was teeming with birds. Nearly all species of warblers were found, including the Black-throated Blue seen by Mr. and Mrs. W. R. Luwe.

Almost everyone saw the Black-backed Three-toed Woodpecker which appeared to be nesting in one of three holes in a live evergreen tree. Both male and female were present. While under observation, the male spent most of its time in the one hole around which the bark had been stripped away. Apparently concerned about the presence of a Yellow-bellied Sapsucker, he kept popping into the entrance of the hole to peer out. Finally he came out into the sunlight to show his satiny black back and his divided tail with which he braced himself against the tree. His three toes were evident, two forward and one back. — *Minneapolis, Minnesota*

CORRECTIONS

Volume 31, Number 2, Page 32, under Long-tailed Jaeger, Warren, Lac qui Parle County, Minnesota, should read as follows: Warren, Marshall County, Minnesota.

Volume 31, Number 2, Page 33, second paragraph should read as follows: On a visit to Kansas . . . not Kasson.

The Canadian Lakehead

by

A. E. Allin

April was dry and warm, the temperature 1.0° above normal; the precipitation of 0.89" was much below the average of 2.06". As in March, we were blessed with sunny days — 222.4 hours of sunshine. The May temperature was 0.9° above normal, but it was the wettest May, except for 1953, since 1883 with a precipitation of 5.1", almost twice the normal. After six months of above average sunshine, May had slightly below the 210 hour average with only 189 hours of sunshine. June was dry and sunny with 262 hours, well above the average 215. Again, the temperature was 1° above normal; the precipitation of 1.78" was much below the average of 3.24".

There should be a good crop of fruit this year. Too frequently a frost in late May or early June kills the fruit buds. This year the last frost locally occurred on May 17, the earliest in 18 years. The average date is June 3. On June 30, however, the temperature dipped officially to 36° and there were complaints of frost damage from outlying regions.

In general, the migration was an average one. Ornithological circles have expressed fears for certain birds, especially four they considered crash species, viz: the Eastern Bluebird, Phoebe, House Wren and Hermit Thrush. Although the Hermit Thrush migration was limited to a brief period in early April, we have no further evidence of its scarcity. The House Wren is more common than it has been for several years. The Phoebe, recently scarce, now seems to be re-occupying its old nesting sites. The Bluebird has never been abundant here, but a goodly percentage of birdhouses erected for it are occupied. It is of interest to refer to an item written by Lynds Jones in 1912. (The Wilson Bulletin *24*:(4): 197, 1912). He noted Bluebirds were very scarce in northern Ohio in the early spring and summer. Only two out of the five usual pairs returned to his farm. Yet these two pair each raised two broods of five young each.

We are concerned with one species formerly common in the Lakehead area. This is the Bank Swallow. I do not know of an authentic record of this species locally in the past two years. Dr. Harold Axtell, traveling from Buffalo, north and west through Ontario to the Lakehead, noted a single colony at Klotz Lake, 150 miles northeast of Fort William. On the other hand the once rare Cliff Swallow is now abundant. The late Colonel Dear never saw the species from 1905 until 1939, when I found a pair nesting at Silver Islet, although he had heard they nested in O'Connor Township — "formerly". Today, we know of many large colonies both locally and throughout northwestern Ontario.

From our notes we would gather there had been five main waves of migration this past spring. From April 7-9, there was a good migration of Sparrow Haws, Snow Buntings, Redwinged Blackbirds, Brown Creepers, Slate-colored Juncos and Common Golden-eyes. April 25 was cold with snow. The following day Slate-colored Juncos, Fox and Tree Sparrows, Yellow-shafted Flickers and late-migrating Robins were very common. On May 3, there was a heavy movement of ducks. Green-winged and Blue-winged Teal and Shovelers arrived and there was an increase in the population of other pond ducks. May 7-10 saw a good mixed flight including an Eastern Kingbird on May 10, and an Olive-sided Flycatcher on May 9. These

are new early records for the area. Bluebirds, Vesper, White-crowned and Savvanah Sparrows, Palm Warblers, Pine Siskins, Common Snipe, Winter Wrens, Upland Plovers and Mourning Doves appeared during this period.

We spent May 15-18 in southern Minnesota where it was very hot. Returning on May 18 we met an extreme cold wave at Duluth. Many Robins and countless Tree Swallows appeared to be held back by the unfavorable weather.

On May 18-23, there was a terrific flight of warblers. This was particularly pronounced at Atikokan on May 19. Kerkoerle reported a wave at Marathon during the same period. Olive-backed Thrushes, Veerys, Least Flycatchers and many Chipping Sparrows arrived during this period.

We have wondered throughout the years, particularly as it related to hawks, as to where the dividing line in migration along the north shore of Lake Superior might be. Surely, local birds entered from the southwest. Just as surely one would expect the area west of Sault Ste. Marie to be populated by migration from the south and east. J. Kerkoerle, a reliable observer from Marathon, 150 miles northeast of the Lakehead, states the geese fly directly across Lake Superior but that the main migration at Marathon follows the lake shore from the east. He partly substantiates this by his observations of Slate-colored Juncos and Tree Swallows on April 6 and April 27, whereas they were not reported locally until April 7 and May 9, respectively.

But we should add that Mrs. Peruniak reported hundreds of Tree Swallows at Atikokan, 167 miles west of Fort William, on April 28! The subject is worthy of much more study.

Discussion of most of our species can well be done under their separate groupings but special reference should be made to the Mockingbird and to the Yellow-headed Blackbird. The former has been recorded at the Canadian Lakehead on at least eight occasions. On May 11, Keith Denis saw one at Ignace. Mrs. Peruniak saw four at Atikokan on May 20 and Mrs. Howe saw one at Dryden on May 19. The Yellow-headed Blackbird has rarely been recorded in northwestern Ontario but, as reported in these columns in previous issues of *The Flicker*, it was seen on at least three occasions at the Lakehead in 1958. T. Swift saw one of these western visitors on May 5 in the Black Sturgeon area and two more later in the month in the same region. W. Zaworski saw one in Fort William on May 24 and the Allins were fortunate enough to see another on the same day. Mrs. Howe reported one on May 24 and four on June 3 at Dryden.

Two breeding records are of even more interest. On May 23, K. Denis discovered Long-billed Marsh Wrens in a marsh on Pickerel Lake in the Sibley Peninsula. On June 14, he and David

Allin found nine dummy nests in the marsh. This is a new species for Thunder Bay District. The Eastern Meadowlark, although common at Duluth, was not recorded from the north shore of Lake Superior until 1957 when the Speirs heard one singing at Dorion. On May 24, 1959, Dorothy Allin and I concentrated our observations on the immediate vicinity of Fort William. In addition to the Yellow-headed Blackbird, we saw two Hudsonian and 11 Marbled Godwits — a satisfactory outing. Later in the afternoon, in Neebing Township, we heard our first local Eastern Meadowlark and located the pair in a large grassy field. On June 10, I returned with K. Denis and the Robbs and was successful in locating the nest with four half-grown young — another new breeding record for the Lakehead.

Loons and Grebes — Walter Zaroski saw a Common Loon on April 14, a new early record. As usual, a pair nested on Pickerel Lake, Sibley Peninsula, where its nest was readily seen from the main road. Both Horned Grebes and Red-necked Grebes were present in the park on May 23. Incidentally, we encountered large numbers of Horned Grebes along the Lake Superior shore between Two Harbors and Duluth on May 14.

Ducks, Geese and Swans — In general, the duck migration was satisfactory. Redheads were uncommon and late in arriving. American Widgeon were very common. The goose migration was poor. Kergoerle reported from Marathon that the main movement of Canadas was in the third week of April. Migration was more prolonged than usual. The main goose flight occurs east of the Lakehead. Our only Blue Goose was discovered on May 19; no Snow Geese were seen. A Whistling Swan was seen on April 19 and another on May 3. K. Denis and David Allin found a nest of the Ring-necked Duck containing 10 eggs, on June 14, on the shores of Pickerel Lake.

Hawks — Hawk migration was uneventful. From Marathon, Kerkoerle sent a belated report of a Gyrfalcon seen there on April 19. Dorothy Allin pointed out a Turkey Vulture over Pigeon River on June 28. This is the fifth record for Thunder Bay District. Mrs. Howe reported a Turkey Vulture at Dryden on May 7. They are more common in Kenora District than they are further east. On June 16, school boys located a nest of a Goshawk on the banks of the Kaministiquia River. We regret they shot an adult, cut down the nesting tree and destroyed two of the four young. The Dear collection contains three eggs taken in 1933 at Saganaga Lake by the late J. Jacob. We have no other definite breeding record for this hawk. More successful is the Bald Eagle which is raising its young in a nest at the top of a white pine tree in Sibley Park. The tree is at the foot of a steep hill along a main road which permits the unusual chance to observe the nest at eye level.

Grouse and Partridge — In the last *Flicker* we commented on the abundance of Ruffed Grouse. They have remained very common, the females being accompanied by broods varying from one to 11 young. The first brood of newly hatched young was seen near Nolalu on June 6. On June 15, Gregory Kemp killed a Gray Partridge with a cutting mower. She had been incubating 24 eggs! No Spruce or Sharp-tailed Grouse or Ring-necked Pheasonts have been reported.

Rails and Cranes — Four Sandhill Cranes were seen by the Atkinsons at Dorion on April 30. They remained a few days. We saw two Sandhill Cranes in that area on September 6, 1941. Five were seen at Silver Islet on September 27, 1892 and four were seen at Whitefish Lake, September 30, 1939. Dr. E. N. Wright found one dead on October 9, 1952 and W. Zaroski saw one in Fort William on June 13, 1958. At Pickerel Lake, K. Denis observed a Virginia Rail on June 21. This is the fourth local record for that southern visitor. Wilson's Phalaropes were seen in two areas

on May 24 by K. Denis and W. Zaroski.

Plovers through Terns — As a whole, the wader migration was poor although 15 Dowitchers were seen on May 15 and the two Godwit species on May 24. Personally, I failed to see a Black-bellied or Golden Plover, a Turnstone or a Solitary, Baird's, White-rumped, Red-backed, Least or Semipalmated Sandpiper. Admittedly, the waters were high but this is not a satisfactory explanation for their scarcity. Yellow-legs were not uncommon. Five nests of Woodcock were found. There were only three previous breeding records. At least two pair of Upland Plover returned to the fields they have occupied for many years. Mrs. R. M. Beckett observed one brood of young. Common Snipe were reported more frequently than for several years.

Again, a few Ring-billed Gulls and at least two Bonaparte's Gulls were reported but no Iceland or Glaucous Gulls were seen. From northern Kenora District comes a belated report of an Ivory Gull killed at Severn Lake, 200 miles south of Hudson Bay in 1958 by a member of the Bearskin Indian band. The skin is in the Ontario Museum of Zoology collection. No Terns have been reported this year.

Doves — As indicated on previous occasions, the Mourning Dove is gradually increasing in Thunder Bay District. Whereas formerly, a single bird might be seen in a season, during 1958 it was seen frequently. It is again relatively common. On June 10, we found a nest containing two young, at Dr. Hogarth's tree nursery where it was first found breeding in 1958. On our Frontenac trip in mid-May, we saw a Dove, one mile north of the Cascade River, and one at Baptism River on May 14 and another one mile south of Grand Marais, May 18. During this period, K. Denis saw one in the same region. This species is rapidly extending its range northward. Kerkoerle reported one at Marathon on April 19 and again on May 24. This is the farthest north it has been reported along Lake Superior. It again appears at Sault Ste. Marie, but we suspect these are Eastern Mourning Doves, whereas ours should belong to the western race, as should the one seen by Mrs. Howe at Dryden on April 18.

Cuckoos through Swallows — David Allin reported the first Black-billed Cuckoos on May 30. Few have been subsequently reported. They did not arrive in Manitoba in numbers until mid-June. At least four Whip-poor-wills were heard calling in Scoble Township on June 1. This is the only area where they can regularly be found although one was heard on May 5 near Kakabeka Falls. Kerkoerle reports a Red-headed Woodpecker at Marathon on May 21. Black-backed Three-toed Woodpeckers breed in Sibley Park. The Spiers found two nests there in 1957 and S. Walsh, park naturalist, found a nest in June on the shores of Lizard Lake. Pileated Woodpeckers continue to increase in numbers. Flickers are very common this year. We noted above the absence of Bank Swallows, and the abundance of Cliff Swallows. Barn Swallows remain common. Tree Swallows occupy 50 per cent of nesting boxes put out for Bluebirds. A Rough-winged Swallow was seen on May 6 by K. Denis. There are few records for the occurrence of this species in Thunder Bay District but one breeding record. No Horned Larks were seen locally, but K Zroback saw a flock at Geraldton on May 1.

Jays through Shrikes — Canada Jays and Ravens are both breeding in the Sibley Park region. Young Canada Jays were seen just outside the park on May 23 by K. Denis. House Wrens are again common. Short-billed Marsh Wrens have been seen in Sibley Park and in Fort William. The latter colony is the largest we have seen locally. We noted above the Sibley Park Long-billed Marsh Wrens. The only Catbird reported was one seen by David Allin in Sibley Park on May 30, where he saw a Brown Thrasher on May 26. Several other

thrashers have been reported. Reference should be made to an earlier paragraph dealing with the unusual influx of Mockingbirds to the west of the Lakehead. Robins, Swainson's and Willow Thrushes are very common. We are uncertain as to the status of the Hermit Thrush. The Ruby-crowned Kinglet was common on migration but I felt the Golden-crowned was very scarce. No Bohemian Waxwings were seen after April 25; Cedar Waxwings appeared on May 1 and have been relatively common. K. Denis reported a Loggerhead Shrike at Ignace on May 11. It had previously been reported in Sibley Park and at Dorion.

Vireos and Warblers — The Red-eyed Vireo is perhaps less abundant than it was a few years ago but is not uncommon. We saw two Philadelphia Vireos on May 21 and Dr. Axtell heard one outside Port Arthur on June 26. The warbler migration was an excellent one. Cape Mays were particularly abundant and were reported from widespread areas. Bay-breasted, Blackburnian, and Blackpoll Warblers were also common. The Palm was abundant. The Mourning seems more common than usual. Numbers of Parulas were reported in Sibley Park on May 23. They should breed there as the balsams killed by the spruce bud-worm are festooned with *Usnea.*

Bobolinks to Tanagers — Some 20 years ago, the Bobolink might be found in one area. This year we have found it in six different fields from southwest of Fort William to Dorion and other observers could add further stations. Kerkoerle saw one at Marathon on May 26. The Western Meadowlark, rare until 1934, continues to spread and is one of our most common summer residents. We have noted the second occurrence and first breeding record of the Eastern Meadowlark. Reference has also been made to the influx of Yellow-headed Blackbirds. No Baltimore Oriole has been reported this season. Rusty Blackbirds were uncommon this spring but the Brewer's continues to spread throughout the region. David Allin reported the only Scarlet Tanager on May 30 in Sibley Park where he is a Junior Park Naturalist for the summer.

Grosbeaks to Buntings — The Rose-breasted Grosbeak seems less common than usual. No Indigo Bunting has been reported. Four pairs of Evening Grosbeaks feeding on a gravel pile at Pigeon River on June 28 calls for investigation. Pine Siskins appeared on May 9. They were very common on May 23 and a few were still present. Song, Swamp, Savannah, Vesper, White-throated, Clay-colored and Chipping Sparrows are present in their usual numbers. We have twice seen and heard LeConte's Sparrows. Lincoln's Sparrow was rarely seen on migration and is scarce or absent at Dorion where the Speirs studied a colony in 1956 and 1957. Harris's Sparrows and White-crowned Sparrows were seen but rarely. The race *gambelii* was identified on May 19.

Lakehead naturalists mourn the death on May 22 of Lieutenant-Colonel L. S. Dear who had studied the bird life of the Canadian Lakehead since 1905. Dear contributed much to our knowledge of the wild life of the area. Many M.O.U. readers met him at Grand Marais or on one of their trips to the lakehead. We shall prepare an account of his life for a coming number of *The Flicker.* — *Regional Laboratory, Ontario Department of Health, Fort William.*

Yellow Rails in Becker and Mahnomen Counties, Minnesota

by

Ronald Huber

On June 20, 1959, three members of the Avifaunal Club were driving north on Highway 59 towards Mahnomen, Mahnomen County. We had sighted several Short-eared Owls along the way and were headed for Waubun, Mahnomen County to look for Greater Prairie Chickens. As we crossed the Becker-Mahnomen county line, we took the first road west. The road twisted back until it ran along the county line. We stopped to observe some Le Conte's Sparrows in a wet, long-grass marsh.

We were surprised to hear a loud snapping noise of two syllables, a pause, and three syllables: tic-tic — tic-tic-tic. Suspecting it to be a Yellow Rail, we plunged into the marsh. The ticking stopped. We stopped. Five minutes passed. The ticking again started, and another from across the road in the next county. Then, ultimately, we were greeted by a chorus of nine Yellow Rails. With determination, we trampled flat a large "V" in the long wet grass to try and flush the little yellow bird that Pough calls "a mystery." We had no results.

We then trampled down a long, rectangular swath, as Kilgore and Breckenridge did in Marshall County, 1928. Still no results. Finally, we resorted to what proved to be a successful method. Closing in on the nearest noise, we stomped down a large circle around it in the grass, hoping that the rail was approximately in the center. We then trotted around the circle at a rapid pace, closing in the circle toward the center. When the circle was about 12 feet in diameter, the rail flushed from one edge and we got a good look at him. The flight was typically slow and fluttery.

Around us, Le Conte's Sparrows and Short-billed Marsh Wrens watched with curiosity. T. S. Roberts' *Birds of Minnesota,* 1932 says, "Its dimunitive size, reluctance to fly, and general elusiveness amid the dense marsh vegetation where it dwells, make it very difficult to find. . . It is not strange that so little is known of the Yellow Rail and that so few have actually seen it in its haunts."

Minnesota breeding season records for the Yellow Rail are as follows:

Lake Wilson, Murray County, June 10, 1917 (only Minnesota nest)

Sherburne County, July, 1885

Becker County, June, 1885

Kittson County, June, 1929

Marshall County, June, 1928; June, 1929

Snails constitute most of the diet, and there were many clinging to the tall wire grass in this area.

So little is, in fact, known about this bird, that there is still some question as to which plumage is adult and which is juvenal.

Friedmann, *Birds North and Middle America,* part IX, 1941, says of the juvenal plumage, "Similar to adult . . . but with no white marks on top of head, hind neck or upper back . . . " then, in a footnote, Friedmann says, "Roberts, *Birds of Minnesota,* 1932, p550 considers what is here called the juvenal plumage to be the adult and vice versa. The

evidence available does not support this, but the matter should not be considered closed."

However, Dr. Warner has found evidence that does support Roberts' supposition. Dr. Warner has taken X-rays of the study skins in the museum collection and found that the specimens described as juvenal by Roberts have thin, juvenal bones, while the adult specimens have thicker bones. Bones examined were leg, wing, and skull. The leg bones provide the best testimony. A nesting discovery, with nestlings or juvenal birds would conclusively decide the argument. Downy young have apparently never been described.

We rounded out our trip by spotting Greater Prairie Chickens at Mahnomen, a Nelson's Sparrow at Waubun, Baird's Sparrow at Buffalo River State Park, Clay County and Barnesville, Wilkin County, and Henslow's Sparrow at Barnesville. The Chestnut-collared Longspurs which have nested near Barnesville in recent years, were not seen.

On July 24, Dr. Warner visited the Yellow Rail site but neither saw or heard the rails. The area was completely dry and there were no snails on the wire grass. — *Minneapolis, Minnesota*

Editor's Note: These same rails were recorded again on June 27 by your editor. Six were heard calling and the one seen was caught in the hand. (See Seasonal Report)

PLATE 1. RING-NECKED DUCK

PLATE II. LESSER SCAUP

PLATE III. AMERICAN WIDGEON

Photos by Dana Struthers

THE 1959 WATERFOWL SITUATION

With another waterfowl season just about to begin, your editorial staff thought it wise to bring to our readers' attention, if it hasn't already been done, the drastic situation that presently exists with the North American Waterfowl population. We are reprinting on the next page an article that appeared in the August 15th issue of the **Conservation News,** a bi-monthly publication of the National Wildlife Federation, 232 Carroll Street, Washington 12, D. C. The article speaks for itself.

Calling the Shot On the 1959 Duck Season

In spite of the confusion that accompanied drought conditions in the duck production area of North America during the spring and early summer of this year, a pretty vivid picture of what occurred has now emerged.

Producing wild ducks for a rapidly increasing army of hunters is important. The harvest of birds needed for perpetuating ducks in harvestable numbers, following an abnormally light hatch, could eliminate this sport for years to come.

"Bud" Morgan, National Wildlife Federation representative, spent most of June in the prairie provinces that produce the majority of ducks taken in the Mississippi and Central Flyways—Manitoba, Saskatchewan and Alberta. He traveled several thousand miles and talked to personnel of the Canadian Wildlife Service, the U. S. Fish and Wildlife Service working in Canada, Ducks Unlimited, and those responsible for game in each of the three provinces. He came away with some definite ideas. He has assured himself that the tremendous shift of breeders from the prairies on which the duck prefers to breed and rear its young was directly due to a lack of water in the shallow lakes and potholes of the region. — *Ernest Swift*

* * *

"Seventy per cent of water areas which had provided nesting habitat in '56 and '57 were dry during the spring migration. Those areas which held water were down. Wide mud flats separated water from herbaceous cover. These conditions were not ideal for either the divers or the dabblers.

"Ducks will not tolerate crowding during the time they are reproducing. With greatly reduced habitat, many moved north in quest of more favorable conditions. But the north is a big country. Comparatively little is known of the McKenzie River Valley and the Northwest Territory. The north had not been important in duck production in the past. In the minds of those responsible for duck management, the questions were: Will birds that have been forced into this area breed; and if they do, will they be sufficiently successful to compensate for the loss of production which is evident on the prairie?

