

THE FLICKER

VOLUME 17

MARCH, 1945

NUMBER 1



Published Quarterly by

THE

MINNESOTA ORNITHOLOGISTS' UNION

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, May, October and December

Edited by Arnold B. Erickson, University of Minnesota

Minneapolis, Minnesota

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Dues for all members, \$1.00 per annum, should be paid in advance to the secretary-treasurer.

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Notes on the Bird-Life at Camp Barkeley, Texas

by

Kenneth D. Carlander

Soldiers frequently complain about the full field packs, mess gear, entrenching tools, canteens, and sundry items of equipment that must be carried on the marches. I found, however, that the addition of a pair of field glasses, a camera, and a couple of bird guides to the usual field equipment made my basic army training more enjoyable than it might otherwise have been. The 10-, 15-, or 25-mile marches took on some of the characteristics of bird-hikes, and the bivouacs became extended field trips.

As a bird-lover, I found the area around Camp Barkeley, Texas, of particular interest. The bird population included a number of western and a number of eastern species. Neither western nor eastern bird guides were entirely adequate in this area. I was particularly interested in comparing the bird-life of the Camp Barkeley region with that around Amarillo, Texas, about 200 miles north, where I had made observations during the summers of 1932 to 1935.

Camp Barkeley, in Taylor County, Texas, is about 13 miles southwest of Abilene and about 160 miles southwest of Fort Worth. I was stationed at the camp from July 21 to December 17, 1944. Since I was in the region

not as an ornithologist, but as an army private taking medical corps basic training, my bird observations were more or less incidental.

There are 3 major biotic communities in the area: a mesquite-short-grass prairie, a juniper-scrub-oak chaparral, and a flood-plain forest. The camp proper is located in the prairie community, and this community extends for many miles to the north at elevations from 1600 to 2000 feet. A couple of miles south of camp, the ground rises abruptly to an extensive range of hills, 2400 to 2600 feet in elevation. At about 2000 feet the chaparral community replaces the prairie community. Along the streams, most of which were dry much of the time, flood-plain forests were quite well developed.

The mesquite-short-grass community was quite open, with the mesquite trees, *Prosopis juliflora*, widely separated in most areas. Mesquite trees were taller and more vigorous in growth than I have seen in the Panhandle of Texas or elsewhere. Some were 15 to 20 feet high and had trunks 4 to 8 inches in diameter. In some localities about one-half of the mesquite trees were infested with mistletoe, *Phoradendron flavescens*. The foliage in the

mistletoe was much denser than that of the mesquite, and apparently the birds frequently use the additional cover, for I found many old nests in clumps of mistletoe. Mistletoe also infected elm trees along the streams. Agarita or chaparral berry, *Berberis trifoliolata*, a bush with leaves like a small holly, was fairly common under the mesquite. The most common and characteristic flowering plants were: purple nightshade, *Solanum elaeagnifolium* and *S. torreyi*; sow thistle, *Sonchus asper*; blue thistle, *Eryngium* sp.; Spanish bayonet, *Yucca* sp.; a small sunflower, *Helianthus* sp.; white prickly poppy, *Argemone alba*; prairie lily, *Cooperia* sp.; and snow-on-the-mountain, *Euphorbia marginata*. There were a number of species of small cacti, but the only common one was the prickly pear, *Opuntia lindheimeri*. Lizards were fairly common with horned toads and striped racers as the principal types. Rattlesnakes are reportedly quite common, but the only snakes which I saw were two identified as a blue racer and a gopher snake. Jack rabbits were not very common and I saw no ground squirrels or gophers. I found one occupied prairie-dog town with accompanying burrowing owls. The most characteristic birds in the prairie community were lark sparrows, horned larks, scissor-tailed flycatchers, white-rumped shrikes, and mockingbirds.

The shrub cover in the chaparral community was quite dense. Juniper (*Juniperus monosperma* and *J. mexicana*, I believe) was the most common tree, particularly in the zone where the chaparral and prairie communities joined. Scrub-oak thickets were quite abundant, and the principal species were the blue jack, *Quercus cinerea*; live oak, *Q. virginiana*; and Texas oak, *Q. texana*. Few of the oaks reach a height of 20 feet. Sumac, *Rhus* sp., was

not very abundant, but individual plants showed up vividly when they turned scarlet in early fall. The most characteristic herbs included the milkweed, *Asclepias* sp.; cow-itch vine, *Cissus incisa*; *Coreopsis* sp.; and black-eyed susan, *Rudbeckia bicolor*. Armadillos, opossums, and striped skunks were the only mammals I saw in this community. The most characteristic birds were cardinals, pyrrhuloxia or Mexican cardinals, roadrunner, western goldfinch, Cassin's sparrow, Brewer's sparrow, blue grosbeak, and rock wren. In the fall, there were large numbers of migrating birds including western bluebirds, Texas jays, juncos, spotted towhees, yellow-shafted and red-shafted flickers, and robins.

The flood plain forest was composed primarily of elm, *Ulmus americanus*; hackberry, *Celtis americanus*; pecan, *Hicoria pecan*; and post oak, *Quercus stellata*. I saw no cottonwood such as is common along streams in the Panhandle. The herbaceous growth was quite robust and included nettles, jimsonweed, *Datura meteloides*; and cardinal flower, *Lobelia splendens*. Vines were particularly abundant and I noticed the following species: wild ground, *Cucurbita foetidissima*; cow itch vine, *Cissus incisa*; thorn brier, *Smilax* sp.; and *Clematis* sp. The only mammals that I saw were a couple of cottontail rabbits. Three small lizards collected in this community and sent to Cornell University were identified as *Phrynosoma cornutum*, *Sceloporus spinosus*, and *S. undulatus*. The most characteristic birds were gray and Sennett's titmice, cardinal, alder flycatcher, flickers, and Texas woodpeckers.

Most of the streams were dry, but there was some water, mostly in holes, in Elm Creek. Some of these holes had a good growth of pondweeds, *Potamogeton* sp.; sedges, *Carex* sp.; and water cress. There were a number of small

brown frogs, a few large bull frogs in some of these holes. I also saw some crayfish, snails, and mayfly larvae, but in general the aquatic life was pretty sparse. Almost all of the ponds had top minnows, *Gambusia paternalis*, the species used for mosquito-control work. In one pond, I saw three species of cyprinid minnows, a sunfish, and some catfish, but I was unable to catch any. A few green herons were seen along the ponds.

In each of the three communities, there were occasional small ponds, or "tanks" as they are called in the area. These "tanks" were usually less than one-fourth acre in size and two feet in depth. Most of them were formed by damming small ravines. They were usually muddy and quite devoid of aquatic life. The vegetation around them did not differ from that of the immediately surrounding community. Killdeers were frequently seen about these "tanks."

An annotated list of the birds seen from July 21 to December 17, 1944, follows: The subspecific determinations were based merely upon probable ranges, as given in the R. T. Peterson guides, and therefore may not in all cases be accurate.

1. **GREAT BLUE HERON.** One seen Sept. 16.
2. **GREEN HERON.** Occasional along streams and around the more permanent tanks. Aug. 15 - Sept. 15.
3. **CANADA GOOSE.** Several flocks, Oct. 28 - Dec. 1.
4. **PINTAIL.** One flock, Nov. 22.
5. **TURKEY VULTURE.** Common, July 21 - Dec. 17.
6. **BLACK VULTURE.** One seen Nov. 25. Not found in the Panhandle.
7. **COOPER'S HAWK.** Nov. 23.
8. **SHARP-SHINNED HAWK.** Fairly common, Oct. 7 - Dec. 1.

9. **WESTERN RED-TAILED HAWK.** Fairly common, Sept. 2 - Dec. 17.
10. **SWAINSON'S HAWK.** A few seen, Oct. 20 - Dec. 15.
11. **FERRUGINOUS ROUGH - LEGGED HAWK.** Oct. 24.
12. **MARSH HAWK.** The most common hawk, Sept. 2 - Dec. 15.
13. **PRAIRIE FALCON.** Sept. 28.
14. **DESERT SPARROW HAWK.** Fairly common, Aug. 13 - Dec. 16.
15. **SCALED QUAIL.** Fairly common, Aug. 14 - Sept. 15.
16. **MOUNTAIN PLOVER.** Prairie community, Aug. 12-28.
17. **KILLDEER.** Fairly common in prairie community and around ponds. July 21 - Nov. 20.
18. **LONG-BILLED CURLEW.** A few seen, Aug. 15 - Sept. 13.
19. **LESSER YELLOWLEGS.** A few around ponds, Aug. 15 - 30.
20. **FRANKLIN'S GULL.** Common, Oct. 8 - 25.
21. **WESTERN MOURNING DOVE.** Common, Aug. 6-Dec. 3.
22. **ROADRUNNER.** One of the most interesting birds of the chaparral and occasionally the prairie communities. Aug. 12 - Oct. 20. One day while I lay under a tree reading, I looked up to see a roadrunner about 15 feet away. The bird was very obviously curious as to what I was doing. By moving slowly and deliberately I took 2 or 3 pictures while the roadrunner was 10 to 15 feet away. The blue and orange skin patches were very obvious when the roadrunner raised the feathers on his head while "on the alert."
23. **WESTERN HORNED OWL.** Chaparral community, Oct. 17.
24. **WESTERN BURROWING OWL.** Fairly common, prairie community, Sept. 3 - Dec. 14.

25. **SENNETT'S NIGHTHAWK.** Common, July 21 - Sept. 30.
26. **YELLOW - SHAFTED FLICKER.** Not uncommon in chaparral and flood-plain communities, Sept. 15 - Dec. 10.
27. **RED-SHAFTED FLICKER.** About equal in abundance with the "yellow hammer." Oct. 3 - Dec. 10.
28. **RED-NAPED SAPSUCKER.** Fairly common in flood-plain in mid-November.
29. **TEXAS WOODPECKER.** Flood plain, Nov. 18.
30. **ARKANSAS KINGBIRD.** Not very common, Aug. 24 - Sept. 16.
31. **SCISSOR-TAILED FLYCATCHER** Common, July 21 - Oct. 10. More common than in the Panhandle.
32. **EASTERN PHOEBE.** Fairly common, Oct. 18 - Nov. 28, in chaparral and flood plain.
33. **ALDER FLYCATCHER.** Fairly common in all communities, Aug. 29-Oct. 1.
34. **WESTERN WOOD PEWEE.** Chaparral, Aug. 24.
35. **OLIVE - SIDED FLYCATCHER.** Flood plain, Aug. 28.
36. **DESERT HORNED LARK.** Fairly common in prairie community but not as common as it is in the Panhandle. July 21 - Dec. 17.
37. **BLUE JAY.** Fairly common in chaparral, Oct. 13 - Dec. 1.
38. **TEXAS JAY.** Common in chaparral, Oct. 15 - Dec. 1. I vote for this jay as one of the most beautiful birds in America.
39. **WHITE-NECKED RAVEN.** Fairly common, Aug. 6 - Dec. 16.
40. **CROW.** Some seen in September. Although this area appears to be out of the normal range of this species (Peterson's Field Guide to Western Birds, 1941), I am quite certain of the identification.
41. **GRAY TITMOUSE.** Not uncommon in flood plain, Aug. 5 - Dec. 2.
42. **SENNETT'S TITMOUSE.** Common in flood plain and chaparral communities, Sept. 2 - Dec. 3. This species was not found in the Panhandle.
43. **BEWICK'S WREN.** Fairly common, Aug. 19 - Dec. 2. The song-sparrow-like song was frequently heard.
44. **ROCK WREN.** Chaparral, Aug. 17.
45. **MOCKING BIRD.** Common, July 21 - Dec. 17.
46. **ROBIN.** Common in chaparral, Oct. 19-Dec. 15. Not a summer resident. I believe that both eastern and western subspecies were present.
47. **HERMIT THRUSH.** Chaparral, Nov. 26.
48. **WOOD THRUSH.** Chaparral, Nov. 24.
49. **CHESTNUT - BACKED BLUE-BIRD.** Common in November in chaparral. Peterson (1941) mentions only call notes for this species, but the songs I heard were very similar to those of the eastern bluebird.
50. **GOLDEN - CROWNED KINGLET.** Common in chaparral and flood plain, Nov. 14 - Dec. 4.
51. **EASTERN RUBY - CROWNED KINGLET.** A few seen with the flocks of golden-crowns, Nov. 22.
52. **CEDAR WAXWING.** Fairly common in chaparral and flood plain, Nov. 20 - Dec. 3.
53. **WHITE-RUMPED SHRIKE.** Fairly common in prairie, Aug. 14 - Oct. 15.
54. **MYRTLE WARBLER.** Common in chaparral and flood plain, Nov. 12-30.
55. **PINE WARBLER.** Chaparral, Nov. 14.
56. **WESTERN PALM WARBLER.** Chaparral, Oct. 22.
57. **WESTERN YELLOWTHROAT.** Flood plain, Nov. 18.