"The June trip was too early for the answer to these two important questions. All that could be determined was that all reproduction, in north or south, would be late. Birds were still sitting around in pairs by mid-June. It was apparent that the hatch from early-established nests were poor. Broods were few and hard to find throughout June. There was a complete lack of habitat for over-water nesting, and unfavorable rearing habitat for ground nesters. There were millions of breeders that had been forced to move into unfamiliar areas in which they hoped to find adequate habitat. Nesting success would have to be determined later."

* * *

The Federation went all the way in its effort to determine what to expect from these abnormal conditions. On July 17, Morgan was sent north again. This trip was well-timed since birds hatched later than August 1 were not going to be of much value either to the hunter or as future breeders.

* * *

"Late rains in some areas have improved water conditions slightly. In most areas the parched earth drank up the water as rapidly as it fell and the effect of the rains on duck reproduction is practically nil. In many of the more important breeding areas water levels were lower in late July than in May.

"The presence of Canvasbacks, Redheads and Pintails was negligible on the prairies of the Provinces in June, and

they continued to be conspicuously absent in July.

"The hatch on all species is a least three weeks behind normal. Banding crews are having trouble finding birds to band and are able to take only a few ducklings large enough to hold bands at this time. One crew took 87 birds in nine days on an area where the same crew had averaged 90 a day in 1958.

"South of the forested area, water conditions continue to be bad. There are a few isolated areas, such as Minnedosa, Manitoba, the Caran pothole area south of Caran, Saskatchewan, and the irrigated area near Swift Current, that have held some migrating breeders because they offered some water in the spring. Even in these areas 70 per cent of the potholes that existed in '56-'57 are now dry. Of even greater significance, and a baffling problem for biologists, is the fact that only 25 per cent of the areas that have water are occupied by ducks. With competition for water as high as it is, one would expect every water area to be loaded. A limited production, primarily of Mallards, and some late-hatched Blue-winged Teal, will come from this area.

"There will also be some production above the grasslands in habitat which historically has not produced ducks in great numbers. It will consist largely of Mallards, Baldpates, Blue-wings, and a number of Pintails. But it will not begin to compensate for the loss of production caused by the drought on the prairies. If the forested area were to produce twice the number of ducks that it will in 1959, the duck population would still be down to the danger point.

"If present drought conditions should continue in 1960, there could be no duck harvest contemplated for that year. Even if water should await next spring's migration, unless shooting is curtailed in the fall of '59, the outlook is not good.

"Ducks have a strong tendency to breed in the area where they originate. Sowls, in his nesting study which began in '46 near Delta, Manitoba, proved this. Assuming that abnormally heavy snows refill the prairie potholes in the winter of '59-'60, the duck hunter will not profit unless there are ducks to use the water. Since the prairie pothole is the most important production area, it follows that the duck produced from this area is of the greatest value as the bird who will place these potholes back into rapid production when conditions again become right.

'Unless we give all-out protection to the comparatively few birds produced on the prairies in 1959 — these breeders who are to repopulate the prairies — it may be many years before duck hunting in the Mississippi and Central Flyways will be what we have known in the past.

"At this time, the Canadian Wildlife Service has set the pattern for giving these potential breeders the protection so vital to future production.

"On the basis of field reports, Canadian Wildlife Service suggested a six-duck bag with not more than one Canvasback or Redhead. It is believed that provincial administrators, who have had trouble with duck depredations during lush duck populations of the past, fear the criticism of farmers, if such a drastic cut were to be made this year. Cuts have been recommended, however. The three provinces of Alberta, Saskatchewan and Manitoba (the prairie provinces that produce the ducks for Central United States) are recommending opening later, taking five less ducks per day, allowing 15 less ducks in possession and cutting the number which may be exported by five ducks. Of the seven-bird bag not more than four may be Canvasbacks or Redheads, and not more than eight such birds may be possessed.

"We will soon know what those responsible for duck management in the States will do. If they provide for a late opening (which will tend to save some of the prairie-reared breeders of the future), a shorter season, and a smaller

bag, they will not be wearing red faces if and when it becomes necessary to request more duck protection on the part of Canadians.

"If we are willing to forego a heavy slaughter in 1959, duck-wise, we are still in good shape.

"It is proved by research that natural mortality accounts for approximately 50 per cent of the duck population's decrease annually. In other words, there is never a harvestable surplus of breeders. Harvest, in any year, must be based upon the number of birds produced in the year in which harvest takes place.

"It has been ascertained reproduction is low in '59. It follows that wise duck management calls for reduction in kill.

"We can well afford to copper our bets in 1959. We won't suffer too greatly if we cut bags and seasons this fall. With conditions, both in duck populations and water levels, what they are, I would recommend opening two weeks later, with three in the bag (no Canvasbacks or Redheads), and a 30-day season. I would further recommend some soul-searching on the part of the duck hunter and taxpayer — soul searching to determine why he continues to pay taxes to drain potholes to increase agricultural production. We don't need more land to produce more surpluses. Let's pay the farmer for doing something that is constructive and in the public interest. Pay him for terracing, contouring and land practices that will store water in the soil or for placing more land in the Conservation Reserve Program. Let's demand that draining the life blood from the land be stopped." — *H. R. Morgan*

The Minnesota Bird Banders

by

Carl M. Johnson and Forest V. Strnad

Last January we sent out letters to the people we knew about who held bird banding permits for the State of Minnesota, asking for a list of the birds they had banded during 1958. Little did we realize then what an interesting project this would be. The list which follows, shows that 169 species of birds, totaling 14,671 individuals were banded.

A mimeographed report went out to these people the latter part of February carrying some of this report. Since that report was made, more banders have reported and we have received more names of persons who are active banders because this column was started in the March issue of *The Flicker*.

We are happy to have the report from the Minnesota Department of Conservation and National Wildlife Refuges in our state. Dr. Arnold B. Erickson is head of the Game Research project of the Minnesota Department of Conservation. He has two men working under him who are in charge of banding of birds. Forrest B. Lee is the leader of the Waterfowl Research banding project and he has four permanent staff members working with him, Leon Johnson, Norman Ordal, Robert Benson and John Lindmeier. Much of the actual waterfowl banding program is carried out by temporary employees who do the actual labor of capturing and banding the young ducks. The Upland Game Research banding program is under the direction of Dr. Stanley Harris, who is stationed at Madelia.

National wildlife refuges located in our state include Upper Mississippi River Wildlife Refuge, with Dr. William Greene as manager. His office is located in Winona. He reports that no birds were banded in Minnesota during 1958,

but that they have been banding Wood Ducks this year. That report will come out next year. The Rice Lake National Wildlife Refuge at McGregor is under the management of Claude R. Alexander. The Mud Lake National Wildlife Refuge at Holt is managed by Herbert H. Dill. No waterfowl were banded there in 1958, but the refuge clerk, James M. Thompson, reports on his personal banding. The Tamarac National Wildlife Refuge at Rochert is managed by Robert W. Hunt. The 40 Canada Geese which he reports are captive and are classed as experimental. The birds will not be released as free flyers until 1961.

William J. Ellerbrock, Jr. is also with the Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife and has his office in St. Paul. He has been placed in charge of the program of banding nestling Mourning Doves over a five-year period which runs from 1956 until 1960. He has many persons working under him on a sub-permit. That is where I (Strnad) got my start in bird banding.

The University of Minnesota has three Master Permits held in the names of professors, and the students do most of the banding under their supervision. Dr. Dwain W. Warner is at the Museum of Natural History on the Minneapolis campus and Dr. James Beer and Dr. William H. Marshall are both in the Division of Entomology and Economic Zoology, University Farm, St. Paul. So far as I know, Dr. P. B. Hofslund of the University of Minnesota, Duluth branch, has his own permit and does his banding as a hobby rather than holding a Master Permit for his students.

We hope to present thumbnail sketches of other banders in a future issue of *The Flicker*.

Together, the professionals and the amateur banders have compiled a good report for 1958. It is not a matter for competition between the two groups, but rather both working together to form a complete picture of what is happening in the world of birds.

As we look at bird banding today, we can be sure that many more birds are being banded because of the use of mist nets. Where, as in the past, if a bander could get 500 birds in a year he was doing good, today, with hard work, a bander can get almost that many in one month during migration.

Some reflections on 1958 banding in Minnesota could point out the four species of hawks and the Golden Eagle that were banded. The Sharp-shinned Hawks were taken in nets. In future years, no doubt, someone will discover how to capture more hawks at Duluth and we may be able to have an interesting story on where they go. The Yellow-breasted Chat was the first one banded in Minnesota, and the Prothonotary Warbler was unusual and may have been the first one banded. The year 1958 was very definitely a Red-breasted Nuthatch year throughout the whole state. Bohemian Waxwings were not plentiful, but a good number of Evening Grosbeaks were banded.

All of the Blue-winged Warblers were banded in the Whitewater Refuge. It will be interesting to watch what develops in this section of the state over the coming years.

Pine Siskins were rare and it was a poor year for Warblers. House Wrens and Eastern Bluebirds showed up unusually well where Bluebird trails have been established. The first Cardinal banded in the Duluth area came during 1958 and was banded by Gary Kuyava.

Looking forward to the reports which will come in on 1959 banding activity, we would like to make several suggestions: (1) Send them in to Forest V. Strnad, Kasson by the end of January, 1960. (2) Please list them in A.O.U. numerical order. (3) We would like to hear from every bander irregardless of how many or how few birds you banded, or if you didn't band any birds at all.

(Continued on page 90)

A.O.U. Number—Species	Alexander, Claude R.	Cohen, Robert J.	Corbin, Kendall Jr.	Culbertson, Mrs. G. H.	Waterfowl Banding Unit, Dept. of Cons.	Ellerbrock, William J.	Findley, Scott	Goehring, Dr. Harry H.,	Grether, David	Gullion, Gordon
2—RED-NECKED GREBE					2					
4—EARED GREBE					1					
6—PIED-BILLED GREBE					27					
51a—HERRING GULL										
69—FORSTER'S TERN										
77—BLACK TERN			2		10					
131—HOODED MERGANSER					1					
132—MALLARD	114		4		2651					
133a—BLACK DUCK	10				69					
135—GADWALL					25					
137—AMERICAN WIDGEON	6				41					
139—GREEN-WINGED TEAL	306				14					
140—BLUE-WINGED TEAL	16				1504					
142—SHOVELER					23					
143—PINTAIL	4				130					
144—WOOD DUCK	22		1		389					
146—REDHEAD	1				110					
147—CANVASBACK					86					
149—LESSER SCAUP					7					
150—RINGED-NECK DUCK	1				449					
151a—COMMON GOLDENEYE					206					
167—RUDDY DUCK					11					
172—CANADA GOOSE										
191—LEAST BITTERN			1							
201—GREEN HERON			1							
212—VIRGINIA RAIL					3					
214—SORA			1							
221—AMERICAN COOT					285					
228—AMERICAN WOODCOCK										
230—COMMON SNIPE										
233—STILT SANDPIPER										
239—PECTORAL SANDPIPER										
242—LEAST SANDPIPER										
243a—DUNLIN										
246—SEMIPALMATED SANDPIPER										
255—LESSER YELLOWLEGS			1							
256—SOLITARY SANDPIPER			2							
261—UPLAND PLOVER					3					
263—SPOTTED SANDPIPER			2							
273—KILLDEER					1					
274—SEMIPALMATED PLOVER										
300a—RUFFED GROUSE										54
316—MOURNING DOVE			3					3		
331—MARSH HAWK									4	
332—SHARP-SHINNED HAWK		2					1			
337—RED-TAILED HAWK									1	
349—GOLDEN EAGLE									1	
360—SPARROW HAWK										
366—LONG-EARED OWL		1								
372—SAW-WHET OWL										
373m—SCREECH OWL										
375—GREAT HORNED OWL										
388—BLACK-BILLED CUCKOO			1							
390—BELTED KINGFISHER		1					1			
393—HAIRY WOODPECKER			1							
394—DOWNY WOODPECKER		4	10				2			
402—YELLOW-BELLIED SAPSUCKER										

Hanson, Harold R.	Hofslund, Dr. P. B.	Hunt, Robley W.	Jiracek, W. A.	Johnson, Carl M.	Kuyava, Gary C.	Lien, Boyd	Peterson, Mrs. Charles C.	Pratt, Walter E.	Selnes, Mrs. E. R.	Strnad, Forest V.	Thompson, James M.	Warner, Dwain W.	Eng, Robert	Upland Game Unit Dept. of Cons.	Kupa, John	Elliott, Lowry	Totals
																	2
									1								2
																	22
	200																200
				1													1
				9						1		8					30
																	1
				1						31							2001
																	79
																	25
																	47
																	320
				1													1821
																	23
																	134
												1					413
																	111
																	86
																	7
																	450
																	206
																	11
		40								1							41
																	1
				1													2
				1													4
				2						1							4
										1							286
												5			8		13
				5						4		1					10
				1													1
				1						2							3
				15						13							28
					14												14
				3													3
				4						1							6
				4													6
																	3
				5	2					1							10
				2						2		7					12
					2												2
													48				102
			3	2		2	3		2	50	5			285			563
				1	1					1							4
				2		1			1								5
																	1
												1					1
	1																1
						1			1	2							4
				1						1							2
				2	1												4
				6						5		10					24
				5	2	2			9	7							26
				14	9	9	5		35	28						9	125
				1			3			2							6

A.O.U. Number—Species	Alexander, Claude R.	Cohen, Robert J.	Corbin, Kendall Jr.	Culbertson, Mrs. G. H.	Waterfowl Banding Unit, Dept. of Cons.	Ellerbrock, William J.	Findley, Scott	Goehring, Dr. Harry H.,	Grether, David	Gullion, Gordon
406a—RED-HEADED WOODPECKER			1							
409a—RED-BELLIED WOODPECKER			2							
412a—YELLOW-SHAFTED FLICKER		6	1		2		3			
420—COMMON NIGHTHAWK										
428—RUBY-THROATED HUMMINGBIRD										
444—EASTERN KINGBIRD								2		
447—WESTERN KINGBIRD										
452a—GREAT CRESTED FLYCATCHER			2				1			
456—EASTERN PHOEBE			5				1	5		
461—EASTERN WOOD PEWEE			3							
463—YELLOW-BELLIED FLYCATCHER			3							
466a—TRAILL'S FLYCATCHER		1	10				1			
467—LEAST FLYCATCHER		2	13							
475—BLACK-BILLED MAGPIE	4									
477—BLUE JAY		1	8	6						
488—COMMON CROW		1								
493—STARLING			1					1		
494—BOBOLINK										
495b—BROWN-HEADED COWBIRD		20	4							
497—YELLOW-HEADED BLACKBIRD			3							
498—REDWINGED BLACKBIRD			29							
501—EASTERN MEADOWLARK										
501.1—WESTERN MEADOWLARK			1							
507—BALTIMORE ORIOLE			3							
509—RUSTY BLACKBIRD										
511b—COMMON GRACKLE		10	14				6	3		
514—EVENING GROSBEAK		4								
517—PURPLE FINCH		2	4							
522—WHITE-WINGED CROSSBILL										
528b—COMMON REDPOLL										
529—AMERICAN GOLDFINCH			40				3			
533—PINE SISKIN										
536—LAPLAND LONGSPUR		9								
540—VESPER SPARROW			3							
542f—SAVANNAH SPARROW		1								
553—HARRIS' SPARROW		10					1			
554—WHITE-CROWNED SPARROW		2								
554a—WHITE-CROWNED SPARROW (Gambelii)		7								
558—WHITE-THROATED SPARRW		240	11	11			35			
559—TREE SPARROW			14				1			
560—CHIPPING SPARROW		4	2				1			
561—CLAY-COLORED SPARROW		1	1							
563—FIELD SPARROW			45							
567—SLATE-COLORED JUNCO		35	71	7			1			8
567f—OREGON JUNCO			3							
581u—SONG SPARROW		9	25	2			19			
583—LINCOLN'S SPARROW							7			
584a—SWAMP SPARROW		1	19				20			
585—FOX SPARROW			1				3			2
587—RUFOUS-SIDED TOWHEE										
593—CARDINAL			15				2			
595—ROSE-BREASTED GROSBEAK			17							
598—INDIGO BUNTING			9				2			
608—SCARLET TANAGER			2							
611—PURPLE MARTIN							3			
612—CLIFF SWALLOW			17							
613—BARN SWALLOW										

Hanson, Harold R.	Hofslund, Dr. P. B.	Hunt, Robley W.	Jiracek, W. A.	Johnson, Carl M.	Kuyava, Gary C.	Lien, Boyd	Peterson, Mrs. Charles C.	Pratt, Walter E.	Selnes, Mrs. E. R.	Strnad, Forest V.	Thompson, James M.	Warner, Dwain W.	Eng, Robert	Upland Game Unit Dept. of Cons.	Kupa, John	Elliott, Lowry	Totals
				3			1			3							8
				3		2											7
				1	8	2	2			9				2			36
				1													1
				2	3				1								6
				1						1							4
									3								3
				9		1											13
				8	1					6							26
				1		1				1							6
				2	1					1							7
				5	1					1							19
	1			16	11	10	1										54
																	4
				11	2	5	7	2	9	9		1					61
						2											4
				98	86					21		1					208
				1													1
				12	30	1	2		1		29						99
				7						1	313						324
36				12	2	9	4	4	11	9	47						157
										4							4
																	1
3				10		5	2		2	2							27
					1												1
14			1	61	2	1	101	2	37	79	52			56			441
306				6	19												335
13				29	72	1	2	126		2							251
				1													1
					35					1							36
				248	5	8	1	32		27							364
						2		1									3
				1	6												16
				4	1												8
				2	6					1							19
3				2	7		17			4							46
3				6	3		4		4	1							23
					8	1											16
6				57	426	20	80		5	40							931
				118	9	3	8	3		20							176
				12	5	2	5		1	6		10					48
				2	17												21
				89		14		1		1							150
				203	314	46	53	3	57	210							1004
				1						1							3
1				89	81	13	3			18		9					269
				24	5	2	16			5							59
				78	7	6	1			9							141
				12	30					3							51
				1													1
				39	1	3			1	21							82
				39		2	8			7							73
				18		2	1			2							34
				3													5
				1						24							28
				8						83		16					124
				1		8	13	1		19							42

A.O.U. Number—Species	Alexander, Claude R.	Cohen, Robert J.	Corbin, Kendall Jr.	Culbertson, Mrs. G. H.	Waterfowl Banding Unit, Dept. of Cons.	Ellerbrock, William J.	Findley, Scott	Goehring, Dr. Harry H.,	Grether, David	Gullion, Gordon
614—TREE SWALLOW			3				3			
616—BANK SWALLOW			15							
617—ROUGH-WINGED SWALLOW			4							
618—BOHEMIAN WAXWING										
619—CEDAR WAXWING		2	15							
622e—LOGGERHEAD SHRIKE										
624—RED-EYED VIERO			23							
626—PHILADELPHIA VIREO										
627—WARBLING VIREO			1							
629—SOLITARY VIREO										
636—BLACK AND WHITE WARBLER		1	1							
637—PROTHONOTARY WARBLER										
641—BLUE-WINGED WARBLER			5				1			
642—GOLDEN-WINGED WARBLER			1							
645—NASHVILLE WARBLER		1								
646—ORANGE-CROWNED WARBLER			1							
647—TENNESSEE WARBLER			2							
650—CAPE MAY WARBLER										1
652—YELLOW WARBLER		3	5							
655—MYRTLE WARBLER										
657—MAGNOLIA WARBLER		2					1			
658—CERULEAN WARBLER										
659—CHESTNUT-SIDED WARBLER										
660—BAY-BREASTED WARBLER										
661—BLACKPOLL WARBLER										
662—BLACKBURIAN WARBLER										
672—PALM WARBLER		1					2			
674—OVENBIRD		1								
675a—NORTHERN WATERTHRUSH		1	2							
676—LOUISIANA WATERTHRUSH										
679—MOURNING WARBLER										
680—MACGILLIVRAY'S WARBLER										
681d—YELLOWTHROAT		2	18				2			
683—YELLOW-BREASTED CHAT										
685—WILSON'S WARBLER		1								
686—CANADA WARBLER		1								
687—AMERICAN REDSTART		3	7				3			
704—CATBIRD		2	89				14			
705—BROWN THRASHER		1	3	3			1			
721—HOUSE WREN			6							
724—SHORT-BILLED MARSH WREN										
725—LONG-BILLED MARSH WREN			2							
726—BROWN CREEPER		1								
727—WHITE-BREASTED NUTHATCH		1	3							
728—RED-BREASTED NUTHATCH		1	4							
731—TUFTED TITMOUSE										
735—BLACK-CAPPED CHICKADEE		8	21	1				1		
748—GOLDEN-CROWNED KINGLET										
749—RUBY-CROWNED KINGLET		2	3							
756—VEERY		1	2							
757—GRAY-CHEEKED THRUSH			1							
758a—SWAINSON'S THRUSH		4	1							
759b—HERMIT THRUSH			1							
761—ROBIN		14	24				2	9		1
766—EASTERN BLUEBIRD			5							
TOTAL SPECIES	10	46	77	6	25		30	7	4	5
TOTAL NUMBER OF BIRDS	484	428	700	30	6048		143	24	7	66

Hanson, Harold R.	Hofslund, Dr. P. B.	Hunt, Robley W.	Jiracek, W. A.	Johnson, Carl M.	Kuyava, Gary C.	Lien, Boyd	Peterson, Mrs. Charles C.	Pratt, Walter E.	Selnes, Mrs. E. R.	Strnad, Forest V.	Thompson, James M.	Warner, Dwain W.	Eng, Robert	Upland Game Unit Dept. of Cons.	Kupa, John	Elliott, Lowry	Totals
				3	6	1			21	12							49
				7		9				10		27					66
				2		1				1							8
10																	10
				21	5	3				2							48
				1						3							4
				8	5	1	1			1							39
				1													1
				12	1	5	2										21
					1												1
				1	3	1	1										6
				1													1
				15		2				1							24
																	1
				3	8	1	1										14
				1	1		8										11
				3	12	1	6										24
				1	2												4
				11	4	10	4		1	3							41
				6		3	24										33
				1	4	1			2								11
				1													1
				2	1												3
					3												3
				1			3										4
					1												1
				1	3	1				1		1					10
				2	6		2										11
				4	1					2							10
										2							2
				1	4		6										11
							1										1
				6	9	4	10			5							56
				1													1
				3	2		7										13
				1			1			1							4
				22	7	3	3			1							49
18				153	35	17	16			14							358
				18	18		11			1							56
			6	2	4		6		28	39		1					92
				1													1
				1						1							4
				2	3				3	3							12
			1	17	1	7	1		13	18						2	64
				5	2		1			3							16
				8		3				3							14
			1	42	18	32	14	3	17	21		1				13	193
							1			1							2
				3	8	2	12			1							31
				3	24	1											31
				6	8		6		1								22
				3	30		29			1							68
				1	1		10			8							21
17			6	24	65	2	63		2	65		1		27			322
				2					38	52							97
12	3	1	6	120	74	55	53	11	28	84	5	17	1	4	1	3	169
428	202	40	18	1882	1542	298	593	178	307	1082	446	102	48	370	8	24	14671

Notes of Interest

SUMMER SIGHT RECORD OF A HAWK-OWL IN BELTRAMI COUNTY, MINNESOTA — While I was making observations in a mature Black Spruce-Fir forest about 18 miles north of Four Towns, Beltrami County, Minnesota, on July 14, 1959, I was able to observe a Howk-Owl at close range. A bird flushed about 25 yards to my right which I took to be a Sharp-shinned Hawk by its size as it flew toward me. When it alighted in a low limb of a spruce tree about 20 feet from me, I was able to clearly see the owl-like face pattern. I watched it in the field of six-power glasses for about ten seconds until it was flushed by another person. As it flew past me, about 15 feet away, I noticed the slow, easy wing beat, conspicuous patches of white on both sides of the tail near the base, a dark gray back, and a long hawk-like tail. I followed the bird for about 15 yards, when it landed on the ground in a small opening. I was able to watch the bird plainly for about 30 seconds from a distance of about 25 feet until it was flushed. The bird flew off and I was unable to follow. — *William Schmid, Zoology Department, University of Minnesota, Minneapolis, Minnesota.*

* * *

MAY BIRDING IN TRAVERSE COUNTY, MINNESOTA — On May 23, Brother Theodore Ron and Harding Huber, Ray Glassel and myself spent the better part of a day observing birds along the east shore of Lake Traverse, Traverse County, Minnesota. At the south end of the lake we noted eight individual Western Grebes plus three White Pelicans. The Pelicans were very common as we continued up the lake. They were in view on different parts of the lake constantly. Western and Eastern Kingbirds were abundant along the roadside. The Western Kingbird outnumbered the Eastern in this particular locality. At the north end of the lake, between Lake Traverse and Mud Lake, we found an extensive area of exposed mud flats. As a result we observed a number of shorebirds. The most important were three American Avocets feeding close to the roadside. Possibly of more importance was a single Western Sandpiper that we observed for several minutes at approximately 20 feet. This is an interesting record because at present there is no specimen of this species in the University of Minnesota Museum collection. When we left Lake Traverse and headed east on Highway 27 we noted a pair of Burrowing Owls 16 miles east of Wheaton, Traverse County. These birds were at their nesting burrow which was located in weedy pasture between two farms. No eggs or young were found in the burrow, but we picked up several handfuls of pellets. These pellets were turned over to the Museum of Natural History for analysis. A report of this analyzation will be found in this issue of *The Flicker*. — *Robert B. Janssen, Minneapolis, Minnesota.*

* * *

BEWICK'S WREN NESTING IN ANOKA COUNTY — (*Editor's Note*: The following information was received from daily records kept on 3x5 cards by Mr. Wagner.)

April 15—Wife noticed pair of wrens working behind shed (old delapidated building, open in the back and filled with old boards and other refuse).

April 19—Wrens identified as Bewick's by Bob Hadson and Dave Dilcher (University of Minnesota students). Observed pair working on nest in 4" pipe which was resting at an incline on a heap of old bricks, behind shed.

April 27—Nest in pipe has been completed for some time now. Wrens not noticed in pipe but still around area.

May 10—Wren seen carrying insect near pipe this afternoon, and on checking,

discovered female on nest. This is the first time I was certain that the nest would be used. Had observed no eggs previously, but may not have been able to see them in nest pocket.

May 11—Checked nest at 7 a.m. and 7 p.m., female present both times. Female observed off nest for 10 or 15 minutes shortly after 8 p.m.

May 12—Checked nest at 7:15 p.m., female on, male heard singing nearby from time to time. Female left nest again for a few minutes around 8 p.m.

May 14—Checked nest at 7:45 p.m., female on.

May 29—Have checked nest almost every evening including today at 7:45 p.m., female still sitting.

May 31—Young heard in nest for first time this afternoon (wasn't able to check yesterday). There seems to be seven young. (If incubation started on May 10 and hatching occurred yesterday or today, that would amount to 20-21 days.)

June 9—10:30 a.m., both adults noticed in clump of boxelders — appear to be trying to coax young from nest in pipe. Checked again at 11:00 and all young were out of nest — was able to locate about four of them on branches in various places 20-24 feet from nest. Parent wrens were trying to chase a Brown Thrasher away from area, 30 feet from the nest; and when I looked, a young, dazed and bleeding Bewick's Wren was found on the ground. This bird may have gotten too close to a Thrasher nest nearby. The young Bewick's appeared to be nearly dead, but I put it back into the pipe and one-half hour later it had recuperated enough to fly out into a Gooseberry Bush a few feet away and the parents began feeding it shortly afterward.

June 12—Have either seen or heard Bewick's Wrens within 200 feet of nest every day since they left the nest. At 3:00 p.m. today, I noted an adult Bewick's building a new nest in the corner of an old garage, just inside the door. The new site was about 30 feet from the old. 6:00 p.m. parent Bewick's and young came from neighboring yard to vicinity of new nest. Adult birds flit in and out of nest a couple of times. 8:45 p.m., with mirror and flashlight observed new nest and discovered at least three young Bewick's in it!

June 13—No young in nest this morning. Temperature last night was down to mid-50's. Heard Bewick's singing toward back of yard about 4:30 p.m.

June 18—Observed Bewick's nearby every day since they left the nest. Adult popped in and out of "new" nest about 9:00 p.m. today.

June 20—Observed adult Bewick's in new nest momentarily again today, but they apparently are not going to use it.

June 30—Raining when I got home today (4 p.m.), but there seemed to be considerable Bewick's activity. On observation, the adults and several young were in the neighboring yard and it appears that this may be a new brood.

July 13—Today is the first day I have not seen or heard a Bewick's around since April 19.

July 18—Still no Bewick's around, either they are quiet or have left area. — *Jerome Wagner, Anoka, Minnesota.*

* * *

TEXAS RECOVERY OF MINNESOTA SLATE-COLORED JUNCO — Slate-colored Junco, 27-68268, banded at Duluth, Minnesota on September 27, 1958, was shot by Clement C. McDaniel of Austin, Texas, six miles south of Yellowpine, Texas on December 26, 1958. Yellowpine, Texas is approximately 1,140 miles from Duluth. As is shown by the coordinates of longitude (0920 for Duluth and 0934 for Yellowpine), this bird traveled almost due south from Duluth. — *G. C. Kuyava, Duluth, Minnesota.*

SHORT-EARED OWL PREYING ON POCKET GOPHER — Field observations on hunting by predatory birds are usually fragmentary. A plumetting hawk may be seen to seize and carry off prey but rarely is one successful in identifying the prey taken or finding out the details of the conditions under which the capture was made. I recently had the opportunity to piece together the complete story of a Short-eared Owl hunting episode. I had just turned a sharp corner on a gravel road in southern Mahnomen County when a Short-eared Owl flushed from the edge of the tall grass on the road shoulder. The bird flew up so close that the car nearly struck it. After a few yards, the owl turned aside and alighted in the tall grass of a hay meadow 100 feet from the road. It carried prey in its talons but I could not recognize it. Thinking that, with binoculars ready, I might be able to identify the prey as the bird flushed, I walked out into the field and the owl flew up, but without the prey. A moment's search located the hind quarters of a ¾ grown pocket gopher (*Geomy bursarius*). Returning to the spot on the road shoulder where the owl had flushed, I found most of the fore quarters of the gopher. It lay close beside an open burrow in the gravel shoulder of the road. I noticed that the owl had been sitting and dismembering its prey in a little pocket in the tall grass by the road and consequently had not seen my car until it was almost upon it. On examining the little opening in the grass, I discovered many cut off stubs of grass. The opening had been made by the gopher as it ate away the grass stems closest to the open hole.

Pocket gophers rarely emerge from their underground burrows at all except to shove dirt from their burrows. The taste of the fresh grass had evidently lured this unwary young pocket gopher to leave the protection of its burrow only a foot or so but nevertheless this had been far enough to permit the hunting owl to make an agile aerial maneuver and pounce on the rodent before it could reach its burrow. I had once before seen a young pocket gopher foraging a little distance from its hole. Burrowing animals generally have poor eyesight and must be extremely wary and secretive if they are to survive. This apparently is an example of how natural selection operates to eliminate the unwary and venturesome young of this little burrower. — *W. J. Breckenridge, Director, Museum of Natural History, University of Minnesota, Minneapolis 14, Minnesota.*

* * *

SWAINSON'S HAWK IN DODGE COUNTY, MINNESOTA — On August 15, when I was in Kasson, Dodge County, I had the opportunity to spend several hours with Bill Longley of the Minnesota Conservation Department. Our main topic of conversation revolved around the Swainson's Hawks that he had recorded in Dodge County over the last ten years. He stated at least a pair or two had been seen every summer during this period in the woodlots located across the central part of the county.

To further verify that these hawks probably nest in Dodge County, we observed an adult Swainson's Hawk sitting on a dead tree along a county road between Oslo and Kasson, Dodge County. On August 26, 1959 another Swainson's Hawk was seen by Bill Longley circling over the city of Kasson.

Roberts, in "The Birds of Minnesota," states that the Swainson's Hawk is rare even during migration in the eastern part of the state, and is found breeding only in the far western portion of the state.

A concerted effort will be made during 1960 to find the nest of this species in Dodge County. If the bird is nesting in this part of the state, it will certainly indicate a definite breeding range extension of this species in Minnesota. — *Robert B. Janssen, Minneapolis, Minnesota.*

SPRING DIET OF A MARSH HAWK — While on a banding expedition on Duluth's Park Point at Harbor Island I noticed an adult male Marsh Hawk stoop, attack and kill a Greater Scaup Duck. The date of this observation was May 15, 1959. This same hawk was observed on each succeeding day until May 30. I am positive that all observations were of the same hawk because three feathers were missing from the left wing. The three feathers were possibly the third, fourth, and fifth primaries. After I observed the bird kill the duck on May 15, I flushed the bird as it was beginning to eat its prey. When I examined the dead duck, I found that most of the breast feathers had already been removed. The head had been torn away from the body and the neck was completely eaten. A few fragments of flesh and skin were torn away from the breast. After about five minutes of examining the prey, I left the area. On May 16, I returned and found the duck completely eaten except for the feathers, a few of the larger bones, the bony end of the wings, and the head.

The following is a list of all the prey which I saw the Marsh Hawk kill: May 15, 1 Greater Scaup, 1 Mallard; May 16, 2 Mallard Drakes; May 17, 1 Blue-winged Teal; May 18, 1 Lesser Scaup; May 19, 2 Blue-winged Teal; May 20, 1 Hooded Merganser; May 21, 1 hen Mallard, 1 Blue-winged Teal; May 22, no kill witnessed; May 23, 1 Domestic Duck (white); May 24, 1 Duck (the hawk flew away with it preventing identification); May 25, 2 male Blue-winged Teal; May 26, 1 male Mallard; May 27, 1 Lesser Scaup; May 28, 1 hen Mallard; May 29, 2 male Blue-winged Teal; May 30, 1 Lesser Scaup. It is interesting to note that the entire observed kill consisted of waterfowl, all of which were killed on shore. Other animals may have been taken but if they were, I believe that I would have observed at least one animal other than a duck being killed. — *G. C. Kuyava, Duluth, Minnesota.*

* * *

AMERICAN AVOCETS NESTING IN MINNESOTA — Although Avocets are observed nearly every spring during migration at the Orwell Refuge and Public Hunting Grounds, Ottertail County, Minnesota, it is only this year that any have nested and produced young. During spring migration 13 adults were seen. All but three moved on after spending a few days.

On June 19, two of these adults continually dived on us while we were building a dike for a subimpoundment on the area. Both birds were very uneasy and would fly quite close giving their characteristic cry. They indicated by these actions that either a nest or young were near.

On June 22, three adults and three downy young were observed. The young Avocets were seen along the margin of an open water pool and when it was decided by Ernest Dow to get a closer look, they merely went straight across the water, swimming with ease.

The young do not have the turned up bill as do the adults, but the markings are somewhat alike. A reddish tan was noticed on the neck but only on a small area located on the lower part. Instead of white, as on the old birds, gray is predominate. However, the black markings can be seen coming in, but not distinctly.

On June 30, the young birds were looked for but only one could be found. It was overtaken so that close observation could be made. When it found we were very close, it moved into an old muskrat run and lay perfectly still with its head stretched out along the water. Besides the color and marking, it was noticed that there appeared to be a partial web between its toes. We did not pick the bird up but could see the feet pretty well through the water. — *Morris L. Peterson, Rochert, Minnesota.*

GRACE LAKE HERON COLONY — On June 29, 1959, I found what could possibly be a new Great Blue Heron colony in Minnesota. The colony of 27 nests is located on Grace Lake just inside of the wilderness boundary of the Superior National Forest. The nests are on an island in the northeast corner of the lake. The nests are typical heron nests placed between 25-40 feet above the ground in the Maple and Basswood trees which cover the island. At the time of my arrival, the young birds were about ready to leave the nest. To reach Grace Lake, one must put his canoe into the water at the end of the Sawbill Trail at Sawbill Lake, paddle over to the Alton Lake Portage which is about 10 rods long. Once in Alton Lake, paddle to the Beth Lake Portage which is 144 rods long. Once in Beth Lake, the ornithologist has two portages, of which he can take either, to get to Grace Lake. One is 287 rods long and skirts a string of small potholes. If he takes this one he will arrive at Grace Lake tired and hot, and about two miles from the heron colony! The other portage is actually two portages, the first of which is 76 rods long and ends at small Ella Lake. A short but welcome ¼ mile paddle will take him to the Grace Lake Portage which is 187 rods long. Once at Grace Lake he has only ⅓ of a mile to paddle to reach the colony. The technical location of Grace Lake is N½, T62N, R5W. — *G. C. Kuyava, Duluth, Minnesota.*

* * *

PREDATION BY GRAY JAYS ON THE YOUNG OF THE HOARY BAT — Late on the morning of June 30, 1959, two Gray Jays (*Perisoreus canadensis*) were observed in the upper branches of a dead Tamarack tree (*Larix laricina*) tugging at a dark brown object that appeared entangled in the pendant fruticose lichens growing on the branches. For about ten minutes, the object showed no movements, but as the birds tugged persistently at it, the brown form began to move in a slow, undulating manner. Gradually, it slipped lower in the lichen growth and revealed the form of a large tree bat.

As the bat slipped downwards, the birds began to cry loudly and to make stronger efforts to draw the bat upwards toward the branch on which they were perched. Repeated tugs at the bat's wing, which was caught in the lichens, succeeded in keeping the bat close to the birds. The other wing dangled freely and slowly moved upwards and downwards. The bat was apparently helplessly entangled in the lichens. The tree in which it was suspended, was 50 feet in height and the branch from which the bat was suspended was 42 feet from the ground.

After the bat was drawn up toward the branch and apparently secured quite well in the lichen thalli, the more aggressive of the birds made several thrusts with its bill at the abdomen of the bat and was observed to remove a large pink object from the bat. This object was immediately eaten. Several more thrusts by the bird were less violent, and after a few minutes the birds departed from the tree top.

Later, the bat was removed from the tree and identified as a Hoary Bat (*Lasiurus cinereus*) female which had young nursing. The bat was recovered alive, and one young male was found nursing on it. All four mammae of the bat were lactating, and the reproductive organs indicated that the bat had given birth to at least two young with the possibility of a third. The object which the Canada Jay had eaten was obviously one of the young of the bat. The wing span of the adult female bat was 15 inches.

These observations were made at Twin Lakes Bog southeast of Mary Lake, Itasca State Park, Clearwater County, Minnesota. The two specimens of *Lasiurus cinerus* were preserved and deposited in the Minnesota Museum of Natural History in Minneapolis. — *Lazurus W. Macior, O.F.M., St. Francis College, Burlington, Wisconsin.*

NESTING OF THE AMERICAN AVOCET IN MINNESOTA — Ernest H. Strubbe of Alberta, Stevens County wrote me regarding his observations of the nesting of American Avocets in Stevens County. His letter follows in part, "I first saw the male bird on a mud flat along a slough and near a road on May 30. On May 31, I returned to the site with three witnesses and my telephoto camera. During one hour's observation we noticed several exchanges of the parents on the nest which were located in a neighboring cow pasture and contained four eggs. None of us visited the nest after that for fear of giving away the location to some of the Ring-billed and Franklin's Gulls, several hundred of which swarmed about the vicinity. Since then, I have revisited this slough several times, obtaining some fair pictures of the birds. During this time the water level kept getting lower until there was hardly any water left near where the little Avocets were due to hatch. The main part of this slough is about one-half mile away from the nest and I am glad to report that four little Avocets just safely made the journey today, June 25."

In a subsequent letter dated July 13, Mr. Strubbe wrote the following, "Since writing you the last report I revisited the Avocets about ten days ago and they still had all four young. Yesterday, I searched for them again but was unable to locate any birds, old or young. As this slough area covers about 211 acres and there are numerous points covered by reeds and cattails jutting out into the remaining water, I still have hopes that the Avocets are there somewhere and that I'll see all four young birds again before long. The shore line was full of raccoon, fox, dog, mink and man tracks, and if they do raise all four of those little "fluff balls," I'll take my hat off to one pair of adult Avocets." This is a very interesting and important report and as far as I know, is one of the first nesting records of the American Avocet in Minnesota in the twentieth century. — *Mary Lupient, Minneapolis, Minnesota.*

* * *

HAWK NOTES — On May 29, 1957, Forest Strnad and I watched a Marsh Hawk as it made many unsuccessful attacks upon a male Ring-necked Pheasant. The pheasant was feeding in a plowed field just a few feet from a grassy slough. Between attacks, the hawk either circled over the field and appeared to be hunting or he alighted in the field and kept his eye on the pheasant. When attacking, which he did almost leisurely, he approached from the rear of the pheasant which assumed a fighting crouch, feathers fluffed out, head pulled back, and beak pointed at the attacker. Usually he managed to turn his body toward the hawk in plenty of time, but a few times he had to bear the attack while looking over his shoulder. The hawk always swerved away when within two or three feet of the target. An approaching automobile eventually put an end to the display.

On August 13, 1959, a Sparrow Hawk flew from a telephone wire as our car approached, and he dove at the head of a male Ring-necked Pheasant which was running across the road. It was a very near miss, and I would judge it was of playful intent. The little hawk dashed on. Later on, another Sparrow Hawk, that flushed ahead of our car, came close to catching a Song Sparrow which escaped only by diving into thick vegetation. As the hawk flashed on over the field it was in turn attacked by two Eastern Kingbirds. This attack continued for about a quarter of a mile as the hawk pursued a tortuous course to escape the tormentors. Several times I have seen Sparrow Hawks with meadow mice, many times with grasshoppers, once with a young striped ground squirrel, but I have never before seen them attacking or carrying birds, although they are known to do so. — *William H. Longley, Kasson, Minnesota.*

THE MAGPIE AND MOCKINGBIRD IN ANOKA COUNTY, MINNESOTA — Hofslund (*The Flicker*, 30:159) and Erickson (*The Flicker*, 29:95-99) recently summarized the localities from which Black-billed Magpies had been observed. On November 21, 1958, I observed a single Black-billed Magpie in the central part of the Carlos Avery Refuge in northern Anoka County. This is apparently the first recorded observation for Anoka County.

A Mockingbird was seen on December 19, 1958 near the nursery in the Carlos Avery Refuge. The rarity with which this bird is observed in Minnesota makes this an interesting record. — *James R. Beer, St. Paul, Minnesota.*

* * *

HENSLOW'S SPARROW EXTENDS RANGE IN MINNESOTA — Roberts, in "The Birds of Minnesota" states that the normal summer range of the Henslow's Sparrow extends northward across the southern part of the state to Grant and Isanti Counties. While in Mahnomen County on June 27, 1959, on the State of Minnesota Conservation Department Wildlife Study area four miles west of Waubun, at least one Henslow's Sparrow was observed. The bird was singing its peculiar "song" and several others were heard in the immediate vicinity. The habitat in which the birds were located was a low grassy area surrounding a cattail marsh. Due to the difficulty in finding a nest of this species and the short length of time we were in the area, no attempt was made to locate the nesting site. As of the above date, no nest had been found by any of the researchers conducting studies on the area. It is probably a valid assumption to presume that the birds were breeding in the area.