58. **ENGLISH SPARROW.** Common near habitations, July 21 - Dec. 17.
59. **WESTERN MEADOWLARK.** Common in prairie, Oct. 8 - Dec. 17. Not a summer resident as it is in the Panhandle.
60. **RED-WINGED BLACKBIRD.** Not common but some migrants seen in November.
61. **BULLOCK'S ORIOLE.** Fairly common on prairie, Aug. 15-30.
62. **BRONZED GRACKLE.** Some migrants, Nov. 13 - Dec. 1.
63. **COWBIRD.** Fairly common, Sept. 15 - Dec. 17.
64. **CARDINAL.** Quite common. In the prairie community it is seen only occasionally however. Aug. 5 - Dec. 10.
65. **PYRRHULOXIA.** Quite common, particularly in the chaparral, Aug. 23-Dec. 4.
66. **WESTERN BLUE GROSBEAK.** Chaparral, Aug. 23.
67. **HOUSE FINCH.** Occasional in prairie and chaparral, Sept. 2 - Dec. 2.
68. **ARKANSAS GOLDFINCH.** Fairly common, all communities, Aug. 15 - Dec. 17.
69. **SPOTTED TOWHEE.** Fairly common in chaparral, Oct. 7 - Dec. 1.
70. **GREEN-TAILED TOWHEE.** Chaparral, Aug. 23.
71. **CANON TOWHEE.** Chaparral, Aug. 23.
72. **WESTERN GRASSHOPPER SPARROW.** Fairly common on prairies, Aug. 14 - Dec. 2.
73. **WESTERN LARK SPARROW.** Common, July 21 - Dec. 10.
74. **ROCK SPARROW.** Fairly common in chaparral, Oct. 30 - Dec. 1.
75. **CASSIN'S SPARROW.** Fairly common on prairie, Aug. 15 - Dec. 1.
76. **SLATE-COLORED JUNCO.** Common in chaparral in November.
77. **CLAY-COLORED SPARROW.** Fairly common in chaparral and prairie in November.
78. **BREWER'S SPARROW.** Common in chaparral, Aug. 28 - Dec. 15.
79. **WHITE-CROWNED SPARROW.** One seen in chaparral, Nov. 18.
80. **SONG SPARROW.** One seen in chaparral, Nov. 18.

Minneapolis, Minnesota

A Bird Protection Committee of the M. O. U. was recently appointed by our president, Miss Mary I. Elwell. At the present time the committee consists of three members—Mr. Ken Morrison, Dr. W. J. Breckenridge, and Miss Severena Holmberg. Two more members will be added later.

During the past two months the committee has been instrumental in calling to the attention of the State Legislature the great need for the protection of hawks and owls. Their work has been so sincere and convincing that protection has been accorded all hawks and owls with the exception of the goshawk, Cooper's hawk, sharp-shinned hawk, and the great horned owl, in the new Game and Fish Code that was recently signed by the Governor.

Bird lovers, conservationists, and farmers owe a debt of gratitude to the Bird Protection Committee for its splendid work.

Natural History Notes from the Aleutians - Part I

by

Marius Morse

April 9, 1944. Today Don Smith and I made a short biological trip into the mountains near Finger Bay on Adak Island. We encountered five species of birds: bald eagle, song sparrow, ptarmigan, snow bunting and Hepburn's rosy finch.

The ptarmigan, all white except for small brown patches of feathers on the neck and the dark tail feathers, was seated on a small area of exposed herbaceous vegetation surrounded by snow banks at an altitude of about 1000 feet. The bird flushed at seven yards and flew (ducking) across a ravine to a spot out of sight. We examined the fresh droppings that it left and found small black seeds and leaves of an Ericaceae among many fibers. We saw several tracks of ptarmigan in other places.

A flock of snow buntings, numbering at least 15, was feeding on a sunny, south exposure. We heard them twittering when we were still several hundred feet away. The only vegetation present on the hillside was herbaceous growth including goldthread, twin-flower, a common grass, mosses, and others. Three rosy finches were drinking and/or bathing in a small water pocket or basin in a narrow rivulet flowing down the mountainside. The birds, about as large as a horned lark, were reddish- or blackish-brown except for a distinct gray cheek patch. Their flight was undulating; they were not timid.

April 10, 1944. I was glad when about an inch of light snow fell last

night, for I observed a number of birds pulling and pecking for food scraps around a garbage pile. At noon I paused in a jeep within 15 feet of the birds to watch them play and compete for food. They were Hepburn's rosy finch, about seven of them in this one spot. The body plumage was chiefly a reddish brown, except for rose on belly and abdomen; the bend of the wing was also rose with a whitish edge; the forehead was black; the cheek and crown, gray. The birds' actions resembled very closely those of our purple finch. It was a pleasure this sunny day to watch these beautiful birds in the fresh snow.

May 13, 1944. It was about three weeks ago, around April 25, that I first noted the presence of numerous small birds around the knolls and near the creek bank in the dead vegetation near our oxygen shop. Their incessant twitterings reminded me of longspurs, yet at times the notes turned to a sort of whistle somewhat like the horned lark. The birds were timid and difficult to see. At a distance, they seemed to be dull-colored ground inhabitants blending so perfectly with the dull earth that they were not easily observed. Their notes seemed to be coming from all over the hills.

Not until May 8, did I finally get a clear look at this trim, beautiful little bird about the size of a white-throated sparrow. It had a brownish back, gray and dark stripes on the crown, and a white head with a striking pitch-black chin and throat. Its out-

er white tail feathers showed prominently in flight. The birds were everywhere about us, and I have since seen several at close range.

Only occasionally have I observed the rosy finch in the past month and then only one to several birds at a time.

Three days ago, May 10, I saw the first gulls of the season winging high overhead. They must have returned recently from the south.

Ptarmigan have turned out to be much more common than I had thought. About three weeks ago, though the snow had all gone from the south exposures, I saw two individuals still in white winter garb, climbing a steep mountainside. Even a quarter of a mile away these birds stood out prominently against the dull brown background of dead vegetation. This must be the courting season for this species, for one was calling in a low guttural note to the other, possibly its mate.

The green vegetation is becoming quite prominent now, with stout herbaceous sprouts two to six inches in height showing conspicuously. Grasses, however, are slow in appearing.

May 14, 1944. Today I followed a creek upstream from the bay for a one-hour hike into the near-by mountains. The weather was partly cloudy, temperature about 55° F., and a brisk north-west wind was blowing. The snow is all gone from southern slopes and is disappearing rapidly from the north slopes and deep ravines.

I had been out only a few minutes when I encountered the drab sparrow-like birds mentioned in the report of May 13. This time I got within 20 feet, and to my great surprise saw rich chestnut on the nape. The crown, throat, and chin were black; underparts, white; wings and back, mixed light and brownish; and a whitish line back of the eye. I thought at once—chestnut-colored longspurs! If not,

then they must be a sub-species; the identification couldn't miss. What a trim, handsome bird!

A short while later I saw the male and female together. I had seen the female before without realizing it. She is different from the male in having no black crown, throat, and chin but has dark stripes alternating with white over the crown. The nape did not seem to be bright chestnut as in the male.

These birds are now frequenting almost every hill and ravine, singly or in pairs. They cavort about flying or walking over the tundra, and their melodious whistles fill the air, at times reminding me of the bubbling notes of a bobolink. They have a habit of alighting on the highest point of a small knoll and, as the observer approaches from lower down, the bird stretches and cranes its neck upward to take full cognizance of the intruder. I must have seen at least 40 or 50 individuals of this species during the hour I was out. The longspur, by identification from the bird book, turned out to be the Alaska longspur, a typical species of the Aleutian tundra. A single song sparrow was the only other bird I saw.

May 22, 1944. While riding down to chow tonight at 6 p.m., I saw two ptarmigan fly across the road behind the weapon carrier. Both birds seemed to have considerable black plumage about the head and breast, but they were still at least 40 per cent white. Today, also, I heard distinctly the call of a loon flying over our hut.

May 25, 1944. In a small fresh-water pond near Andrews Lagoon, I observed two handsome male scaup ducks sitting calmly on the water only 100 feet from shore. Also, I watched an adult bald eagle flying low along the sea shore and carrying a long slim object in its talons.

May 28, 1944. The vegetation, coming up fast, is now 6 to 12 inches high. The

first flowers of the season are a buttercup and a lavender-flowered species with a whorl of obovate leaves. The latter species grows on the mountain-side.

Today, I hiked from 3 p.m. to 8 p.m., first along the shoreline of Finger Bay, then across a mountain to a river emptying into Thumb Bay. The day was cloudy and cool. The following bird species were observed: sandpiper (sp.?), 1; Harlequin duck, 6; snow bunting, 2; song sparrow, 2; Alaskan longspur, 30; bald eagle, 5; gull (sp.?), 6; and rosy finch, 1.

The sandpiper appeared to be a species resembling either the spotted or the solitary and was flushed several times along the shoreline of the bay. The group of six harlequins perched on a floating log near shore. The white crescent on the head and other white markings on the body and neck were conspicuous to the naked eye at a distance of about 300 feet and served to identify the species. As I approached, all six took to the water and moved slowly away.

A pair of snow buntings, garbed in black and white, were feeding in a spring-like seepage area grown up to small herbaceous vegetation and located near the top of a small mountain. These are the first of this species I have observed since early April. They are probably nearly ready to nest.

The longspurs seemed to be everywhere; singing, twittering, and flying from tussock to tussock. They are obviously preparing to breed. Several times I came within 25 or 30 feet of the handsome males and could see plainly the black head and chestnut nape. This is a restless species, seemingly always to be flitting about or walking over the tundra while their songs fill the atmosphere with music.

In the grassy tundra atop a 1500 to 1800 foot mountain, I flushed a female

longspur from thick matted grass which I am sure was her nesting site. She flew nervously in circles around me only 25 or 30 feet away. She was soon joined by the male, and both continued their fluttering around and twittering. This was a beautiful breeding site, located near the edge of a tiny rivulet of cold spring water, flowing intermittently above and underground. The ground was uneven and dotted with small fresh-water pools, rivulets, and springs. Small mounds or tussocks of tundra characterized the landscape. The nest, apparently just in the process of construction, was sunk six inches into the tundra moss and the thick matting of dead grass and sedge. The entrance was directly above the nest proper, but it was unnoticeable even when one was practically over it.