The above type of habitat is that which is mentioned as being typical breeding habitat for this species. On July 20, 1958 Brother Theodore and I located a breeding group of these birds near Winona, Winona County. The area was located along Highway 14 on the bluffs overlooking the Mississippi River. The birds were found singing in a dry weedy field adjacent to a recently cut alfalfa field. As mentioned above, the area was located on the bluffs overlooking the river and did not contain any marshy or meadow areas. As this species is one of the little known members of the so-called group of marsh dwelling sparrows, it is interesting to note their presence in this type of habitat. — *Robert B. Janssen, Minneapolis, Minnesota.*

* * *

MacGILLIVRAY'S WARBLER BANDED AT DULUTH — Early in the morning of May 25, 1959, I was checking my mist nets which were set at my banding station. In one net, I found a Canada Warbler, two Mourning Warblers, and another bird which I thought was also a Mourning Warbler. At the time I paid little attention to it. I had five other nets to check! When I finally took this questionable Mourning Warbler out of the gathering cage I saw a white bar under and over each eye. Not recognizing these marks, I began to check through the references which I keep near my banding table. When I found nothing which looked like the bird I held in my hand, I knew I really had something. So I tried to key it out in T. S. Robert's *Manual of the Birds of Minnesota*. The key took me to the Mourning and the Connecticut Warbler. This bird was neither, as the Mourning Warbler has no eye ring and the Connecticut Warbler has a complete eye ring. When I consulted the book, *Birds of America*, edited by T. Gilbert Pearson. I found, at last, what I was looking for. The description of the adult female MacGillivray's Warbler fit the bird which I held in my hand exactly. This bird looked very much like an adult female Mourning Warbler except for the white bars over and under the eyes. In a conversation with Dr. W. J. Breckenridge at Itasca State Park a few days after I had banded the bird, he thought that the bird I had banded might very well be *Oporornis tolmiei*. Thus, MacGillivray's Warbler, 27-68812, is the third record for the state of Minnesota. — *G. C. Kuyava, Duluth, Minnesota.*

NOTE ON FOOD HABITS OF THE BURROWING OWL IN MINNESOTA — This report includes data obtained from pellets collected in the vicinity of the nesting burrows of two pairs of Burrowing Owls in western Minnesota. All of the material was collected during the past summer (1959). Robert Janssen collected 24 pellets around a burrow near Wheaton, Traverse County, on May 23. Dr. Breckenridge and John Tester found 21 pellets near a burrow in Mahnomen County. I picked up eight pellets and a handful of animal remains around this burrow on July 11. All of the pellets contained animal remains, e.g. mouse skulls and beetle elytra, which give some indication of what these birds eat.

There were two adult birds in the vicinity of the nesting burrow in Traverse County when Robert Janssen visited the area. The material that he collected was composed almost entirely of the remains of small mammals. The 24 pellets contained nine Deer Mouse (*Peromyscus*) skulls, seven Meadow Vole (*Microtus pennsylvanicus*) skulls and the eyltron of a beetle.

About three-fourths of the 21 pellets collected in Mahnomen County by Dr. Breckenridge and John Tester were formed of fur and bones of small mammals, the rest being mostly insect remains. This material yielded the skull of one Masked Shrew (*Sorex cinereus*), the remains of a Leopard Frog (*Rana pipiens*), three Deer Mouse skulls, seven Meadow Vole skulls, 19 elytra of Carrion Beetles (*Silphidae*), six elytra of Ground Beetles (*Carabidae*) and 13 elytra of four other different species of beetles which were not identified. The material that I gathered at this burrow contained five elytra of Carrion Beetles, two legs of Grasshoppers (*Locustidae*), one elytron of an unidentified beetle, the skull of a Deer Mouse, the skull of a Masked Shrew, four Meadow Vole skulls and one (one inch by two inches) piece of fur of a Spotted Skunk (*Spilogale interrupta*).

From these data it appears that Burrowing Owls, like most hawks and owls, are beneficial to man. Small mammals and insects seem to be the most important items on the menu of this bird. However, this diet probably changes with seasonal variations in the abundance of prey. — *William Schmid, Zoology Department, University of Minnesota, Minneapolis, Minnesota.*

* * *

POSSIBLE SIGHT RECORD OF THE CATTLE EGRET IN MINNESOTA — On June 29, 1959, about 10:00 a.m., while driving south on Highway 29, approximately three to five miles north of Glenwood, Pope County, Minnesota, I saw a bird which appeared to be a Snowy Egret. By the time my husband could bring the car and our small travel trailer to a halt, we were perhaps a quarter of a mile beyond the tiny pond on the west side of the Road. I hurried back, stopping for a look through my binoculars as soon as I could spot the bird again. After making my way forward, gradually, I was finally close enough to make the following observations: The bird was standing on a pile of dried reeds, it was all white with a pinkish rusty tinge down the back of the head and down the back, the bill, legs and feet were yellow. This latter characteristic at once eliminated the Snowy Egret as the possible identification of this bird. The head and bill were held in a horizontal position which is typical of herons and the bird had the "chunky" appearance of herons. On the pond were several Franklin's Gulls which gave me the opportunity of comparing the size of the two birds. The "egret" was about half again as large as the Franklin's Gull. When I moved closer, the bird flew. As it circled overhead, I noticed its neck was folded back during flight and its legs were extended to the rear. Its wing beats were of about medium speed.

I studied the bird again for awhile after it settled on the same pile of reeds, but still I could not come to any conclusion as to the identity of the bird. I was wonder-

ing if it could be an albino of some species. Even after several days of puzzling over my observations and studying bird books, I still could not identify the bird as to species.

I next wrote to Dr. Breckenridge for more information. In his reply, Dr. Breckenridge stated that what I had seen was undoubtedly a Cattle Egret. This, to Dr. Breckenridge's knowledge, is the first record for the State of Minnesota. — *Mrs. Darrell M. Hanna, Sioux City, Iowa.*

* * *

MARSH HAWK - RING-NECKED PHEASANT ENCOUNTER — On June 29, 1959 I observed a Marsh Hawk (*Circus cyaneus*) make numerous passes at a Ring-necked Pheasant hen (*Phasianus colchicus*). The incident occurred at 10:00 a.m. on a gravel road five miles southwest of Waubun, Mahnomen County, Minnesota. The pheasant stood at the edge of the road partly sheltered by vegetation while the hawk circled about 20 feet above. When the hawk swooped the pheasant ran toward the center of the road and displayed by holding her tail erect with feathers spread and by partially spreading her wings (comparable to the appearance of a male Sharp-tailed Grouse, *Pediocetes phasianellus*, in dancing posture). When the hawk had passed, the pheasant returned to the roadside and remained there until the next pass by the hawk. It appeared to me that the pheasant would have had ample time to run into dense cover or to fly when the hawk was circling. The hawk continued making passes for about two minutes. It was then "chased" by a Red-winged Blackbird (*Agelaius phoenimeus*) and flew away from the area. The pheasant disappeared into the vegetation bordering the road. — *John R. Tester, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*

The Flicker

VOLUME 31 DECEMBER 1959 NUMBER 4

PUBLISHED QUARTERLY BY
THE MINNESOTA ORNITHOLOGISTS' UNION
PERMANENT ADDRESS
MUSEUM OF NATURAL HISTORY
UNIVERSITY OF MINNESOTA
MINNEAPOLIS, 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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THE COVER

Sketch of the GROVE-BILLED ANI done by W. J. Breckenridge from the specimen now in the collection at the Minnesota Museum of Natural History. The specimen was taken near Ortonville, Minnesota on September 17, 1959. (See Notes of Interest)

THE PRESIDENT'S PAGE

The first hundred pages of Volume 1 of *Birds of Minnesota,* by Thomas S. Roberts, discusses Trumpeter Swans, Passenger Pigeons and other birds that were once common, native birds of Minnesota. As one reads, he might get the feeling that the real opportunities for an ornithologist in our state are gone. It is true that there are very few virgin forests or prairies left. However, this does not mean that there are no longer possible discoveries in the field of bird-watching today, just as there were then. For instance, just since the last issue of *The Flicker,* a Grove-billed Ani was seen in western Minnesota (see cover). This fall, Ross Olson had an immature Gyrfalcon go through his nets while hawk-trapping. At Encampment Forest, Mrs. Penner is reported to have seen what must have been a Wheatear. All these would be considered rather unusual birds for Minnesota. However, in reality many birds not indigenous to the State of Minnesota must pass through, unnoticed in their wanderings. Several years ago some eastern ornithologists moved to Denver. There they discovered several species of warblers that were not supposed to be found west of the Great Lakes. They not only saw them once, but many times, and when members of the Denver Museum went out with them, they also observed and collected them. Now these warblers are considered common species during migration in the Denver area. The fact is these birds were probably migrating through this area before these bird-watchers moved out there, but they had never been observed or identified.

In Minnesota, most bird-watchers live in the Duluth or Twin City area. Yet there are many parts of the state where unusual birds could be living without their being recognized. And there has never really been a concerted study of all the birds that go through the Duluth area. Because of Lake Superior, not only hawks, but shore birds, warblers and many other species are funneled into an area a few miles wide that would normally include four or five hundred miles, if the lake were not there. Because of such a vantage point, the ornithologist has an opportunity to observe birds unequaled anywhere else in the state.

Therefore, the above-cited instances would seem to indicate there is still much to be learned of bird life in Minnesota. The staff at the Museum of Natural History can only cover a small part of this natural field. It is up to the amateur ornithologist to contribute his observations to the museum, and to *The Flicker,* in order that more complete records can be coordinated and maintained. To really do a proper job of studying, an extensive, full-time research program would have to be carried on in various parts of the state. Inasmuch as this is not feasible, the combined efforts of individuals must be relied on for the majority of observations and records. It is recognized that necessarily these reports must be somewhat haphazard, as for instance many reports show first arrivals in the spring to be on week ends. Yet this does not mean that the birds arrive only on the week end. The birders just go out more often on week ends. The fact that more birds of certain species are seen in one area rather than another usually means that is where the bird-watchers spend their time, and not that it is where the birds actually are.

Consequently, all these facts must be weighed in painting the true picture of Minnesota. Thus, the more accurate information that is supplied, the clearer and better the conclusions.

Dana R. Struthers

Preliminary Ornithological Survey Of French Creek Bog

by

Joyce H. LeFebvre

Several ornithological surveys of Itasca State Park have been completed but apparently no one has investigated the distribution of birds occurring in French Creek Bog. The primary aim of this preliminary investigation was to determine the distribution of birds in this bog.

French Creek Bog is located on the west shore of the north arm of Lake Itasca, Itasca State Park, Clearwater County, Minnesota. The bog, including the open sedge (*Carex* sp.) Bog Birch (*Betula pumila*) and Tamarack (*Larix laricina*) vegetational zones, is approximately 110 acres. The open sedge mat is approximately 1400 feet long, extending from the lake shore to the northwest corner of the bog. Surrounding the open sedge on three sides in concentric rings is the Bog Birch zone, followed by Tamarack, which grades into the vegetation of the surrounding upland ridges.

Field work extended from June 12

Table 1. Breeding birds recorded in the northern half of French Creek Bog.*

	Type of Habitat					
Species	*Sedge*	*Bog Birch*	*Tamarack*	*Bog meets upland*	*Total number of Pairs*	*Number of nests found*
American Bittern	f	n		x	1	1
Virginia Rail	n				1	1
Sora	n				1	1
Eastern Kingbird	f	f	f,n		2	2
Eastern Phoebe			x	f,n(?)		
Traill's Flycatcher		n	f,n(?)		5	1
Cedar Waxwing			f,n	f	6	3
Red-eyed Vireo			f,n	f,n(?)	3	1
Nashville Warbler			n		1	1
Parula Warbler			n		8	
Yellow Warbler		n	n	x	9	
Yellowthroat	x	n	n		20	2
Redwinged Blackbird	n,f	n	x	x	30	15
LeConte's Sparrow	n	x			8(?)	1
Swamp Sparrow		n	n		23	2
Song Sparrow			x	n	2	

* Census trails in bog birch and tamarack 2,000 and 1,500 feet long, respectively.
f feeding
n nesting
x presence observed

Table 2. Non-breeding birds observed in French Creek Bog.

Species	*Lake Shore*	*Open Sedge*	*Bog Birch*	*Tamarack*	*Bog Meets Upland*
Common Loon	p,f	f	f	f	f
Great Blue Heron	p,f	f	f	f	f
Mallard	p,f	f	f	f	f
Common Goldeneye	f	f	f	f	f
Broad-winged Hawk	f	f	f	f	f
Bald Eagle	f	f	f	f	f
Osprey	f	f	f	f	f
Black Tern	f				
Barred Owl				p(?)	
Common Nighthawk	f	f	f	f	f
Pileated Woodpecker		f	f	p	f
Yellow-bellied Sapsucker				p	p
Tree Swallow	f	f	f	f	f
Blue Jay		f	f		p
Common Crow				p	p
Catbird				p	p
Veery					p
Yellow-headed Blackbird	p	p			
Brown-headed Cowbird			p	p	p
Scarlet Tanager		f	f	p	p
Purple Finch	f	f	f	p	p
American Goldfinch	f	f	p	p	p

f flying overhead
p perched, swimming or standing

through July 6, 1959. Actual census work was not begun until June 20.

PROCEDURE

Two census trails in the Bog Birch and in the Tamarack zones, 2,000 and 1,500 feet long, respectively, were marked with tags at 50-foot intervals on the north half of the bog. Six trips were made over each trail, four trips on each trail from 5:00 to 9:00 a.m. and two trips on each trail from 1:00 to 5:00 p.m. In addition, the bog was traversed on two nights from 7:00 to 9:30 and 11:00 to 12:00. The open sedge was crossed twice by walking back and forth across the width at 10-foot intervals.

Three to five minute stops were made at each marked station along the two trails, and sight records and/or singing birds were noted on worksheets. After each trail had been covered six times, individual maps were made for each species so that approximate boundaries of territories and number of breeding pairs could be calculated.

Several nests were located in the course of this study, but no concentrated effort was made to locate all nests within the area. A summary of nesting information appears in Table 3.

CENSUS RESULTS

The breeding populations of the birds are summarized in Table 1. Sixteen species are known to have nested in the area, and 22 additional species were observed but were not known to have nested in the bog. Some species listed in Table 2 may have nested in the area previous to my arrival (e.g. Common Loon); and others, such as the Ameri-

Table 3. Summary of nesting data.

Species	*No. of nests*	*Av. number of egg or young (extremes)*	*Av. height of nests* (extremes)*	*Av. height of support. plants* (extremes)*	*Type of Habitat*		
					Open sedge	*Bog Birch*	*Tamarack*
American Bittern	1	3	5	12		x	
Virginia Rail	1	5+	6	12	x		
Sora	1	6+	5	12	x		
Eastern Kingbird	2	3.5 (3-4)	141 (120-162)	150 (60-240)			x
Traill's Flycatcher	1	4	26	60		x	
Cedar Waxwing	2	? (120-216)	168 (300-360)	330			x
Red-eyed Vireo	1	(destroyed)	50	72			x
Nashville Warbler	1	2					x
Yellowthroat	2	3.5 (3-4)	13 (3-12)	42 (24-60)			x
Redwinged Blackbird	15	3.5 (3-4)	14.3 (9.5-29)	32 (12-50)	x5	x10	
LeConte's Sparrow	1	(destroyed)		12	x		
Swamp Sparrow	2	4 (3-5)	7	12		x	

* inches

can Goldfinch, had not yet begun to nest at the completion of this study.

DISCUSSION

The majority of birds nesting in this community nested in the Bog Birch and Tamarack zone. The open sedge supported the least number of nesting birds. This is primarily due to the character of the vegetation, mainly *Carex* sp., which apparently does not provide suitable nesting cover for birds that might otherwise utilize this area.

The presence of Le Conte's Sparrow on the open sedge is an unusual observation for this area. This species had not been recorded for Itasca State Park previous to this spring (May 10, 1959), when it was observed by members of the Minnesota Ornithologists' Union. I recorded eight singing birds and I found one nest on the open sedge mat.

I observed two male Yellow-headed Blackbirds on the open sedge and lake shore from June 12-16. William Schmid also observed them on June 14. Considerable time was devoted to watching these two males for signs of nesting activity but at no time were females observed, and after June 16 the two males disappeared from the area. Yellow-headed Blackbirds are not known to nest within the park boundaries.

Hickey (notes on the succession of ovian communities at Itasca State Park, Minnesota, *The Flicker*, 28:2-10. 1956) recorded Swamp Sparrows in the sedge and cattail areas in other bogs within the park; I did not observe this species in the open sedge but I did record it in the Bog Birch and Tamarack areas. Likewise, I did not find breeding Song Sparrows in the bog proper, instead, they were recorded only where the bog meets the upland slope by the lake shore. — *Minnesota Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*

Seasonal Report

by

Mary Lupient

For the most part the weather during the last half of July to the first week of September was very hot and humid. Cool pleasant weather set in about the middle of September and frost occurred in northern sections of the state on September 16. The first week of October was Indian Summer weather which was all too short. From then on the weather was cloudy and cold. Rain and snow occurred intermittently over the state. In the north three to four inches of snow fell October 26. Precipitation was above normal. The Weather Bureau record for Minneapolis, Hennepin County, indicated 24.71 inches of precipitation from January 1, 1959 to October 27, 1959 and during the period July 1, 1959 to October 27, 1959 the precipitation was 13.66 inches. The migration proceeded normally except that the occurrence of a blizzard in Canada north of Minnesota drove many geese and ducks into northern and western sections somewhat earlier than usual. Otherwise, in other parts there was no record of exceptionally early movement of waterfowl. Mrs. Jane Olyphant reported a goose migration near St. Paul, Ramsey County, October 12. There were Snow and Canada Geese. Large flocks of Canada Geese, apparently looking for a place to land, circled over river lowlands in Scott County, October 15 and two Canadas spent a few days on Lake Nokomis, Minneapolis, Hennepin County, the third week of the same month. Hunters around McGregor, Aitkin County, stated that there was a goodly number of ducks and geese present on the opening of the hunting season. Also, the bag limit was taken by many nimrods in western and northwestern areas. Ducks, including Common Goldeneyes, had appeared in waters around the Twin Cities by October 19. In Scott County, October 3, thousands of Pintails wheeled in a great flock looking for a place to stop. According to Dr. Roberts in "Birds of Minnesota" this flight of Pintails is commonly seen in early October. Wood Ducks appeared to be more common than during the past few seasons.

About 50 Franklin's Gulls "hawked" in Scott County, October 3. With them was a late Common Nighthawk.

Approximately 50 Common Egrets spent the late summer in waters adjacent to the Minnesota River, Scott County. Seventy-five were seen in this same vicinity September 25 by A. C. Wangaard. Jane Olyphant reported a small number near Fergus Falls, Wilkin County, August 3.

Pheasant hunting was reportedly poor. Soy beans and corn had not been harvested, the cover was thick and a good deal of moisture made the going very muddy. Hunters were of the opinion that the pheasant crop was small. We consulted Dr. Arnold Erickson of the State Conservation Department who stated that the pheasant population was down about 40% from last year's count which was highest on record. He said pheasants were examined for disease but none was indicated.

In some areas the grouse population was apparently small. According to Harvey Gunderson and John Jarosz of the Museum of Natural History the hunting was poor in Mille Lacs and Aitkin Counties. However, reports indicated that they were abundant north of Ely, St. Louis County, and also along the North Shore. A small flock of Gray Partridge was seen in Scott County, near Shakopee, September 27 by this writer.

During the second week of September, Lester Badger saw 27 White Pelicans in McLeod County. On August 1, he said there was a concentration of about 3,000 shore birds along the shores of a small lake in the same county. They were mostly small peeps, Yellowlegs and Pectoral Sandpipers. In Mille Lacs County, M. Ivanous saw two Dowitchers October 12. On August 17, this writer was traveling through Douglas and Grant Counties on a bus and saw thousands of shore birds feeding in shallow waters. On the week end of September 18-19, one American Golden Plover and several Black-bellied Plovers were found in the grassy section on Minnesota Point, Duluth, St. Louis County. Brother Theodore reported one Whimbrel and two Sanderlings far out on the point on the same date. The water in Lake of the Isles, Minneapolis, was below normal this season during part of the time and Dorothy Legg saw several flocks of small peeps feeding on the muddy shoreline, October 19.

The only record of Whistling Swans was sent in by Dean Honetschlager, Stillwater, Washington County. A small flock was sighted there on October 14. He stated also that hawks were extremely active the week of September 20, and among others there were four Red-shouldered Hawks. The hawk count was made by members of the Minnesota Ornithologists' Union under Dr. P. B. Hofslund in Duluth the week end of September 18-19. Few hawks were flying, possibly due to wrong wind direction, but hundreds of Sparrow Hawks were perched on telephone and fence wires along the North Shore of Superior as far up as Schroeder, Cook County. Brother Theodore said that five Pigeon Hawks were observed on Minnesota Point on the above week end. Remarkably, this writer saw three Goshawks November 2 in Hennepin and Scott Counties.

The movement of swallows, thrushes and flycatchers was about as usual. Robins had gathered in great flocks by October 1. At this time thousands were singing in the rain along the shores of Lake Nokomis, Minneapolis. With them there were about 200 Myrtle Warblers feeding on the ground and several Golden-crowned Kinglets in the evergreen trees. An albino Robin was reported in Edina, suburb of Minneapolis, October 29 by Mrs. Sadie Whitesel.

A few Red-breasted Nuthatches appeared with the warbler migration which began August 11 in very hot weather. The warblers drifted through until late October. No waves of any size were reported. Myrtles were abundant this fall; they were reported from all parts of the state. An unusual number of Black-throated Blue Warblers was seen by R. E. Cole. Ten of them in a flock were on Minnesota Point September 22.