June 3, 1944. Between the hours of 8 and 10 p.m. today, I took a motor-launch ride out of Finger Bay, thence east along the shoreline of the Island to Thumb Bay, Little Finger Bay, and Scabbard Bay. At times we were within 100 feet of the shore. On leaving Finger Bay, we encountered two seals swimming in the churned-up water. All we saw were their dog-like heads before they dived under.

Along the rocky shoreline the towering cliffs (upwards of 1000 feet) were still capped with snow. Numerous cormorants perched motionless on jagged rocks jutting out of the water close to the shore. The birds stood with heads stretched upward and blended so perfectly with the brown rocks that they were difficult to see. A few flushed and flew across the path of our launch.

We saw the following species of water birds which were new to me at the time:

Ancient Murrelet. A small dark duck-like bird out in open water. Probably about 12 inches in length, although it

appeared to be only 8 or 9 inches in length in the water. Only distinguishing characters were two white streaks about one inch long on either side of the dark head. We passed within ten feet of one bird which did not submerge. Others dived to escape the oncoming boat.

Pacific Eider. Some 25 or 30 males and females were nesting on a low rock ledge along the shoreline of the island. They flushed as we came within 300 or 400 feet. The male was distinguished by nearly pure white head, neck, wings, breast, and back while abdomen, belly, and sides were black. Females, about 50 per cent of the total number, appeared to be entirely brown. The birds were about the size of mallard ducks or slightly larger.

Guillemot. A duck-like, dark-colored bird the size of a blue-winged teal. It is characterized by a conspicuous white patch on the wing and by red legs and feet. It flew low over the water with legs extended behind.

June 11, 1944. Six of us took a trip to Shagak Bay, about seven miles from Happy Valley, and were able to drive to within three miles. On the way I saw five Alaskan ptarmigan. The male with prominent red eye comb, tan body plumage, black tail feathers, white belly and abdomen, and white wings was truly handsome. I got within ten feet of one bird strutting his stuff and flushed a female from a dead-sedge area overlooking a gorge. Here I hoped to find a nest, but there were signs of roosting only. The characteristic clucking noise, which sounds to me like a subdued snore, was uttered constantly by the ptarmigan even in flight.

Alaskan longspurs were everywhere over the mountains singing their hearts out. Upon reaching salt water on the west side of Adak Island, we saw a seal only 200 or 300 feet from shore watching us curiously. When we threw

stones, he would splash and dive under, only to reappear in a kelp bed and stare at us.

Several shore birds of a species somewhat resembling the pectoral sandpiper were feeding along the rocky shore, but they kept well ahead of us. Two flocks (about 15 to 20 each) of northern eider, a considerable number of guillemot or sea pigeons, a few song sparrows, one raven, and several eagles completed our list for the day.

June 18, 1944. Today I hiked over a small mountain and along the north shore of Finger Bay. A seal lay in the water 100 feet from shore watching my movements. I saw only one water bird, but it was too far away to identify. I must have been very close to the nest of a rosy finch, because it scolded me and flew around in circles at the base of a cliff within 20 feet of the water's edge. There were so many likely nesting sites that it was difficult to know where to look. As I climbed 150 feet up the mountain slope, the finch followed me, chirping and darting nervously from rock to tussock of tundra.

June 24, 1944. Today (Sunday) I walked outside our B.O.O. to take a picture, and only 150 feet from the hut I flushed an Alaskan longspur female off a nest containing four eggs. The cup-shaped grass nest was lined with several feathers and neatly embedded in the dried-up vegetation of last year's tundra growth. It was cozily concealed beneath a large clump of anemones in full bloom—a striking picture. The site was near the summit of a small knoll on the eastward slope. The eggs were a light uniform brown spotted with irregular patches of darker brown. As I was writing the notes on this discovery, the female flew around me nervously within 15 feet but never uttered a sound. The male was nowhere to be seen. This nest, found

by accident, is the first I have seen in spite of my many earlier attempts to locate one.

July 16, 1944. On a trip by boat into Little Finger Bay we passed within several hundred feet of a sheer rock cliff near the entrance to the bay from the Pacific. Here I observed eight or ten small, dark-colored birds with large brilliantly colored bills—no doubt they were a species of puffin. The birds would fly out over the water, then circle and return to their perch on the rocky

ledges and pointed rocks where they were difficult to see. It is probable these birds nested near this cliff, which was so far from where we beached that I was unable to visit the spot.

July 17, 1944. Today I looked at the Alaskan longspur nest near our quarters and it was empty, although three days ago the fledglings were still there. Young longspurs with short stubby tails are thick over the tundra slopes and valleys. **Robbinsdale, Minnesota.**

Minnesota Mammals of the Upper Mississippi Wildlife and Fish Refuge¹

by William E. Green

The Upper Mississippi River Wildlife and Fish Refuge, longest refuge in the United States, consists chiefly of bottomlands along the Mississippi River. Development of the nine-foot navigation channel has changed both water levels and wildlife habitat during the past few years. New marsh habitat as well as formation of extensive pools resulted from the construction of 13 dams within the limits of the refuge. Mammal populations, therefore, were altered both as to distribution and abundance, showing increases in some species and decreases in others.

It is unfortunate that there are so few available data on abundance of mammals before the pools were flooded. Most early records give occurrence only, with little information on actual populations.

Description

Refuge bottomland varies from 2 miles to 5 miles in width from the mouth of the Chippewa River to Prairie du Chien, Wisconsin. Below Prairie du Chien, bottomlands become narrower until reaching the Savannah Proving

Ground near Savannah, Illinois. Between the Proving Ground and Clinton, Iowa, wide river bottoms are the rule. However, below Clinton, from Beaver Island to the lower end of the Refuge, bottomland is negligible except at the mouths of tributary streams.

Precipitous wooded hills, varying from 200 to 600 feet in height, border the refuge from the Chippewa River to Clinton, Iowa. Below Clinton, these hills give way to much more gradual slopes.

The Upper Mississippi River valley is unique in its flora and fauna. It enjoys climatic conditions not generally associated with its geographic location. What has been referred to as a 'pseudo-Carolinian Zone' extends north along the Mississippi into the Alleghanian Zone. Thus, refuge flora and fauna, although primarily Alleghanian, have representatives of Carolinian species, as well as occasional Canadian forms. A feature making the refuge even more interesting is the over-lapping of eastern and western species and subspecies.

Data on the mammals of the refuge are still incomplete. Information in-

¹This refuge was created by an Act of Congress on June 7, 1924. Its 122,472 acres are distributed with 5,256 in Illinois, 24,639 in Iowa, 67,312 in Wisconsin, and 25,265 in Minnesota. The refuge lands consist of intermit-

tent tracts located along 284 miles of the river from Wabasha, Minnesota, to Rock Island, Illinois. The area is administered by the Fish and Wildlife Service, U.S. Department of the Interior.

cluded in this partial list has been compiled from reports prepared by F. M. Uhler, Fish and Wildlife Service, who conducted surveys on the area during the summers of 1926, 1927 and 1928; from a report by Vernon Bailey, who conducted a survey from June 18 to August 20, 1930; and from files and notes of the Upper Mississippi Refuge and its personnel.

It should be pointed out that this is only a partial list of refuge mammals, containing those species which now occur, or have occurred, on the Minnesota portions of the refuge. Records on larger animals are believed to be complete. However, to date, Vernon Bailey is the only investigator who has done much trapping of the smaller mammals. Undoubtedly, other of the smaller species could be taken if a program of extensive trapping were undertaken. The more common mammals reported by both Uhler and Bailey were often recorded from sight records only although some specimens were collected. Data from refuge personnel are based largely on sight records although specimens have been taken of some of the uncommon species. Most fur bearers have been taken during open trapping seasons on the refuge or surrounding bottomlands.

List of Mammals

VIRGINIA OPOSSUM *Didelphis virginiana virginiana*

This animal has been reported definitely from Jo Davies County, Illinois, by Uhler in 1927. Pulling also reports it as rare on the refuge but gives no distributional data. No recent records have been made for the Minnesota portions of the refuge.

PRAIRIE MOLE *Scalopus aquaticus machrinus*

Bailey reports this species as abundant the whole length of the Wildlife Refuge, both on the bottomlands and over the high ground on both sides

of the valley.' No specific reference was made to Minnesota. No recent trapping has been done, and this species has not been observed or taken since the dams were flooded. This does not mean, however, that the species no longer occurs on the refuge.

SHORT - TAILED SHREW *Blarina brevicauda*

Bailey states: "These big velvety shrews with silky, bluish-black fur are common everywhere that trapping has been done, both on the bottomlands and on the uplands." This would imply that the species occurred on Minnesota portions of the refuge, but it is not a definite record. No recent records are available.

LITTLE BROWN BAT *Myotis lucifugus*

Bailey reports: "A male in fully developed sexual condition was found dead in the streets of Wabasha (Minnesota) on July 5 (1930), where it had been killed and thrown out from the hotel. Two males brought to me August 19 and 20 (1930) caught fly-(Bailey) in the hotel at Winona, in about the rooms and halls showed no sign of breeding activity and the mating season is evidently over. On warm evenings hundreds of bats are found flying over the water or among the trees and buildings, rapidly catching insects on the wing." This species has not been affected by impoundment of water in the pools.

LONG-EAR LITTLE BROWN BAT *Myotis keenii septentrionalis*

Bailey reports this species as "almost and in places quite as common as the Little Brown Bat." He further states: "A couple of males taken in the hotel rooms at Winona, August 19 and 20 (1930) were also in quiescent breeding condition, evidently after the mating season was over." This species is abundant at present and populations have

not been affected by impoundment.

UPPER MISSISSIPPI VALLEY RACCOON *Procyon lotor hirtus*

Raccoon sign was common to abundant throughout the refuge during all three summers' work done by Uhler and was found the entire length of the refuge by Bailey.

This species has increased considerably since the dams were built and in some areas reached a point where a raccoon season could be opened. In the fall hunting season of 1944, numerous animals were taken in Houston County, Minnesota.

LEAST WEASEL *Mustela rixosa*

A specimen of this species was found on the Whitman Dike (Dam No. 5) in February, 1941, by Louis Geisen, Wisconsin State Warden. The skull and skin are available at this station. The skull was sent to Dr. E. R. Hall who identified it as belonging to the subspecies *Mustela r. rixosa*. Uhler quotes C. B. Cory as having taken a specimen of *Mustela r. alleghaniensis* at Prescott, Wisconsin.

LONG - TAILED WEASEL *Mustela longicauda*

Both Bailey and Uhler list this species as possibly present in the Minnesota portions of the refuge but have no definite records. Uhler, quoting C. B. Cory, states that a specimen was taken at Prescott, Wisconsin. Weasel tracks commonly are found on the refuge at the present time.

MISSISSIPPI VALLEY MINK *Mustela vison letifera*

This species is locally common to abundant throughout the refuge, and occurs in numbers in the Minnesota portions. In the 1943 fall trapping season on the refuge, a total of 95 were taken on the Minnesota portions, including 38 in Wabasha county, 16 in Winona county, and 41 in Houston county.

Mink have increased steadily since impoundment of the river and have reached sufficient numbers in some localities to be a limiting factor in muskrat production. Conditions prevailing during the river draw-downs of the past few winters have been exceptionally favorable for mink and have made muskrats more than usually susceptible to mink predation.