American Goldfinches in large flocks roamed the countryside adjacent to the St. Croix, Mississippi and Minnesota River valleys during September and early October. A Brown Thrasher was still lingering in Minneapolis October 3. Reportedly, clouds of Redwinged Blackbirds numbering tens of thousands were seen throughout the state. In an area in Scott County they settled in a pasture and blackened several acres of the earth October 25. Their flight was very spectacular. A large flock of Rusty Blackbirds was noted in Scott County, October 17.

Purple Finches had arrived in the Twin Cities by October 19.

The peak of the Slate-colored Junco migration was the week of October 15. Fox, Song and Harris' Sparrows passed through in comparatively large numbers at the same time. The first Tree Sparrows noted in Hennepin and Ramsey Counties were on October 13. Besides Marie Aftreith's record of Snow Buntings near Schroeder on the North Shore of Lake Superior, which follows, there were two records of a single bird each. Harvey Gunderson and John Jarosz saw one in Mille Lacs County, October 12

and one was seen by John Jarosz in Kanabec County, October 20.

The following communication, dated October 28, came from Marie Aftreith of Schroeder. "The fall migration on the shore was not as spectacular this year as last. First flight of geese October 11 and 150 plus on the 14, both flights were Canada Geese. A Catbird stopped for four days, October 6 to 10, a White-breasted Nuthatch came on the 11th and stayed until the 18th when a female Rose-breasted Grosbeak came. She eats with the Slate-colored Juncos, White-crowned and Tree Sparrows and Snow Buntings which are everywhere. October 28 we had a visit from a Boreal Chickadee."

The following, dated October 9, came from Dr. P. B. Hofslund, Duluth area. "Haven't been out to watch the hawks since the count, but I don't think that we have had a very great count. We only counted 772 on the four days. Had a big small bird flight last week end. On October 5 saw hundreds of Lapland Longspurs, Slate-colored Juncos, White-throated Sparrows and Water Pipits on the campus. Also several Yellow-shafted Flickers, Robins, Eastern Bluebirds and one Brown Thrasher. We picked up 18 dead birds around the windows on the 2nd, mostly warblers of various species, 18 dead sparrows, (White-throated and Slate-colored Juncos, plus one Swamp and one Lincoln's) on the 5th and an equal number of White-throated Sparrows and Slate-colored Juncos on the 6th and 8th."

The following records were received from Orwin Rustad October 29. "White-throated Sparrow, first fall record, September 13, 1959. Apparent waves, October 1, 6 and 21. Last banding record October 24. Slate-colored Junco. First fall record September 10. Black and White Warbler, banded September 1, Nashville Warbler banded September 26; Tennessee Warbler banded in Faribault, Rice County, October 11; Tennessee Warbler banded in Duluth, September 19; Wilson's Warbler banded September 13; Red-breasted Nuthatch, banded September 21; Swainson's Thrush, four banded September 24 and October 10; Hermit Thrush banded October 13; at Whitewater Park, Winona County, White-crowned Sparrow first seen and banded October 18; Fox Sparrow, first seen and banded September 27; Harris' Sparrow, first seen and banded September 27, last seen and banded October 18.

This writer attended a very successful meeting held by the American Ornithologists' Union in the new Museum of Natural History in Regina, Saskatchewan, Canada. Very interesting papers were presented and rewarding field trips scheduled. Six bus loads of members participated in one of the field trips, the highlight of which was the sight of approximately 10,000 Sandhill Cranes in one flock. About one-half of them rose and circled directly over us, evidently riding on the air currents. For several minutes they put on a wondrous show in the bright sunlight, constantly calling in melodious tones. There were several species of water birds seen on this trip, interesting ones, such as White Pelicans, Western Grebes, gulls, shore birds, etc. On another trip one of the most outstanding areas we visited was Qu'Appelle valley which is a long glacial valley lying in Saskatchewan. It has gently sloping walls broken by coulees. This valley is wide and at the time of the trip much of the floor was made up of mud flats and shallow water furnishing a fine opportunity to study shore birds and water birds which on that day were the same species we see in Minnesota. Rock Wrens inhabited the slopes which were strewn with small boulders and each pair of birds apparently included one rock in its territory because they kept constantly returning to perch on or about it. The Rock Wren is said to nest in a rock crevice but I did not see the nest or hear the bird sing. — *212 S.E. Bedford Street, Minneapolis, Minnesota.*

The Minnesota Bird Banders

by

Forest V. Strnad

The hawk flight from Duluth's Skyline Boulevard on the week end of September 19 and 20 was not spectacular this year because most of the time the sky was overcast and some of the time it rained. But for those persons who are interested in banding birds the week end was not a loss, in fact it proved to be very fruitful. The weather for this time of year was unusually warm and on Sunday the temperature got up to 61 degrees. There had been no general frost in the area.

Plans were set up by Carl Johnson and your writer for the banders to meet in Duluth this week end for the purpose of seeing if we might be able to net and band a variety of passerines, shore birds and, if possible, a few hawks, in addition to viewing the hawk migration. Gary Kuyava and Robert Cohen of Duluth took care of local details, such as notifying the police of our activities so that we would not be bothered by persons who did not understand our purpose. But in spite of this careful preparation our Sunday's banding was marred by having one 30-foot net cut off the poles and a 60-foot net knocked down by three boys about ten years of age. They said they wanted to protect the birds. Interestingly enough there were no birds in the nets at the time and I failed to see how they knew we were netting birds. A costly lesson to all of us and a reminder to have our government signs up stating the purpose of the nets.

Banding activities started Saturday morning about 7:00 o'clock when we set up three nets near the lake in a large patch of wild sunflowers which we called "Sunflower Slip." In two hours, 34 American Goldfinch were banded. Total length of nets was 60 feet. Banders were Gary Kuyava, Orwin Rustad and Forest Strnad. Robert Cohen was present but did not band.

Since many of the birds we were catching were already banded (Cohen had banded 73 birds there the day before, Carl Johnson had banded there on Labor Day week end and Gary had done some banding there) we pulled the nets and some of the banders went out to Morgan Park to set up nets in the bay of the St. Louis River near the steel plant. Banding activity was carried on there until around 2:00 o'clock with three 60-foot nets. Birds that were netted and banded included: Baird's Sandpiper, Semipalmated Sandpiper, Semipalmated Plover, and Water Pipit. Banders were Bob Cohen, Gary Kuyava and Mr. and Mrs. Boyd Lien.

Later in the afternoon Mr. and Mrs. Murray Olyphant of St. Paul, Dr. Ward Tanner of St. Peter, and Dr. Paul LaPlant and his son, Ralph, of Anoka expressed a desire to see nets in operation so Orwin Rustad and I took them back to the "Sunflower Slip." We set up one 60-foot net of 1½-inch mesh. From about 3:15 until 4:00 o'clock when the overcast turned into rain we were able to band an additional 23 American Goldfinch, one Song Sparrow and one Tennessee Warbler.

Mrs. Olyphant had just received her permit, bands and records from the Fish and Wildlife Service, after waiting since last March when she made her first inquiry for a permit. If you are still waiting for your permit don't get discouraged. Murray and Jane live at 4000 Hidden Bay Road, and they tell us it is truly a place for the birds. Two pair of Wood Ducks nested there this year

and last winter Pileated Woodpeckers were in their yard.

Dr. Tanner has had his permit for about eight years. He secured it when he was working on his doctoral thesis at Iowa State College.

Saturday evening proved to be a very fruitful time for all birders in general, as we enjoyed an informal program at the University of Minnesota, Duluth Branch. Under the leadership of Dr. P. B. Hofslund, Bob Cohen and Gary Kuyava we heard Orwin Rustad speak about his work with the Minnesota Department of Conservation banding ducks. Gordon Gullion presented slides and told us of his work with game birds in the western United States and with Ruffed Grouse in Minnesota. Robert Dickerman brought a film from the University of Minnesota, Museum of Natural History on "The Plight of the Duck Hunter." Dana Struthers, our M.O.U. President, brought his net and gave a very interesting talk and demonstration on the banding of hawks. He brought with him a Sparrow Hawk which he had netted that afternoon and Gary Kuyava banded it. The banding of Herring Gulls was discussed by Dr. Hofslund and he showed graphs on slides which illustrated where some of the birds had been recovered which he had banded.

Following these presentations a short business meeting was held for the banders to determine the future course they wished to take. It was decided not to form a formal organization with officers at this time. Approval of and appreciation for the mimeographed report of banding in Minnesota in 1958 was expressed and encouragement was given to Carl Johnson and your writer to continue with plans for a similar report of birds banded in 1959 in Minnesota. A proposal for a mid-winter banding session somewhere in the northern part of our state was made so that some of the boreal birds might be banded. Many of the banders felt that the weather would be against us and that this project would not be possible.

Sunday morning the banders set up their operations in the bay of the St. Louis River, near the steel mill, in Morgan Park. This time we were joined by Mr. and Mrs. Carl Johnson and his brother Ted of Rochester and Mr. and Mrs. Scott Findley of Sioux Falls, South Dakota. When all the nets were put up on the water and on land we figured that we had out over 1700 feet of the nets. The first birds were banded by 9:15. The day was very warm and the sky was overcast almost all day. It even rained a bit at times and late in the afternoon the sun came out from behind the clouds for a short interval. Shore birds were not as plentiful as we had expected but we did band Semipalmated Sandpipers, Semipalmated and Black-bellied Plovers. A new species for many of us was the Water Pipit. The only Pigeon Hawk we got during the week

end was caught in nets over the water. Apparently it had dived on a Semipalmated Sandpiper. White-throated, Song and Savannah Sparrows, American Goldfinches, Northern Waterthrushes, Catbirds, Myrtle, Yellow, Nashville and Palm Warblers and the Traill's Flycatcher made up the balance of the 69 birds we banded on Sunday.

In addition to the persons mentioned earlier Mr. and Mrs. Boyd Lien joined us for a while Sunday afternoon and banded several birds. Also present and banding were Cohen, Kuyava, Rustad and Strnad.

Nets were activated again on Monday morning on the crest of a hill above Skyline Boulevard and back of Gary Kuyava's home. Twelve 60-foot nets were erected to catch hawks and/or passerine birds. House Sparrows were used for bait for the hawk nets. A string was stretched tight between two shrubs and a loop was tied to the center of this string. Through this loop we ran another string, one end of which was attached to the sparrow's leg by means of tape and the other end was run some 50 or 60 feet to a clump of shrubs where one of the banders was hiding. When a hawk was sighted the string was pulled causing the sparrow to flutter, thus attracting the attention of the hawk. Since hawks have excellent eyesight they could see the bird from a great distance. The morning was cloudy until around 10:00 o'clock but in spite of this three Sharp-shinned Hawks were netted and banded.

Nets were taken down on the hill around 2 o'clock and set up about a half-hour later at the park on Minnesota Point. Banding activity for Monday stopped around 4:00 o'clock when a brisk wind came up, making many of the nets ineffective.

Birds netted on Monday included the Lincoln's and White-throated Sparrows, Black-capped Chickadees, Red-breasted Nuthatch, Ovenbird, Palm, Tennessee, Nashville, Myrtle, Magnolia and Bay-breasted Warblers, Solitary and Red-eyed Vireos, Blue Jays, Swainson's Thrush, Brown Creeper, Slate-colored Juncos, Northern Waterthrush and the Yellow-shafted Flicker. Banders on Monday were Scott Findley, Gary Kuyava, Bob Cohen, Carl Johnson and Forest Strnad. We were assisted by Mrs. Findley, Mrs. Carl Johnson and Ted Johnson.

Heavy rains Tuesday morning prevented further netting operations.

I have tried to figure out the total number of hours that the nets were in operation and I have come up with the figure, 153 hours. I can not break this down into the exact number of footage of nets used at different times. The results for the week end show that 211 individual birds of 35 species were banded. That would average out a little bit over two birds per net hours.

The following table shows the results for the week end for each bander. As each bander participated a different number of hours and some banders were more interested in securing new species than building up the total number of birds they banded we see the difference in the number of birds each person banded. —*Kasson, Minnesota*

Editor's Note: In the last "Minnesota Bird Banders" section (Volume 31, Number 3) it was stated on page 89 that the Yellow-breasted Chat listed was the first one banded in Minnesota. Since this was written, Forest Strnad has received information from Mrs. C. E. Peterson in Madison, Lac qui Parle County that she had banded 11 chats between 1934 and 1950. This additional information shows to every bander and observer the importance of submitting information to the Editorial Staff of *The Flicker* so that we may report as complete and accurate records of banding and observations as possible.

A.O.U. No. Species	Robert Cohen	Scott Findley	Carl M. Johnson	Gary Kuyava	Boyd Lien	Orwin A. Rustad	Forest V. Strnad	TOTALS
241—Baird's Sandpiper				1				1
246—Semipalmated Sandpiper	3			2			1	6
270—Black-bellied Plover						1	1	2
274—Semipalmated Plover	1	2		1		1	1	6
332—Sharp-shinned Hawk			1	1			1	3
357—Pigeon Hawk	1							1
360—Sparrow Hawk				1				1
412—Yellow-shafted Flicker				1				1
466—Traill's Flycatcher		1						1
467—Least Flycatcher				1				1
477—Blue Jay				2			1	3
529—American Goldfinch		5		10	3	28	23	69
542—Savannah Sparrow		1					1	2
558—White-throated Sparrow		15	1	2	2		6	26
567—Slate-colored Junco		1		1				2
581—Song Sparrow		1				1	1	3
583—Lincoln's Sparrow							1	1
624—Red-eyed Vireo	2	1					1	4
629—Solitary Vireo		1						1
645—Nashville Warbler	1				1			2
647—Tennessee Warbler						1	1	2
652—Yellow Warbler		1					1	2
655—Myrtle Warbler	2	4	1	1	1		1	10
657—Magnolia Warbler				1				1
660—Bay-breasted Warbler		1	1				1	3
672—Palm Warbler	1	4	2	2	1	1	4	15
674—Ovenbird	1							1
675—Northern Waterthrush		1					1	2
687—American Redstart	1							1
697—Water Pipit	1	1	1	2	1	1	1	8
704—Catbird		3						3
726—Brown Creeper		1						1
728—Red-breasted Nuthatch							1	1
735—Black-capped Chickadee	3	10		1			10	24
758a—Swainson's Thrush		1						1
Total Species	11	19	6	16	6	7	20	35
Total Individual Birds	17	55	7	30	9	34	59	211

Mammals of Itasca State Park, Minnesota

by

Alan B. Sargeant and William H. Marshall[1]

Since the discovery of the Mississippi River in 1832, the Lake Itasca area has been of historic importance and biological interest to many Minnesotans (Dobie, 1959). In April of 1891, after months of heated debate, legislation establishing Itasca State Park was passed. Itasca Park has grown and developed to the extent that now approximately 32,000 acres are included within its boundaries. The park contains deciduous and coniferous forests, bays and open water areas, as well as grassy fields which combine to form a wide array of habitats available to the wild life of the area. The mammals of all sizes are an important component of the park's natural history features.

Itasca Park is fast becoming an isolated but relatively undisturbed habitat in a settled and developed region. This isolation is highlighted by the loss of the timber wolf, a species which requires large wilderness areas and which no longer inhabits the park.

Early in the history of the area there was some settlement and clearing of the land inside the park which undoubtedly resulted in several species of mammals moving into the park. The pocket gopher and ground squirrels are perhaps the most vivid examples of these.

As with most parks, emphasis has been placed on its preservation as an undisturbed area. Fire, once common to the region, has now largely been eliminated. As a result, the forests are progressing toward mature stands of timber and the forest openings, once common, have all but vanished. This has undoubtedly affected the food conditions for both deer and beaver as well as other mammals.

The protection of some mammals was overemphasized and a sad lesson learned. With complete protection the deer population built up to such a level that quality food sources were drastically reduced and starvation was prevalent. More important, the coniferous reproduction in the park was virtually eliminated. Careful management of the deer population could have avoided this problem. It was alleviated in 1945, but only after considerable damage occurred to the forests. The beaver story is similar. Under protection they too built up to such a level that almost complete elimination of food sources prevailed. Even today after a spectacular reduction in the beaver population, caused by a severe winter in 1937, food sources have not yet been replenished.

This history of changes makes faunal lists of importance in recording the variations of wildlife populations of the park. The following list of mammals is arranged by family groups in phylogenetic order. Much of the information presented has been collected by students and personnel at the University of Minnesota Forestry and Biological Station, located in the park. Park personnel and an earlier list of mammals of the park by Gustav Swanson (1943) have been of considerable aid in the preparation of this report. The present list encompasses all known records up to August 1959.

SHREWS (Family *Soricidae*)

Five aspects of shrews are known in Itasca Park. The Water, Short-tailed, Arctic, and Masked Shrews are each represented by numerous specimens. The Pygmy Shrew, recorded by Gustav Swanson in 1943, has been taken only once within the park.

1/ Paper No. 4296 Scientific Journal Series, Minnesota Agricultural Experiment Station, St. Paul 1, Minnesota.

The biology of the shrews is perhaps the least understood of the mammals occurring in the park. In general, they are carniverous in their feeding habits and prefer moist habitats for their activities.

The Water Shrew is a semi-aquatic mammal. Aided by rows of hairs on each of its hind feet it is a proficient swimmer. This shrew has been collected several times along the headwaters of the Mississippi. Specimens are also available from the Floating Bog Bay and Schoolcraft Island, both on Lake Itasca itself.

The Short-tailed Shrew has been taken many times on the damp forest floor under a maple basswood stand one-half mile southeast of the Biological Station. A strong musty odor, characteristic of all the shrews, is particularly noticeable with this species. The Short-tailed Shrew, together with the Water Shrew, are the largest members of this family occurring in the park, both having a body about 3½ inches long.

The smaller Arctic Shrew has a definite bi-colored appearance. Its brownish sides and black back distinguish it from the uniform gray-black coloration of the other species. Eight specimens taken in a sedge-cattail marsh during the summer of 1946 comprise its known distribution in the park.

The Masked and Pygmy Shrews are the smallest mammals occurring in the park. A full grown individual has a body usually not exceeding 2½ inches in length and weighs only a few grams. Specimens of the Masked Shrew are numerous and have been taken from many of the habitat types. This seems to indicate it is quite widespread and perhaps the most abundant of the park's shrews. The Pygmy Shrew is so similar in appearance that positive identification usually depends on close examination of the skull.

The shrews are known for their quick movements and voracious appetites. Small beady eyes and short dense fur give them a sleek appearance. Their nocturnal habits and secretive nature combine to make them a mammal seldom seen by the park visitor.

MOLE (Family *Talpidae*)

The Star-nosed Mole is the only mole represented in the park. Although only two specimens have been taken, they are probably quite widespread. One specimen was found dead on the shore of Lake Itasca in 1950 and another was trapped on Schoolcraft Island in 1958.

This mammal spends much of its time in shallow burrows constructed just beneath the soil surface. The presence of its sub-surface runways are usually characterized by a small ridge pushed above them on the surface. They are usually found living in damp soil areas and are particularly common along the borders of swamps and marshes. A characteristic mound, quite similar to that of the pocket gopher, is often constructed over a burrow. When above ground this species exhibits a semi-aquatic form of life.

Twenty-two fleshy tentacles radiating from the nose readily distinguish it from all other species occurring the park.

BATS (Family *Vespertilionidae*)

Six bats are believed to occur within the park. The Big Brown, Little Brown, Silver-haired, and Hoary Bats are each represented by several specimens. Keen's Little Brown Bat was reported by Gustav Swanson to have been taken in the area prior to 1943, but no specimens have been taken since. The Red Bat has not been collected in the park or adjacent areas; however, it is quite likely that this species is present as Itasca Park lies well within its known range.

The Little Brown Bat is by far the most abundant. On most summer evenings it may be seen feeding above the water along the shore of Lake Itasca, particularly near the Biological Station. They prefer roosting in attics, under eaves, and in the crevices of buildings where frequently large numbers may congregate. The Big Brown and Keen's Little Brown Bats have habits quite

similar to those of the Little Brown Bat but neither are as abundant and therefore are seldom seen.

The Silver-haired, Hoary, and Red Bats are commonly called "Tree Bats." Unlike the other three species these prefer solitary roosting in the forests of the park. The Tree Bats usually feed in the forest openings although occasionally they may be seen flying over the numerous ponds and lakes. They display brighter coloration and are larger in size than the other bats. The Hoary Bat is the largest bat occurring in the park. A female collected in July of 1959 had a wingspread of 15 inches. The tail membrane of the Tree Bats is at least half furred in contrast to the naked tail membrane of the other species. The Tree Bats migrate south for the winter, whereas the other species may hibernate in the area.

Father Lazarus Macior in June of 1959 witnessed a case of predation on a female Hoary Bat. The Gray Jays attacked the bat which was roosting in a tamarack tree near the Twin Lake Bog. The bat was carrying at least two young. The jays tangled the bat in pendant fruiticose lichens near the top of the tree, consumed one of the young, and left the bat helplessly tangled in the tree. Several hours later the bat and its one remaining young were captured. Neither had suffered any apparent harm.

Bats are nocturnal and known to avoid obstacles when in flight by a means of "echo location." They also make use of this mechanism in their insectivorous food gathering habits.

HARES AND RABBITS
(Family *Leporidae*)

This group is represented by the Snowshoe Rabbit, actually a hare, and the Cottontail Rabbit. Both are quite similar in color during the summer months, but with the approach of winter the Snowshoe undergoes a pelage change and turns white while the Cottontail remains a mottled brown color. The Snowshoe is often abundant and can be seen almost anywhere in the park. Several specimens have been collected.