CANADIAN OTTER *Lutra canadensis canadensis*

Otter were at one time common along the rivers and streams of the Mississippi valley but were nearly exterminated at the time the refuge was established. Since then, a few individuals occur occasionally in the Nelson-Trevino Bottoms across the river from Wabasha, Minnesota. In 1941, tracks were found south of the Reno Dike (dike for Dam 8) at Reno, Minnesota. In the fall of 1944, two definitely were known to inhabit portions of Houston County, Minnesota, in this vicinity. The range of the species has been extended; and now, about 15 can be found south of Dam 9 in the Harpers Ferry (Iowa) region, while a few occur in the Sny Magill area south of McGregor, Iowa. This is one fur bearer which definitely has benefited by the protection afforded by the refuge and it may eventually build up to trapping populations.

PRAIRIE SPOTTED SKUNK *Spilogale interrupta*

Bailey states that this species is fairly common along the bluffs for the entire length of the refuge, thereby implying that it occurs in the Minnesota portions. Although he remarks that they are found on both sides of the river, he makes no Minnesota records.

Uhler gave records of this species having been purchased for fur buyers at Sabula, Iowa, in 1915-16. These furs were taken in the immediate vicinity which indicates that this skunk occur-

red there for some time prior to the impoundment.

Spotted skunks occur on the refuge at the present time but are not common. Ecological changes resulting from impoundment have had little effect inasmuch as this species is more common on the bluffs than in the bottoms.

STRIPED SKUNKS

Uhler states: "Apparently two species of the striped skunk, the Illinois Skunk and the Northern Skunk (*Mephitis hudsonica*, Richardson) range through the region which includes the refuge." Bailey also mentioned the possibility that both forms occurred. Dr. Gustav Swanson, however, indicates that according to studies made by Carl Mohr of the Illinois Natural History Survey, the range of the Illinois Skunk does not extend to the refuge.

Striped skunks are common on Minnesota portions of the refuge, but we have made no attempt to establish the exact species or subspecies. In 1941 local areas had fairly high skunk populations and consideration was given to an open trapping season. However, successive periods of prolonged high water in the springs and early summers of 1942, 1943 and 1944 so reduced the skunk populations that they are not common at the present time.

BADGER *Taxidea taxus*

This animal seldom is seen, but its burrows occasionally are found on the refuge. Bailey reports burrows at La Crescent, Minnesota. Flooding of the river valley reduced the already limited badger habitat, and their numbers probably are less than when the refuge was first established.

RED FOX *Vulpes fulva*

Red foxes are fairly common in Minnesota portions of the refuge. Uhler states that signs of this fox were noted in several places on the north end of the refuge; and Bailey remarks,

"Red fox are said to be fairly common. . . in Minnesota and Wisconsin (on the refuge) but are not so common as the gray fox."

In some localities, red foxes have become so numerous the past few years that there is considerable agitation for an open season on this animal on refuge lands. Sportsmen feel that the high fox population below the Alma Dike, Wabasha county, Minnesota, should be reduced.

GRAY FOX *Urocyon cinereoargenteus ocythus*

Gray foxes likewise are quite common on Minnesota portions of the refuge. Bailey records them as "fairly common, as foxes go, along the bluffs and cliffs on both sides of the river valley. . . at least to the lower end of Lake Pepin."

Gray foxes also have shown an increase in the past few years, and trappers bordering the refuge have made good catches of this species during the past year. The increase seems to be general in this portion of the country and refuge fox populations probably have not built up to greater extent than did those on adjoining lands.

NORTHERN COYOTE *Canis latrans*

Bailey reports: "At Sand Plains, just below Kellogg (Minnesota) a few are caught each year." Uhler records them from near Sprecht's Ferry, Iowa, but gives no Minnesota record. We have no recent records for this species.

CANADA LYNX *Lynx canadensis*

Bailey reports: "Much to my surprise, several of the old time hunters and trappers assured me that occasionally, years ago, a Canada Lynx was taken in the La Crescent (Minnesota) region on the Minnesota side of the River."

Uhler did not mention this species, and we have no recent refuge records. It probably does not occur here at the present time.

BOBCAT *Lynx rufus rufus*

A bobcat was taken in the Winona Pool (Winona county) in the winter of 1943-44. The skin and skull of this animal are available at this office. Bailey states: "One especially large one was taken in a cave near La Crescent a few years ago." This species is rare on the refuge.

WOODCHUCK *Marmota monax*

Woodchucks are common throughout the length of the refuge and occur commonly in Minnesota portions. Uhler lists it as abundant throughout and states that the region is the range of two geographical races of the species, *Marmota monax monax* and *Marmota m. rufescens*.

THIRTEEN-LINED GROUND SQUIRREL *Citellus tridecemlineatus tridecemlineatus*

This species at present is commonly seen on the refuge and occurs on Minnesota portions. Both Uhler and Bailey report it from Minnesota.

FRANKLIN'S GROUND SQUIRREL *Citellus franklinii*

Neither Uhler nor Bailey observed this species on the refuge, although both report it as probably occurring. We have a record from near Guttenberg, Iowa, but none for Minnesota.

GRAY CHIPMUNK *Tamias striatus griseus*

Both Uhler and Bailey report this species from the bluffs along the river, but Uhler did not see it on the bottomlands.

NORTHERN GRAY SQUIRREL *Sciurus carolinensis leucotis*

This species is fairly common in southeastern Minnesota and occurs on the refuge occasionally. It is, however, mostly restricted to the nearby bluffs.

FOX SQUIRREL *Sciurus niger rufiventris*

This species is common to locally abundant throughout the refuge and

is common on Minnesota portions. Clearing of timber in connection with the canalization reduced some of the food and den trees for this species and it is probably not as common now as before the clearing was done.