The Cottontail is quite scarce and no specimens have been collected to date. Walter Nelson, foreman at the Biological Station, reported seeing Cottontails in the vicinity of the station as late as the winter of 1956. Since that time no individuals have been reported in the park.

Both the Snowshoe and the Cottontail are vegetarians and primarily nocturnal in their habits, although individuals may be seen during daylight hours. During the winter months the bark of small trees and shrubs comprise the bulk of their diet.

SQUIRRELS (Family *Sciuridae*)

This family includes the chipmunks, woodchucks, ground squirrels, tree squirrels, and flying squirrels. It has the largest known number of species of any family of mammals occurring in the park.

Chipmunks

Two chipmunks, the Eastern and Least are both common inhabitants of the park and seem to prefer living in the brushy forest edges particularly around upland clearings. The Least Chipmunk is less specific in its habitat selection and therefore is more widespread throughout the park. Both species are common inhabitants of the grounds at the Biological Station and Museum areas.

Diurnal habits, prominent black, white and rufous back stripes, and their saucy nature combine to make the chipmunks readily visible to many visitors. A chirping sound made by both will often draw one's attention to them. During late summer and fall a protective layer of fat is built up to sustain them throughout their winter hibernation.

When running, Least Chipmunks characteristically hold their tails straight up in the air. The Eastern Chipmunks, somewhat larger in size, will hold their tails straight behind when running,

usually serving to readily distinguish these two species.

Woodchucks

The woodchuck is the largest member of this family in the park. It is a ground dweller living in a system of burrows. At times this species is quite common but seems to be rather closely associated with fields or other cleared upland areas. Woodchucks are primarily diurnal in their activities and are vegetarians in their feeding habits. Being a hibernator, winter survival again depends on stored fat.

Ground Squirrels

The Thirteen-line and Franklin's Ground Squirrels comprise this group. Neither are native species but were immigrants from the nearby prairie as clearing and settlement progressed. Their distribution is limited to cleared upland areas with abundant grass cover. The grounds at the Biological Station and Museum each support populations which represent the bulk of the Ground Squirrels occurring in the park. Ground Squirrels live in a system of burrows and are often seen standing erect near one of their entrances.

The Franklin's Ground Squirrel, commonly called Gray Gopher, has become quite tame and may even take food from a friendly picnicker. The gray color of the Franklin's Ground Squirrel and the numerous stripes on the Thirteen-lined Ground Squirrel readily distinguish these two species. Both are diurnal in their activities, vegetarians, and winter hibernators.

Tree Squirrels

Three species of tree squirrels; the Red, Gray, and Fox Squirrel have been reported as occurring in the park. These squirrels are commonly found living in hollow trees but often will construct leaf nests in the tree tops.

The Red Squirrel, smallest of the tree squirrels, is by far the most abundant species of this group. Although having a preference for conifers, they inhabit almost every forest type and are therefore widespread in occurrence. Studies conducted at the Biological Station during June and July of 1959 indicated 17 adults were living on the station grounds at that time. Red Squirrels are quite versatile in their movements. One individual live trapped and tagged at the Biological Station in July 1955 was killed two miles northeast of the station about two weeks later while robbing a kinglet nest. The small size and bright red-brown fur of the Red Squirrel readily distinguish it from the other members of this group.

The Gray Squirrel has been collected twice in the park. One specimen was taken in 1938, and another in 1949. During the summer of 1959 a Gray Squirrel was sighted one-half mile southeast of the Biological Station. This species is primarily a dweller of the deciduous forests, south and west of the park.

Gustav Swanson reported in 1943 that Dr. C. O. Rosendahl had seen a Fox Squirrel in the park. This is the only record available for the Fox Squirrel which indicates that it is extremely rare or even absent at the present time. Tree squirrels are non-hibernators. Their winter survival depends primarily on fat reserves and mast stores. Being diurnal in behavior, the more abundant species can be seen by most visitors.

Flying Squirrels

Both the Northern and Southern Flying Squirrels have been recorded in the park. Unlike the other members of this family, the Flying Squirrels are strictly nocturnal. A well developed fold of skin connecting the front and hind legs enables them to glide considerable distances. Both species are similar in appearance and field identification may prove difficult.

Hatfield (1938) reported collecting two Southern Flying Squirrels which are the only records available on its presence in the park. The Northern Flying Squirrel, which is larger, was first captured in 1946 and since has been collected several times. Most of the speci-

mens available were captured at the Biological Station where they had congregated in burr oak trees during late summer and early fall to feed on acorns.

Andie Peterson, park superintendent and Joe Mockford, park ranger, reported that Flying Squirrels used bird feeding stations intensively during the winter of 1956.

POCKET GOPHER
(Family *Geomyidae*)

The Pocket Gopher is a species of the prairie and is present in the park only as a result of settlement and clearing. Almost the entire life of a gopher is spent underground in a system of burrows and therefore it is seldom observed unless in the process of pushing dirt from one of the tunnels.

The presence of gophers is unmistakable as they construct numerous mounds on the soil surface from tunnel diggings. One adult Pocket Gopher is thought to inhabit a burrow system. The burrow system is generally quite large, as is evidenced by a number of mounds. Most grassy clearings will eventually show sign of their presence. Specimens have been taken from the Museum area and from a clearing along the LaSalle Trail. Their presence was also noted at the Biological Station. This species is primarily a vegetarian feeding on roots and seeds which may be stored in their burrows. Although a relatively uncommon mammal of the park, their evidence may be seen by most visitors.

BEAVER (Family *Castoridae*)

The history of the beaver in Itasca Park has been followed rather closely during the past 60 years. Records show that by 1901 uncontrolled trapping had virtually exterminated the beaver population of the park. During August of that year, two females and one male beaver were obtained from Canada and released on Schoolcraft Island. From here they moved to Lower Nicollet Lake. Under protection the descendants of these beaver increased at a rapid rate. Population estimates in 1912 indicated 250 beaver in the park, in 1918, 750, and in 1921 a peak population of 1,000 individuals.

This population in its rapid buildup had virtually eaten itself out of house and home. Scarcely an aspen, the beaver's preferred and staple food in this area, remained standing within reach of open water. Hillsides of such timber bordering the major lakes were denuded.

By 1934 the population had been reduced to 615 individuals; however, this was still too many for the greatly reduced food supply. During 1934 the entire area was subjected to a severe drought. Water levels dropped and many of the ponds and creeks went dry. The following winter proved to be abnormally cold. Many of the ponds, now reduced in size, froze solid. Underwater food stores froze up and many beaver were forced to vacate their lodges and were thus exposed to predation and the ravages of winter. By spring the Itasca

beaver population was again at a low level; however, the destruction created by the previous high population still remained. Fresh beaver "signs" may presently be found at many places in the park but the washed out dams across Nicollet and LaSalle creeks; rotting stumps in a sedge meadow, the remains of a once flooded tamarack-spruce bog; and the grown-over lodges in most every pond are vivid reminders of the once high population.

In 1955 the Itasca beaver population was estimated at approximately 400 individuals which is within the safe limits of the food supply.

The beaver is an ardent worker and efficient engineer. Skillfully constructed dams of mud and sticks impound water thus enabling the beaver to utilize a favorable habitat. These impoundments provide shelter and highways to food supplies. By controlling water levels, beaver are able to alter extensive areas of habitat which often proves beneficial to other forms of wildlife.

NEW WORLD MICE
(Family *Cricetidae*)

Six species of mice occur in Itasca Park. The Deer Mice and White-footed Mice; the Red-backed Mice, Meadow Vole, and Southern Bog Lemming; and the Muskrat comprise this family's representation. The mice are capable of high reproductive rates; several litters of four to six young are often born throughout the summer months. This family forms an important link in the food supply of many mammals and birds. An individual that lives to be a year old is most certainly the exception rather than the rule.

Deer Mice and White-footed Mice

These two mice, although separate species, are so similar in appearance and habits that often it is almost impossible to distinguish between them on casual inspection. Identification of the many specimens taken indicates that Deer Mice are the more abundant and in fact, are perhaps the most abundant mammal occurring in the park. Studies conducted in a maple-basswood forest one-half mile southeast of the Biological Station during August of 1948-49 indicated that a density of 10 to 15 Deer and White-footed Mice per acre could be expected in that habitat type. Upland deciduous forests with a dense understory appear to support the highest populations of these mice.

The Deer and White-footed Mice are both nocturnal and therefore, even though abundant, seldom seen.

Red-back Mice, Meadow Vole, and Southern Bog Lemming

These three species are quite similar in appearance, all being short-legged, short-tailed, dark-bodied mice.

The Red-back Mouse is an abundant species of the park, preferring to live in damp forested areas where ground cover is heavy, particularly such cover as logs and brush. Their habitat requirement seems best fulfilled in the brushy edges bordering bogs, meadows, and fields. They are primarily nocturnal in their activities although considerable activity is exhibited during daylight hours. Due to their diurnal habits they may occasionally be seen by the park visitor. A reddish back combined with a bi-colored tail and white belly distinguish this species from the Meadow Vole and Southern Bog Lemming.

The Meadow Vole is another abundant species and in localized areas may reach extremely high population levels. The habitat requirement of this species is quite specific. Open areas with heavy grass or sedge cover are preferred. Before settlers moved into the park, sedge meadows and sedge fringes bordering the lakes were undoubtedly its primary habitat. The clearing of land, which reverted open grassy fields expanded the range of the Meadow Vole as it quickly invaded this new habitat. Many specimens have been collected on the French Creek Bog as well as on the fields just north of Lake Itasca.

Voles exhibit both nocturnal and diur-

nal habits and often will be seen darting about when one is walking across a field. Runways strewn with cut grass and droppings are ample evidence of their presence as are small nests of grass constructed on the surface. This mouse with its brown pelage and short dark tail is most readily confused with the Southern Bog Lemming; however, in the lemming the tail is shorter, not exceeding the length of the hind foot as it does in the vole.

The Southern Bog Lemming is perhaps the least common member of this group. In approximately 3,000 trap-nights during June and July of 1959, five individuals were captured. Four were taken on the edge of small sedge marshes bordering inlets into Lake Itasca. The other was taken at the outlet of Lake Mary. These and other specimens taken in the park seem to indicate that this mammal is primarily a species of the bogs.

Muskrat

The muskrat is the largest member of this family. It has become adapted to an aquatic form of life and is therefore restricted in the park to the lakes, ponds, and streams, where it is quite common. Muskrats feed primarily on aquatic vegetation; leaves of wild rice, cattail, and arrowhead tubers, are commonly eaten.

During fall, the activity of Muskrats is devoted primarily to the construction of burrows and surface houses, usually of cattail or bulrush, which form a place of winter residence. The occurrence of these houses conspicuously reveals the presence of this species; however, after the spring thaw most houses deteriorate rapidly and soon disappear.

A cold winter may force many Muskrats to leave the protection of their houses in search of new cover, which is seldom found before a predator or accident kills the individual. Muskrats are excellent swimmers and like the beaver are able to swim considerable distances under the water. During the winter they obtain oxygen from air pockets trapped under the ice, and from numerous houses and feeding stations constructed on the surface.

OLD WORLD MICE AND RATS (Family *Muridae*)

The House Mouse is the only member of this family occurring in the park, where it is quite rare. Only two specimens are available, one taken in 1947 and one killed on the north boundary road in 1959. Its scarcity is probably due to the limited number of heated dwellings available during the winter. Without such shelter chances of survival are slim. This same factor is probably responsible for the fact that no rats have been reported in the park.

JUMPING MICE (Family *Zapodidae*)

The Meadow Jumping Mouse, an abundant species in the park and the Woodland Jumping Mouse, only recently discovered here, comprise this family's representation. Their extremely long tails and elongated hind feet are distinguishing features. They are quite similar in appearance but can be distinguished from each other by the white-tipped tail present only on the Woodland Jumping Mouse.

Numerous specimens of the Meadow Jumping Mouse are available. Damp grassy clearings bordering small streams seem to be particularly favorable for their activities; however, they are found in most of the deciduous upland. Quimby (1949) reports them as being quite adapted to swimming and records one case of predation by a northern pike. They seem to feed primarily on seeds but will eat wild berries when available. A small pile of grass-seed hulls will usually prove to be one of their feeding sites.

The Woodland Jumping Mouse was first taken in the park in July of 1957 by Garrett C. Clough (1959). This specimen represented a 100-mile westward extension of its known range. During August of 1959 two additional specimens were taken by Dr. Howard Orr on Bear

Paw Point, just south of the Biological Station. Undoubtedly this is one of the rarer park mammals.

NEW WORLD PORCUPINES (Family *Erethizontidae*)

The porcupine is a common species of the park. Making little attempt to be seclusive it is commonly seen along the park roads particularly after dark. The porcupine coat of quills gives it ample protection from most predatory species.

A porcupine was reported to have been sighted swimming across the west arm of Lake Itasca during July of 1959, a distance of one-fourth mile. This would indicate that porcupines are very capable swimmers, although perhaps this is a little used resource.

During the winter they are known to feed on the bark of trees. Often they will strip off the bark to such an extent that death of the tree will result. Under some circumstances where valuable tree specimens were involved, control of porcupine numbers was found necessary.

CANIDS (Family *Canidae*)

Three species of canids; the Coyote, Red Fox, and Gray Fox inhabit the area. A fourth species, the Timber Wolf, is no longer a resident. The canids, particularly the wolves, are known to be great travelers covering large distances in their activities. They are all carnivorous, and prey on a variety of animal life in their continual search for food.

The Coyote or Brush Wolf has been present in the park for quite some time. The only information on its abundance dates back to the winters of 1927 to 1930. At this time 45 individuals were trapped in the southern half of the park as an attempted means of predator control. At present, the Coyote in all probability is not this abundant; however, it is still a resident of the park. Even though it is a large mammal, it is seldom seen, indicating the secrecy displayed by this species.

The Red Fox is undoubtedly the most common canid of the area and numerous sight records are available; the most recent sighting was made in July of 1959.

Andie Peterson reported seeing a Gray Fox several times during the winter of 1953 which constitutes the only record available on this species.

The Timber Wolf, once a common species is no longer present. The last individual recorded visiting the area was trapped in 1938. Timber Wolves are a wilderness mammal and with the encroachment of civilization they have been forced farther north.

BLACK BEAR (Family *Ursidae*)

The Black Bear has been known in the area ever since its discovery. Presently it is by no means an abundant species but undoubtedly several individuals inhabit the park. In the winter they hibernate in protected sites such as under windfalls or brush piles. It is during this time that the young are born. The bear is omniverous in its feeding habits with such foods as berries preferred.

During the summer of 1959 two sightings of the Black Bear were reported; one was sighted near Elk Lake and the other on the east arm of Lake Itasca. Due to its low numbers they are seldom seen by the park visitor.

RACCOON (Family *Procyonidae*)

The raccoon is a common species of the park. Through the years it has adapted itself quite readily to human habitation. Camping and picnic areas attract many raccoon desirous of obtaining unguarded food supplies and in a few cases they have forced their way through tents in order to get a meal. They are night travelers and very bold in nature and are often seen standing along the park roads.

The raccoon is known to live in large hollow trees where it will spend the winter months in hibernation. Weight studies during the summers of 1948 through 1955 show that the raccoon of this area average three pounds heavier than the same species taken in Michigan (Marshall, 1959). The raccoon of

(Continued on page 126)

The resonant booming call of the Greater Prairie Chicken can still be heard on early spring mornings in parts of Minnesota.

Large expanses of grassland are of prime importance to su usually on a ridge or hill and from year to year.

"BOOMING

Frequent bouts with adjacent cocks determine the boundaries of individual territories.

Booming attracts females to grounds, is part of the courts hen to an individual cock, a up and maintaining the terri

for nesting and brood cover
rvival. Booming grounds are
generally are not changed

Each cock establishes a territory on the booming ground.

" by John R. Tester

the vicinity of the booming
hip display which attracts a
d seems to serve in setting
tory.

Booming continues into June until no more hens appear at the ground.

(Continued from page 123)
northwestern Minnesota are thought to be the largest members of this species in the United States.

MUSTELIDS (Family *Mustelidae*)

Five species of this family are known to occur in the park. They are the Ermine, Mink, Badger, Striped Skunk, and River Otter. The Least Weasel and Long-tailed Weasel are known to occur in the region but no specimens as yet have been reported from the park itself. All species or this group contain well developed scent glands. They are primarily carniverous and with the exception of the Badger and Skunk, are nonhibernators.

The Weasel and Mink have slender elongated bodies adapted for quick movements. Weasels are brown throughout the summer but turn white during the winter while the Mink remains dark brown or black in color throughout the year. The Ermine, the Common Weasel of the park, and the Long-tailed Weasel are larger than the Least Weasel and are characterized by a black-tipped tail. Mink are larger in size and much darker in color than the Weasels and can therefore be distinguished in the field quite readily.

The Badger is not a common species of the park; however, in the cleared surrounding areas it is quite abundant. This mammal is an excellent digger, often making a burrow in open fields. Its powerful feet enable it to dig at rapid rates. One specimen collected in 1959 is the only record available from the park.

Skunks are quite common and often seen in the park, but because of their distinctive odor they are usually avoided. A nest of turtle or bird eggs create a desired meal for most any wandering Skunk. Scarcely a turtle nest remains undisturbed by this species in its quest for food. Their pungent odor and the black and white-striped back leave little chance for misidentification.

The River Otter has been seen in the park several times. Its tracks in the snow are often seen along the lakes and streams during the winter indicating it is a fairly common mammal. Two adult and four young were sighted eating crayfish in Twin Lakes during the summer of 1946 and an adult was sighted in Desoto Lake in 1957. In 1958 one was reported to have been sighted on Lake Itasca.

The Otter is an aquatic mammal and spends most of its life traveling in or near water. During the winter it will search out a hole in the ice and enter the water in search of food. During the winter of 1943 Andy Peterson reported seeing an Otter swim under his fish house on Lake Itasca. Otter are playful mammals and often will make slides in the snow for their enjoyment.

CATS (Family *Felidae*)

At present no records are available on the occurrence of any members of this family in the park. It seems likely that the Bobcat does occur in the park as individuals have been taken in the surrounding area. The Bobcat is a carniverous species depending on other mammals and bird life for much of its food. It is primarily nocturnal and will travel a considerable distance in its activities.

No records of the Lynx or even rarer Mountain Lion are available from the area.

DEER AND MOOSE
(Family *Cervidae*)

The complete protection of the Itasca deer herd prior to 1945 resulted in a population, estimated by CCC drives in 1935, 1937, and 1939, as of 75 deer per square mile. As early as 1921 starvation conditions were noted and losses occurred. Attempts were made to artificially feed these deer during severe winter months. This, however, created a still more undesirable situation. There were simply too many deer for the habitat. The population was so high, and browse conditions so poor that between 1920 and 1945 virtually no coniferous regeneration occurred in the park. In 1943 winter starvation losses were esti-

mated at over 1,000 deer in the northern half of the park.

During those years of high population a harvestable surplus of deer was wasted and, more important, immeasurable damage was inflicted on the Itasca forests.

In 1945 the first deer season was opened in Itasca Park and the deer population was reduced to a very low level. Since that time the herd has increased considerably under close management and there has been a resurgence in the regeneration of forest seedlings as well as renewed growths of many brush species.

Presently the moose is not an inhabitant of the park but is commonly seen traveling through the area. Joe Medford reported that the most recent sighting was made by a local resident who reported two moose on the west park boundary in 1958.

Check List of Itasca Park Mammals

Those species followed by an * are represented by specimens in the collection at the Biological Station in Itasca Park, or in collections at the University of Minnesota. Those species followed by a # are species where positive sight identification was made and those followed by a ⁰ are species on which the only available record that could be found appeared in the literature. Unmarked species are assumed to be present from Gunderson and Beer (1953).

Family Soricidae — Shrews

Sorex cinereus — Masked Shrew*

Sorex palustris — Water Shrew*

Sorex arcticus — Arctic Shrew*

Microsorex hoyi — Pygmy Shrew⁰

Blarina brevicauda — Short-tailed Shrew*

Family Talpidae — Moles

Condylura cristata — Star-nosed Mole*

Family Vespertilionidae — Vespertilionid Bats

Myotis lucifugus — Little Brown Bat*

Myotis keenii — Keen's Little Brown Bat⁰

Lasionycteris noctivagans — Silver-haired Bat*

Eptesicus fuscus — Big Brown Bat*

Lasiurus borealis — Red Bat

Lasiurus cinerus — Hoary Bat*

Family Leporidae — Hares and Rabbits

Sylvilagus floridanus — Cottontail Rabbit#

Lepus americanus — Snowshoe Rabbit*

Family Sciuridae — Squirrels

Tamias striatus—Eastern Chipmunk*

Eutamias minimus—Least Chipmunk*

Marmota monax — Woodchuck*

Spermophilus tridecemlineatus—Thirteen-lined Ground Squirrel*

Spermophilus franklinii — Franklin's Ground Squirrel*

Scirus carolinensis — Gray Squirrel*

Sciurus niger — Fox Squirrel⁰

Tamiasciurus hudsonicus—Red Squirrel*

Glaucomys volans — Southern Flying Squirrel⁰

Glaucomys sabrinus — Northern Flying Squirrel*

Family Geomyidae — Pocket Gopher

Geomys bursarius — Plains Pocket Gopher*

Family Castoridae — Beaver

Castor canadensis — Beaver*

Family Cricetidae — New World Rats and Mice

Peromyscus maniculatus — Deer Mouse*

Peromyscus leucopus — White-footed Mouse*

Clethrionomys gapperi — Gapper's Red-back Mouse*

Microtus pennsylvanicus — Meadow Vole*

Ondatra zibethicus — Muskrat#

Synaptomys cooperi — Southern Bog Lemming*

Family Muridae — Old World Rats and Mice

Mus musculus — House Mouse*

Family Zapodidae — Jumping Mice

Zapus hudsonicus — Meadow Jumping Mouse*

Napaeozapus insignis — Woodland Jumping Mouse*

Family Erethizontidae — New World Porcupines

Erethizon dorsatum — Porcupine*

Family Canidae — Canids

Canis latrans — Coyote#

Canis lupus — Gray Wolf

Vulpes fulva — Red Fox#

Urocyon cinereoargenteus — Gray Fox#

Family Ursidae — Bear

Ursus americanus — Black Bear#

Family Procyonidae — Procyonids

Procyon lotor — Raccoon*

Family Mustelidae — Mustelids

Mustela erminea — Ermine*

Mustela rixosa — Least Weasel

Mustela frenata — Long-tailed Weasel

Mustela vison — Mink*

Tavidae taxus — Badger*

Mephitis mephitis — Striped Skunk*

Lutra Canadensis — River Otter#

Family Felidae — Cats

Lynx rufus — Bobcat

Family Cervidae — Cervids

Dama virginiana—White-tailed Deer*

Alces alces — Moose*

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— *Department of Entomology and Economic Zoology, University of Minnesota, St. Paul, Minnesota.*

ANNUAL NORTH SHORE FIELD TRIP

The annual winter meeting of the Minnesota Ornithologists' Union and the Thunder Bay Field Naturalists' Club will be held February 20-21. This year's meeting will again be held in the Grand Marais High School.

The field trip will start at 8:00 a.m. from the J. K. Bronoel home, 2010 E. First Street, Duluth. The last stop before leaving Duluth will be at Lester River Bridge on London Road.

Reservations for the banquet should be made with Mrs. A. M. Fenstad, Grand Marais. Banquet tickets are $2.00. Hotel reservations at Grand Marais may be made at either the Shoreline or East Bay hotels. Remember that this is at the height of the skiing season, so hotel reservations should be made early. If you belong to a M.O.U. affiliate club, consult your local chairman for further details, or write to Mrs. Harvey Putnam, 1407 Woodland Avenue, Duluth, Minnesota. This year's program will be furnished by the Thunder Bay Field Naturalists' Club.

The Canadian Lakehead

by

A. E. Allin

The summer of 1959 was warmer than usual and the precipitation was greater than that normally received. The mean temperatures for July, August and September were 65.1°, 62.7° and 54.7° or 1.7°, 0.8° and 1.3° above average. July was wetter than usual, August was the second rainiest in history exceeded only by 1944. Precipitation in September was average. July and September were sunny but the 195 hours of sunshine in August compared unfavorably with an average for that month of 225 hours. There were a few scattered snow flurries in the latter half of October but we fortunately missed the terrific storms which beset the Canadian Prairies throughout the month.

On October 25, a skim of ice persisted all day on roadside pools and small beaver ponds. Although the White Birch and Aspens have lost their remaining leaves during the past week, the Willows are still green as are Lilacs, Apples and some White Elm in the cities. The ground is still colorful with the bright foliage of Bush Honeysuckle, Blueberries and Bunchberry. Five months ago, it was the delicate green of the newly-leaved Tamaracks which gave beauty to the swamp. Today they are again splendid with the dark green evergreens offsetting the new bronzed leaves of the deciduous conifer.

In view of the last frost occurring on May 17, in contrast to the average June 3, a heavy crop of fruit was expected. The Mountain Ash in the Lakehead Cities are laden with berries but there appears to be a scarcity throughout the forests. The crop of keys on the Manitoba Maples is very heavy and the samaras are equally abundant on the Black Ash. As usual, the ornamental Apples bear a heavy load of fruit.

July was a relatively uninteresting month. Numbers of ducks were present in Fort William Harbor. These included Common Goldeneyes, Mallards, Blue-winged Teal and Pintails as well as numbers of Ring-necks. A white-winged Scoter seen there on July 16 was a new summer record for the Canadian Lakehead. Most important was a report of a Woodcock nest with four eggs near Port Arthur. On June 25, George Whitefield reported four broods of young Woodcock near Kakabeka Falls and we confirmed the identity of the nesting birds. There have been only two or three previous records of Woodcock nesting locally.

Shore bird migration during July and August was almost non-existent. Mrs. Knowles reported Lesser Yellowlegs on July 11. David Allin saw one on the same date at Sibley Park but that was the only returning shore bird he saw there while acting as a park naturalist. Common Grackles were gathering in large flocks on July 22. Flocks of Chipping Sparrows were common along the roadsides by August 5. On the same date Eastern Kingbirds seemed unusually common. Mrs. R. M. Beckett reported a very heavy migration of the usual warblers and vireos on August 24. On August 29, she saw at least 2,000 "Blackbirds."

If early migration was poor, later migration was one of the best in many years. Both species and individuals were very common. Uncommon birds were reported; some species appeared early and others remained later than previous experience had led us to expect. Outstanding was the migration of shore birds.

Never have so many interesting species been reported and never have they remained so late. There is already evidence that we will experience a repeat flight of Hawk-Owls and Bohemian Waxwings.

Loons and Grebes: Only a few Horned Grebes were seen at Whitefish Lake. On October 10, one decoyed into our blocks and repeatedly gave a loud, weird call. It seemed confused by a lack of "reply" from the decoys. Finally it flew down the lake. On October 11, we saw a Red-necked Grebe in Chicago Bay, Cook County. This is not a common grebe in northeastern Minnesota.

Swans, Geese and Ducks: A Whistling Swan was reported on Pigeon Bay on October 4. It is difficult to explain the presence of these birds locally in the summer. Geese were reported on October 2, 7 and 10. These were all Canadas. On October 4, A. Barbini Jr. shot three Canadas, which "were the size of Mallards?" Probably they belonged to the race "*hutchinsi*." His father shot a White-fronted Goose on October 18. Although there are three spring records for this species, it had not previously been recorded in the fall. Ducks Unlimited reports that there was an unexpected major flight of Snow and Blue Geese through Manitoba. The flight probably split as J. Kerkoerle reports a heavy movement of these geese through Marathon on October 18, all flying south or southwest across the lake. He states the Canada Geese moved through the area from late September to mid-October.

Due to high water, the crop of Wild Rice at Whitefish Lake was a complete failure. The unusual storms in Manitoba may also have effected migration. Until the end of October scarcely a Mallard or Black Duck was seen. American Widgeons were reported as late as October 24. Shovelers were shot at Fort William Harbor on September 15, the first time these ducks have been seen here in the fall. Until recently they have been rare spring migrants but a few now occur regularly. Mr. Barbini reports a brood of young in July. No Redheads or Canvasbacks have been reported but Buffleheads and Common Goldeneyes appeared in their usual numbers. The White-winged Scoter is not a common migrant but this year they were present in large numbers at Whitefish Lake from October 18 to 25. Kerkoerle reports flocks at Marathon. All flights were in late afternoon and always due east. A Lesser Scaup in early September was unusual; as was a Greater Scaup on October 3, about two weeks earlier than we have previously seen it. Peculiarly, it is the only one we have seen this fall. The major flight of Ring-necked Ducks occurred at Whitefish Lake on October 10. The wind, generally from the south, shifted to the north at noon for 90 minutes and then reshifted to the south. During the brief period of north wind, these "Marsh Bluebills" passed through in great numbers. Probably less than usual remained for the remainder of the month on the lake. Lesser Scaup were unusually common from October 18 to 25.

Hawks and Eagles: Another season has passed without a fall hawk migration at the Canadian Lakehead being observed by local naturalists. But we have learned something. Mr. Barbini, who guides Lake Trout fishermen in Thunder Bay, informs us that the migration crosses Thunder Bay. This year the main flight of *Buteos* occurred as usual over Pie Island. He believes he saw 25,000 in a day, in a previous year. Dr. Philpott reported an October migration of Rough-legged Hawks over Silver Islet several years ago. Now Mr. Kerkoerle writes that a flight is notable at Marathon, flying in a westerly direction. The flight began early in September, increasing as the weather became cooler. On October 18, between 1:00 and 4:30 p.m. he saw 1,000 Rough-legged Hawks; 134 were seen on the morning of October 25. The wind was from the northeast.

Grouse, Partridges and Pheasants:

The occasional Ring-necked Pheasant persists. No Sharp-tailed Grouse has been reported. One must travel further and further from the cities to find Spruce Grouse. The Ruffed Grouse is quite abundant this fall. We first found them budding in the late afternoon of October 22, a very dull, wet day. The local status of the Gray Partridge is unchanged.

Cranes through Phalaropes: The American Coot was very common throughout October at Whitefish Lake. A phalarope was seen on Lake Superior on October 4. There is some doubt whether we get both Wilson's and Northern Phalaropes here in autumn. The shore bird migration this fall has been the highlight of migration despite its almost complete absence earlier. On September 13, we saw 175 American Golden Plover in flat fields near the airport. Unexpected was the association with them of five Black-bellied Plover. In the same area we recorded a Killdeer, two Dowitchers, with obviously long bills, six Lesser Yellowlegs, 100 Pectoral Sandpipers and eight Buff-breasted Sandpipers, a species reported locally once before. Pectoral Sandpipers, American Golden and Black-bellied Plovers remained throughout October. On October 22, K. Denis located a mixed group of 20 American Golden, 10 Black-bellied Plover, eight Pectoral and five White-rumped Sandpipers and one Red-backed Sandpiper. They were still present on October 28. R. Robb reported another flock of Black-bellied Plover and a Ruddy Turnstone on the 27th.

Mourning Doves: As noted in the last *Flicker*, this species nested for the second year in Paipoonge Township. A few were seen throughout the summer and early fall. The latest records were single birds seen in Paigoonge Township and in Fort William on October 12 and 19. We had seen another on October 11, north of Grand Marais.

Owls: It will be recalled that northwestern Ontario and northern Minnesota received a flight of Hawk-Owls in the winter of 1958-59. Schmid reported in the September *Flicker*, a Hawk-Owl in Beltrami County on July 14. Kerkoerle saw one at Marathon June 8, and subsequently throughout the summer. The Speirs noted one near Kakabeka Falls on September 3. Hawk-Owls were shot by grouse hunters on October 12, 23 and 25. To date no Snowy Owl has been seen.

Ruby-throated Hummingbird: One was seen on September 11 by Dorothy Allin although the minimum temperature the previous night fell to 30°.

Horned Larks: This species has never been common at the Lakehead though a few are usually seen each autumn and even fewer in the spring. There is no evidence the Prairie form breeds here. No spring larks have been taken. Those collected in the fall have been Hoyt's Horned Larks although we have seen larks on both spring and fall migration which we suspected belonged to the northern race. This fall Horned Larks were very common for two weeks, commencing September 27. A few were pale, suggesting "*hoyti*" but the majority seemed to belong to the Northern race. One found by H. Rydholm and another killed by a train and collected by T. Perrons, were identified as "*alpestris*" by L. L. Snyder of the Royal Ontario Museum. On October 11, on a trip to Grand Marais, numerous flocks of Horned Larks were seen feeding along the highway. The majority resembled the Northern race but a few seemed to be Hoyt's based on field observations.

Jays through Brown Creepers: Blue Jays were common; Gray Jays seemed to be present in their usual numbers. Common Crows were still present in large flocks on September 25. Common Ravens appeared about the same date. By mid-October few Common Crows remained but Common Ravens had become common. R. Robb reported a Boreal Chickadee and a late Brown Creeper in Fort William on October 27.

Mockingbirds through Water Pipits: As reported in the last *Flicker*, observers noted Mockingbirds in May at Ignace, Dryden and Atikokan (4). We now learn that five were seen during the same period in southern Manitoba and two at Sioux Lookout in western Ontario. Evidently there was a marked movement in the latter half of May, west of, but not including the Lakehead. Catbirds were killed in October at Atikokan and Dorion. Robins were usually abundant from September 21 through October. Their movement covered a large area. Flocks were still present October 25 at Marathon. Eastern Bluebirds were fairly common locally this year. Kerkoerle reports them increasing at Marathon. Numbers of Hermit Thrushes were killed when they struck obstructions this fall.

The Water Pipit is rather an uncommon spring and fall migrant. T. Perrons reported his train killed Water Pipits as well as Horned Larks and Lapland Longspurs west of Fort William on September 27. We had not previously considered trains as destructive to small birds. On October 3, we saw 50 Water Pipits. Two were still present at Whitefish Lake on October 24.

Waxwings through Warblers: The last Bohemian Waxwing was seen on April 25. R. Robb reported one on October 23 and we saw a flock of 30 on October 27. Starlings flocked into Fort William commencing October 4. They remain very common, with flocks of hundreds feeding on the Mountain Ash. Little of this fruit may remain for Bohemian Waxwings and Pine Grosbeaks. After the heavy vireo and warbler flights of early autumn, numbers of Palms, Tennessees and Myrtles remained into October. Myrtles remained common until October 17.

Blackbirds and Grackles: Common Grackles were common all fall, and last seen on October 17. West of English River we noted two great flocks of Rusty Blackbirds on August 31 but they were very scarce at Whitefish Lake where one was still present on October 24.

Grosbeaks through Crossbills: Mrs. Beckett noted the first Evening Grosbeaks on October 26. R. Robb reported two Pine Grosbeaks in Fort William, October 27. K. Denis found them in Eastern Rainy River District the same date. Kerkoerle saw four October 25, at Marathon. On the same date we saw thousands of Common Redpolls. We saw a large flock at Whitefish Lake on October 24. To date no crossbills have been reported.

Sparrows, Longspurs and Buntings: Slate-colored Juncos were common. Large number were seen September 27 and October 3. A few were still present on October 28. The flight of Harris' White-crowned and White-throated Sparrows was poor. A late Swamp Sparrow flew through our blind at Whitefish Lake on October 17. Lapland Longspurs appeared later than usual, the first being those T. Perrons saw killed by a train on September 27. We noted a few mingling with flocks of Horned Larks in Cook County on October 11. A flock was seen in Fort William, October 27, a late date. Snow Buntings appeared on October 11, gradually increasing for a week but then their number declined. They were present in maximum numbers on October 28. During this period numerous flocks were present along the highway, replacing the longspurs and Horned Larks which had fed in the same areas previously. — *Regional Laboratory, Ontario Department of Health, Fort William, Ontario.*

Notes of Interest

GROVE-BILLED ANI SPECIMEN TAKEN IN MINNESOTA — (*Editor's Note*: The following information was received from Dr. W. J. Breckenridge of The Museum of Natural History, University of Minnesota in a note received by him from Evard Berdan of Ortonville, Minnesota.) A friend of Mr. Berdan, who runs a mink farm near Ortonville, Big Stone County, found a bird, on September 17, 1959, in a box trap set for possible escapes from the mink pens. The bird appeared to be an odd "blackbird" of some sort when removed from the trap. The bird was taken to Mr. Berdan for identification. Mr. Berdan called Dr. Breckenridge, who readily identified the bird as a Grove-billed Ani. An attempt was made to keep the bird alive but it died while enroute to Minneapolis. The specimen was then delivered to the Museum of Natural History. This is the third record of the occurence of this species in Minnesota. The first specimen was taken at Red Wing, Goodhue County, on October 12, 1913. The second record is a specimen found dead by a farmer near Nassau, Lac qui Parle County, on October 20, 1958. (*Flicker*, Volume 31, Number 2, page 60.) — *Robert B. Janssen, 1817 W. 59th Street, Minneapolis, Minnesota.*

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IMMATURE MOCKINGBIRD AT DULUTH — An immature Mockingbird was caught in a mist net, banded, and released at the recreation area of Minnesota Point, St. Louis County, on August 28, 1959. This is the first record of an immature in the northern part of the state and strongly suggests a nesting of this species in this region. Two adults have been reported in the area this year, one in Duluth, St. Louis County, in early May by Mrs. T. Pappas, and one at Gooseberry State Park, Lake County, on May 31, 1959 by Gloria Peleaux. — *Robert R. Cohen, 719 E. 6th Street, Duluth, Minnesota.*

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PIGEON HAWK OBSERVED CAPTURING CHIMNEY SWIFT — On September 11, 1959, in the business area of Duluth, St. Louis County, a Pigeon Hawk was observed capturing a Chimney Swift. The hawk was noticed flying parallel to and above First Street at a height of approximately one hundred feet. I noticed a Chimney Swift flying at random directly in line with the flight of the hawk. The Pigeon Hawk, with a slight up-swoop, grabbed the swift in mid-air and glided off with the swift's wings flapping. — *Robert R. Cohen, 719 E. 6th Street, Duluth, Minnesota.*

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TUFTED TITMICE AGAIN SEEN IN THE DULUTH AREA — On September 24, 1959, at Hawk Hill, above central Duluth, St. Louis County, two small groups of Tufted Titmice were seen, presumably in migration. The titmice are not known to breed in this part of the state or anywhere north of this area. If these groups of titmice were following the normal route of chickadee migration, they would have come from the north. The groups consisted of five to six individuals and were moving through the brush and trees in the area. As the groups were seen at different times, approximately one-half hour apart, the possibility exists that there was but one group. The chickadee migration here, unusually prominent this fall, has been generally in one direction and continuous and I would guess this same migrational pattern would apply to the Tufted Titmice groups that I observed. — *Robert R. Cohen, 719 E. 6th Street, Duluth, Minnesota.*

RED-EYED VIREO AND LEAST FLYCATCHER OBSERVED IN JOINT FAMILY RELATIONSHIP — A slightly unusual situation of a late-nesting Red-eyed Vireo became an extremely unusual one when the apparent male of the family was found to be a Least Flycatcher. During the latter two weeks of July 1959 I observed a Red-eyed Vireo brooding on its nest in a small cedar grove in a semi-residential area of Duluth, St. Louis County. The nest was of the usual form and construction for that species and was hanging from a thin cedar limb approximately ten feet from the ground. The sound of very young Brown-headed Cowbirds emitted from the nest as I passed by on July 30. The next day I was astonished to see a Least Flycatcher, as well as the vireo, feeding young. The vireo was first noticed searching for food in the same cedar tree. The flycatcher flew to the tree close to the vireo, whereupon the vireo fluttered its wings, as if it wanted to be fed. The flycatcher then proceeded to the vireo nest and fed the young. The nest contained two young Brown-headed Cowbirds, unfeathered, and of course quite large for the nest. Immediately after the flycatcher left, the vireo came and fed the young. After a minute or two lapse, the flycatcher returned with additional food. Destruction of the nest, by an unknown cause, within the next three days prevented further studies of the situation, and left me only to guess how the situation may have turned out. — *Robert R. Cohen, 719 E. 6th Street, Duluth, Minnesota.*

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MIGRATIONAL MOVEMENT OF RING-BILLED GULLS — On Sunday, October 3, 1959, I witnessed a remarkable migration of Ring-billed Gulls at Lake Minnetonka, Hennepin County, where I live. The first wave of this migration passed directly over my home near the southeast tip of Carson's Bay at 8:45 a.m. The birds flew low over the house, only about 30 feet above the ground. They were readily discernible. As succeeding flocks of the gulls came from the northwest they moved southeastward wave after wave. The first birds were directly over me but those coming later were slightly farther to the northeast. Individual flocks of these gulls seemed to average about 100 birds. They moved along leisurely, rising and falling on the warm air currents. As the migration continued, flock after flock moved across my line of vision but each flock was always more removed to the northeast than the preceding flock.

In order to watch the birds better as the migrational front receded farther to the northeast I climbed on top of my house. With the aid of an 8 x 30 binoculars, I was able to view the horizon better and could see off in the distance about five miles over the Minnetonka woods as succeeding flocks of gulls came into view. Frequently a large flock of 100 or more would rise up several hundred feet into the air and spiral around in a leisurely fashion. The gulls continued to pass my line of vision until 9:40 a.m. Altogether, the migration took about 50 minutes to pass. I estimated that at least 10,000 Ring-billed Gulls were involved in this vast concourse. — *Arnold B. Erickson, Excelsior, Minnesota.*

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LEAST SANDPIPERS USE BUILDING AS FEEDING AREA — On August 17, 1959, while visiting a doctor's office in the Miracle Mile Shopping Center, Rochester, Olmsted County, I observed several small shore birds busily feeding in a shallow pool of water on a nearby roof. Further investigation revealed that there were three Least Sandpipers in one group and on another part of the roof there was a single Least Sandpiper. It was very interesting to see how these birds had adapted themselves to man-made "mud flats." — *Rev. Forest V. Strnad, Kasson, Minnesota.*

YELLOW-CROWNED NIGHT HERONS AT THE FISH HATCHERY POOL, ST. PAUL, RAMSEY COUNTY — Beginning about the middle of June, 1958, John Hall, who passes the fish pool twice daily observed among the Black-crowned Night Herons present, several birds with gray bodies and yellowish crowns. The sides of the head were black and the legs were longer than those of the Black-crowned Night Herons. On June 21, I spent over half an hour at the pool. Four of the five herons present were adult Black-crowned Night Herons. One, however, was very differently marked. Back, sides, under-parts, breast, and the lower part of the neck were dark gray. The upper neck and throat were light gray in color. The cheeks were dark, and the crown was white. The legs appeared to be longer than those of the nearby Black-crowned Night Herons. The bill was chunkier than the bills of the Black-crowned Night Herons. After looking at two Yellow-crowned Night Heron skins shown to me by Dr. Breckenridge at the Museum of Natural History, I am convinced that the two individuals observed by John Hall and the one bird I observed were Yellow-crowned Night Herons in some intermediate stage of plumage. Possibly, as Dr. Breckenridge suggested, they may have been adults in the post-nuptial plumage. — *A. C. Rosenwinkel, 398 Fairview Avenue N., St. Paul, Minnesota.*

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PRAIRIE FALCONS IN MAHNOMEN AND PENNINGTON COUNTIES — On August 15, 1959, Richard Oehlenschlager and I were driving on Minnesota Highway 113 approximately one mile west of Waubun, Mahnomen County, when we spotted a sandy-colored falcon about peregrine size. The bird was skimming swiftly about two feet above a stubble cornfield. The falcon turned and flew in front of the car, showing his black axillars. This, plus other characteristics, positively identified the bird as a Prairie Falcon. The bird circled over the car for a moment or two and then flew northward. We found a dirt road running northward and followed the bird. The falcon apparently sensed pursuit, because it continually gained altitude. Five miles north of our initial observation point, the bird had circled and climbed until it was a mere infinitesimal speck in the sky. At Ada, Norman County, we told Game Warden Martin Nelson about our sight record. He was surprised that we saw this falcon so early in the season. He said he usually sees one or two every fall in northwestern Norman County, on or about September 1. At St. Hilaire, Pennington County, on the same date, we observed another sandy-colored falcon, which we identified as another Prairie Falcon. This bird was also flying low over a stubble cornfield. After seeing these two Prairie Falcons, I was convinced that they were the same bird I saw on September 25, 1958 in Pipestone County, and Oehlenschlager was also convinced that it was the same species he saw last April near Nimrod, Wadena County. Other records for the Prairie Falcon in Minnesota are as follows: Swift County, winter, 1890-91; Traverse County, September 11, 1894; Lac qui Parle County, September 24, 1895; Pipestone County, November 1, 1930, November 27, 1930, August 23, 1931, October 8, 1925; Lyon County, October 29, 1926; Renville Cunty, August 30, 1922; Rock County, 1949 (Nesting, Mounds Springs State Park by Gunderson). — *Ronald L. Huber, 1231 N.E. 5th Street, Minneapolis, Minnesota.*

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LATE FALL DATE FOR THE CHIMNEY SWIFT — On October 17, 1959, while driving along County Highway No. 18 in the Purgatory Creek area, Hennepin County, I noted a single Chimney Swift flying over the road. Roberts in "The Birds of Minnesota" lists October 5 as the latest date for this species in the Twin City area. The latest date listed for the state is October 26 at Itasca State Park. This date is considered to be an exceptionally late date. — *Robert B. Janssen, 1817 W. 59th Street, Minneapolis, Minnesota.*

RING-BILLED GULL ABUNDANCE — Several interesting reports have been received, in addition to Arnold Erickson's report contained above, concerning the abundance of Ring-billed Gulls in Minnesota this fall. One report received from Dwain Warner of the Museum of Natural History stated that hundreds of Ring-billed Gulls plus a few Franklin's Gulls were seen along the highways between Thief River Falls, Pennington County, and Minneapolis, Hennepin County, on October 8, 1959. The birds were seen throughout the day, in the air and standing on the road and on the shoulder of the road. The birds were seen well after dark as they flew in front of the car and became visible in the headlights. I witnessed the same abundance of Ring-billed Gulls and Franklin's Gulls while driving between Willmar, Kandiyohi County and Rothsay, Wilkin County, on October 9, 1959. The Ring-billed Gulls far outnumbered the Franklin's and they were also seen standing on the road and shoulder of the road. The abundance of these birds seemed very out of place in this semi-prairie area. The Franklin's Gulls seen were mainly found in the recently plowed fields or on the small sloughs found along the road. Two small water areas near Fergus Falls, Otter Tail County, contained large numbers of Ring-billed Gulls, one, approximately three to four acres in extent contained at least 1,000 of the birds. No accurate count of the gulls seen throughout the day could be kept but they certainly numbered in the many thousands. — *Robert B. Janssen, 1817 W. 59th Street, Minneapolis, Minnesota.*

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KENTUCKY WARBLER IN TWIN CITY AREA — On August 29, 1959 Brother Theodore was birdwatching in a small woods near the intersection of Highway 12, just north of a gravel pit west of Minneapolis, Hennepin County. On that day he observed a Black-throated Blue Warbler that was in transition from spring to fall plumage. He also observed a Connecticut Warbler in fall plumage.

On September 6, Brother Theodore showed this area to me with hopes that some warblers might still linger there. An Ovenbird, Red-eyed Vireo, Brown Thrasher, Swainson's Thrush, and American Redstart were seen, at about noon. Things were very quiet and we wondered if we would continue. Suddenly a small warbler flew up from the waist-high Jewel Weed (*Impatien biflora*) and sat on a dead twig about six feet in front of us. The head pattern was exactly like the spring plumage except that black markings were not as intense. The bird was unmistakably a Kentucky Warbler.

In May, August, and September of 1958, Richard Oehlenschlager saw what he believes were Kentucky Warblers in Wadena County, near Nimrod. This is considerably beyond the general periphery of their range, but a collected specimen from that area would verify the report. Other Minnesota records for the Kentucky Warbler are: July 1952, Winona County, Brother Theodore (this is the first record for the state); May 22, 1956, Minneapolis, Hennepin County, Ray Glassel; May 17-18, 1958, Whitewater State Park, Winona County, by M.O.U. members. — *Ronald L. Huber, 1231 N.E. 5th Street, Minneapolis, Minnesota.*

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WHITE PELICAN DATES — Few fall dates have been recorded for the White Pelican in Minnesota. Roberts in "The Birds of Minnesota" lists only the following late fall dates: October 3, 1907, Heron Lake, Jackson County and October 19, 1930, Herman, Grant County. I observed a single White Pelican on a small slough just north of Pennock, Kandiyohi County, on October 11, 1959. Two other individuals were seen circling over the town of Atwater, Kandiyohi County, on October 24, 1959. — *Robert B. Janssen, 1817 W. 59th Street, Minneapolis, Minnesota.*

SPRAGUE'S PIPIT SEEN IN ROCK COUNTY — Seventy-six species of birds were seen on a Minneapolis to Rock County trip on September 7, 1959. The notable species included a White Pelican at Lac qui Parle Lake, Lac qui Parle County, Blue and Snow Geese and Black-bellied Plovers at Salt Lake, Lac qui Parle County and seven Swainson's Hawks in Rock and Pipestone Counties. We also saw a Short-eared Owl in Pipestone County, and to add interest to the trip we saw seven Coyotes at Mound Springs State Park, Rock County.

By far the best part of the trip was in Rock County approximately four miles southeast of the town of Jasper. We were on an unidentified county road, heading north, when a flock of small birds circled and landed in a freshly plowed field. The flock consisted of approximately 75 Horned Larks, however, we noted that several of the birds were smaller and had striped backs. When these birds approached the Horned Larks they were immediately chased away. We suspected that the birds were Sprague's Pipits. One of the birds flew off into a grassy area adjacent to the plowed field. At this same time two shore birds flew into the field in view of our twenty power spotting scope. The birds were Buff-breasted Sandpipers. The smaller bird was then positively identified as a Sprague's Pipit. As the bird took flight it called its typical "pip-it" call. There were two additional pipits mixed in with the Horned Larks. — *Ronald L. Huber, 1231 N.E. 5th Street, Minneapolis, Minnesota.*

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BEWICK'S WREN IN HOUSTON COUNTY — On September 12, 1959 while in Houston County with Ray Glassel and Harding Huber, I observed a single Bewick's Wren. We had stopped in the small town of Reno, Houston County and walked out on a spillway which led into a marshy area. We heard a high speed chatter, like a rapid House Wren. The bird was found about 15 feet away in a low bush. It was a long-tailed wren with a white eye stripe and no rusty on the sides. We studied the bird for another ten minutes until it spread its tail feathers slightly, allowing us to see the white in the outer corners and verify our identification. As we moved nearer, the bird flew up into a small nearby tree where it paused for a moment and then flew toward the highway. We did not see the wren again. Other interesting observations were a melanistic Gray Squirrel just west of Reno, a male Ring-necked Duck on a pond at Whitewater Park, Winona County and hundreds of migrating Rose-breasted Grosbeaks between Reno and Caledonia, Fillmore County. — *Ronald L. Huber, 1231 N.E. 5th Street, Minneapolis, Minnesota.*

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THE GREAT GRAY OWL AND INDIGO BUNTING AT BASSWOOD LAKE, LAKE COUNTY, MINNESOTA[1] — On July 17, 1959 a Great Gray Owl was flushed in a heavy stand of Red Pine near the mouth of Frog Bay on Basswood Lake. It flew about 100 feet and landed on a limb where it was approached and observed for several minutes. The following day, presumably the same owl was again flushed and observed at close range. Its large size, soft flight and face and breast markings made identification easy. During July, 1958 a pair of Indigo Buntings was observed numerous times in the open pine plantation on the grounds of the Quetico-Superior Wilderness Research Center. Their behavior indicated that they had a nest nearby but I was unable to find it. On July 20, 1959 a male Indigo Bunting was seen in the same area. The above observations were made possible through the courtesy of the Quetico-Superior Wilderness Research Center. — *James R. Beer, Department of Entomology and Economic Zoology, University of Minnesota, St. Paul, Minnesota.*

1/Paper No. 1028 Misc. Journal Series, Minnesota Agricultural Experiment Station, St. Paul 1, Minnesota.

WHIMBREL AND JAEGER ON MINNESOTA POINT, ST. LOUIS COUNTY — On September 19, 1959 Robert Janssen, Brother Theodore, Harding Huber and I were in Duluth, St. Louis County, to observe the hawk flight. As we entered Duluth from Fond du Lac, St. Louis County, we observed a Piegon Hawk flying over and another perched on a telephone pole. At Chester Park, in Duluth, we saw Tennessee, Nashville, Bay-breasted and Chestnut-sided Warblers, and Solitary, Red-eyed and Philadelphia Vireos. On Minneosta Point, St. Louis County, we observed Golden and Black-bellied Plover in a mixed flock in a grassy area near the amusement park. On the beach we saw several Sanderlings and Semipalmated Plovers. As we were observing these shore birds, a curlew flew onto the beach. It lacked the spring plumage head-striping, but it was clearly a Whimbrel (Hudsonian Curlew). This was not far from where I observed Whimbrels and Long-billed Curlews on May 24, 1958. The Long-billed had been in the dry, sandy airfield across from the amusement park, while the two Whimbrels had been seen on Harbor Island. As we observed the Whimbrel a jaeger flew by. The bird was flying rapidly and we had a very short time for observation. It was some distance off shore and as a result we were not able to identify it as to exact species. It flew past a lighthouse on a break water and disappeared. We were unable to find it later. In the meantime, the Whimbrel was walking quietly around on the beach. The bird finally took flight, uttering his characteristic ku-ku-ku-ku-ku-ku flight notes quite rapidly. — *Ronald L. Huber, 1231 N.E. 5th Street, Minneapolis, Minnesota.*

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SANDHILL CRANES IN ROSEAU COUNTY — (*Editor's Note*: The following information was received from Mr. Jensen in response to an inquiry on the status of Sandhill Cranes nesting in Minnesota.) At present (October 2, 1959) there is an estimated flock of about 1,000 of these big birds (Sandhill Cranes) using the Roseau River Refuge and the surrounding farmers' fields. Nesting has been observed within and outside the area, mainly in the north half of Roseau County. They are not too well received by the local farmers as they cause much destruction to their grain fields. What they don't eat they tramp into the mud with their big feet. They are interesting birds and I have watched their mating dance which is a show in itself. They fly very high on their migration flight and in the spring they can be heard before they are seen. They sound, to me, like one of the old fashioned coffee grinders they used to use when I was a small boy, a very rasping call. They are very wary birds and usually leave on the first day of the waterfowl season. — *Jack R. Jensen, Manager, Roseau River Refuge, Pine Creek, Minnesota.*

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HOUSE WRENS USE SNAKE SKINS AS NESTING MATERIAL — On June 26, 1959, when I investigated the nesting boxes on my Bluebird Trail, near Kasson, Dodge County, I found that a pair of House Wrens, using box number 20, incorporated the skin of a Garter Snake into their nest. The nest contained seven eggs of the House Wren. On July 4, 1959 while checking more nesting boxes, which contained nesting House Wrens, I found boxes number 10 and number 15 also contained snakeskins incorporated within the usual nesting material of the House Wren. House number 10 contained six eggs. Five young were fledged from this nest. They were banded on July 28. House number 15 contained five eggs when first investigated. On July 15 when I checked this box I found the lid was knocked off and the eggs were gone. The habit of using a snakeskin as nesting material is well documented in the case of the Great Crested Flycatcher but it seems rather unusual for a species such as the House Wren. — *Rev. Forest V. Strnad, Kasson, Minnesota.*

ADDITIONS TO THE GOOSEBERRY STATE PARK LIST — Most checklists soon become out of date after they are published. The "Checklist, Birds of Gooseberry Falls State Park" (Hofslund, 1957, Mimeo) is no exception. The following birds have been added to this list during 1958 and 1959: Red-necked Grebe, migrant; Greater Yellowlegs, summer visitor; Yellow-billed Cuckoo, summer resident (1959); Mockingbird, rare (Gloria Peleaux, May 31, 1959); Baltimore Oriole, migrant; Bobolink, migrant (Gloria Peleaux); Western Meadowlark, nesting; Evening Grosbeak, summer visitor (Gloria Peleaux); Rufous-sided Towhee, summer resident (?); White-winged Crossbill, nest (1958 ?); Red Crossbill, summer visitor (Dwain Warner). — *P. B. Hofslund, Biology Department, University of Minnesota, Duluth, Duluth, Minnesota.*

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YELLOW-SHAFTED FLICKER MORTALITY — On April 15, 1959 Frank Andruski, the caretaker of North Commons Park, Minneapolis, Hennepin County, called the University of Minnesota, Museum of Natural History to report a number of dead Yellow-shafted Flickers he had found in the park. The previous day he had found four dead flickers which he burned. The morning of the 15th he found ten more and at noon two additional birds. One of these had been decapitated by some scavanger and from its condition was thought to have died the previous day. The morning of the 16th three additional birds were found dead, one of which was saved for the museum. The last reported dead flicker was found April 21 at which time a robin was also found dead. A total of 20 flickers were found.

Most of the birds were found under trees, few immediately against the base of the trunk, others out farther, within the circumference of the branches. An occasional bird was found on the lawn away from trees. The park has low hills covered with an open stand of oaks and extensive lawn areas. In mid-April 1959, the lawns were dry and very hard. Andruski said the birds fed both out on the lawns and in the trees. Starlings, Common Grackles, Robins, and Slate-colored Juncos were common, feeding on the lawns and one Brown Creeper was seen in the trees as well as Myrtle Warblers. However, the only bird found dead other than the flickers was a single Robin.

The Minnesota State Public Health laboratory at the University of Minnesota examined four of the birds and could find no indication of a cause of death. The University of Minnesota Medical School Department of Bacteriology and Immunology innoculated suspensions of heart liner and spleen from three of the birds found dead April 15 intercerebrally into weanlry mice. They reported no specific mouse deaths or illnesses during 14 days of observation, which rules infection by viruses of Western equine and St. Louis encephalitis. All specimens examined at the museum were in apparently good physical condition, moderate to rather fat and with no obvious bruises or hemorrhages. — *Robert W. Dickerman, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*

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EDITOR'S NOTE: It is requested that persons keeping records concerning migration dates on various species of birds submit these dates and information for inclusion in future issues of *The Flicker,* Notes of Interest section. With the index appearing in this issue, these dates will become more important and useful to readers of this publication.

BOOK REVIEW

THE BIRDS, Oskar and Katharina Heinroth. University of Michigan Press, Ann Arbor, Michgian, 1958, 181 pp. $5.

In a period when bird books are published at a rate equal to, or greater than the rate of test firing of rockets, it is a rare one, as in the case of the rockets, that reaches its goal and makes a real contribution. *The Birds*, a small (181 pages) pocket-sized, disorganized, and completely enchanting book does make the grade. Its 22 chapters (one only one page long) presents facts on avian natural history that were accumulated by the Heinroths over years of study of living birds in the Berlin Zoo and throughout Europe. This is a book written by people obviously fascinated with their subject, but with a sound understanding of biology (a striking contrast to so many of the popular style bird books). Each chapter from its informal title such as: What Is a Bird, Who Looks After the Young, Is the Size of a Bird Related to the Size of Its Eggs, or Keeping Clean, etc. is filled with a wealth of well-presented information, often anecdotal and occasionally anthropomorphic.

The general approach is one of comparative behavior, and morphology or structure. We learn: the stage of development of young on hatching is dependent on the length of the incubation period. Helpless song bird young hatch in about 12-14 days, whereas young covered with down as the young of waterfowl and raptors take twice as long. Few birds recognize their own eggs, yet can identify their own young even from large groups of young as in colonial nesting species. A healthy Mallard has a specific gravity of .65, and so floats high and dry within its waterproof feathers. A sick Mallard that has lost its waterproofing has a specific gravity of .95 barely enough to keep it afloat. When tree birds are on the ground they usually retain the hopping gait suitable for movement through branches. Excellent flyers, the swifts find it almost impossible to walk.

The enjoyable informal method of presentation makes the book ideal for casual reading as well as valuable for information of many facets of bird life. Chapter 12 on mating season will tickle most readers for its human approach to the subject, complete to suggesting a method of telling whether a usually faithful female Rock Dove "has strayed from virtue."

The largest drawback to *The Birds* is its relatively high cost, $5, but at 2.7 cents a page this book ranks as a bargain when compared to the majority of the current crop of birds books. It can and should be profitably read by all who find the study of birds a rewarding avocation or occupation. — *Robert W. Dickerman, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*

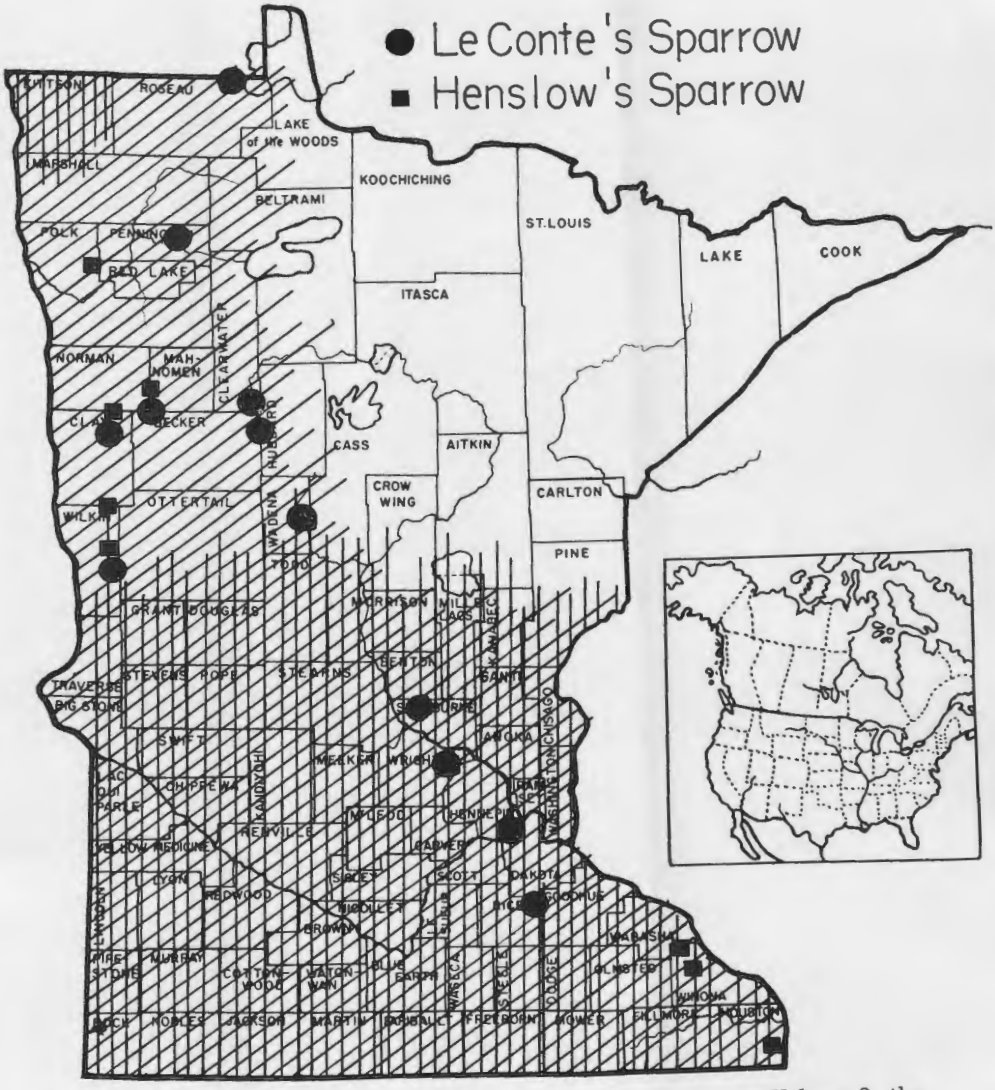
CORRECTION

Volume 31, Number 3, page 88, the name Donald V. Gray should be substituted for that of Dr. William Greene as refuge manager of the Upper Mississippi River Wildlife and Fish Refuge with offices located in Winona, Minnesota.

Editor's Note: As an addition to the article "How to Mist Net Birds," by Gary C. Kuyava appearing in Volume 31, Number 3, it should have been stated that this paper first appeared in Volume 31, Number 3 of the "Inland Bird Banding News."

INDEX TO VOLUME 31

Breeding Distribution of Henslow's and LeConte's Sparrows



In 1932 Thomas Roberts described in *The Birds of Minnesota,* Volume 2, the then known general breeding ranges of the Henslow's Sparrow (vertical lines) and LeConte's Sparrow (diagonal lines) essentially as on the map. Among the thousands of observations on birds of Minnesota received by the Minnesota Museum of Natural History or made by its staff since that date there are only the few observations indicated by the dots and squares. These represent breeding season records only. — *D. W. Warner, Museum of Natural History, University of Minnesota, Minneapolis, Minnesota.*