GRAY-BELLIED SQUIRREL *Sciurus carolinensis hypophaeus*

This squirrel is common on the refuge and it occurs in parks and towns. It is common in Winona. Bailey reports it as the most common gray squirrel.

RED SQUIRREL *Tamiasciurus hudsonicus loquax*

Uhler reports that these squirrels were common on wooded hillsides bordering the refuge but were not seen in the lowlands.

Refuge Ranger Ferguson and I observed one along the road between La Crescent and Brownsville, Minnesota, in April, 1944, but this species does not often occur in the bottoms.

FLYING SQUIRREL *Glaucomys volans volans*

I have never seen this squirrel on the refuge, although scars left on trees from the gnawings of these animals locally are common. Bailey states: "These little squirrels are said to be found both in the timber along the bluffs and in the bottomlands at Wabasha, La Crosse and La Crescent on both sides of the river." Uhler reports extensive damage to silver maple throughout the refuge by the gnawings of this species.

POCKET GOPHER *Geomys bursarius bursarius*

This animal occurs in Wabasha county and in other part of the refuge. Bailey states that it is common to abundant all down the Minnesota side of the river to La Crescent and below, but that no trace of gopher hills could be found on the Wisconsin side as far south as Prairie du Chien, Wisconsin.

He collected a specimen at La Crescent.

BEAVER *Castor canadensis canadensis*

Beavers at one time were common along the river but were nearly extirpated at the time the refuge was established. A few animals were live-trapped in northern Minnesota and Wisconsin by refuge personnel and were planted on the refuge in the Nelson-Trevino area in 1928. From this plant, the animals have increased and spread and are now found in all states bordering the refuge and in most pools. They are locally abundant below the Alma Dike in Wabasha county and are common in the Winona Pool in Winona county. Some have been taken in Wabasha, Winona and Houston counties during open state trapping seasons within recent years.

HARVEST MOUSE *Reithrodontomys megalotis dychei*

Bailey collected this species near Kellogg, Minnesota, on the sand prairie. We have no recent records.

BAIRD'S MOUSE *Peromyscus maniculatus bairdi*

Bailey collected this species at West Newton, Minnesota (Wabasha county) and near Weaver, Minnesota. We have no recent records.

EASTERN WHITE-FOOTED MOUSE
Peromyscus leucopus

Bailey reports: "These large deer mice are common in the woods and brushy bottoms over the refuge and along the timbered bluffs on both sides of the river valley." This species is common at the present time.

LEMMING MOUSE *Synaptomys cooperi*

No definite records for Minnesota but Bailey took one at Lynxville, Wisconsin, on July 30, 1930. We have no other records.

MEADOW MOUSE *Microtus pennsylvanicus pennsylvanicus*

These mice were reported by Bailey as being generally abundant in the dense vegetation of the river bottoms, marshes and meadows of the Wildlife Refuge. Bailey states: "Over the great marshy areas they are often so numerous that trails of cut grass can be seen almost everywhere as you walk through the grass and sedges." Meadow mice are common on the refuge at the present time, although flooding has reduced their habitat considerably.

UPLAND MOUSE *Microtus ochrogaster*

According to Bailey "they were found at West Newton, Minnesota (Wabasha county) along the edge of an oat field and also on sandy hill sides of the prairie. At La Crescent they were out in dry fields."

PINE MOUSE *Pitymys pinetorum scalopsoides*

We have no definite records for Minnesota but Bailey collected this species near Lynxville, Wisconsin, in 1930.

MUSKRAT *Ondatra zibethica zibethica*

Muskrats are common to locally abundant on Minnesota portions of the refuge. The greatly increased marsh habitat created by the impoundment and stabilization of water in connection with the nine-foot canalization project, has improved conditions for muskrats. High populations resulted. In 1939-40 there were 4550 houses in the Weaver Bottoms alone and the animals were scattered throughout the marsh areas.

Normally, large numbers of these animals are trapped annually from refuge lands. Extremely high water in the river bottoms the past few years has decimated the population to such an extent, however, that in 1943 only 642 of these animals were trapped on the Minnesota portions of the refuge, and in 1944 no open trapping season was held. This species has a sufficiently high reproductive potential to make

a rapid recovery and with favorable conditions in the next few years normal high populations can be expected.

BROWN RAT *Rattus norvegicus*

This species is found occasionally on Minnesota portions of the refuge both in the bottoms around old buildings, and in old fields, meadows, and near weedy fences.

JUMPING MOUSE *Zapus hudsonius hudsonius*

One of these animals was taken at La Crescent in 1930 by Oliver Austin one of the members of the Vernon Bailey party. It was taken at the base of timbered bluff-land, well above the valley bottom. We have no other refuge records.

JACK RABBIT *Lepus townsendii*

This species occurs occasionally but is not common. Bailey records it from West Newton, Minnesota, in 1930. At present, it occurs occasionally on Sand Prairie areas but is not common.

MEARN'S COTTONTAIL *Sylvilagus floridanus mearnsii*

This animal is common to locally abundant throughout the refuge and occurs frequently in the Minnesota portions. The population varies considerably on the refuge due, no doubt, to water fluctuations. The spring of 1944 young were observed in abundance in

some portions of the refuge. They are common near Winona.

WHITE-TAILED DEER *Odocoileus virginianus borealis*

Deer occur in all Minnesota counties on the refuge and are increasing to some extent. Although limited on the refuge by restricted habitat, they are found commonly in the bottoms and have increased in some areas to the point where they have become a menace to motorists. Each year a few animals are killed on the highways and by trains.

References

Bailey, Vernon. A report on Mammals of the Upper Mississippi Refuge from a Survey made from June 18 to August 20, 1930.

Uhler, F. M. Fur Bearers and Larger Rodents of the Upper Mississippi Refuge from a Survey made in the Summers of 1926 1927, and 1928.

Files and Notes of the Upper Mississippi Refuge and its personnel.

Biologist, U.S. Fish and Wildlife Service, Winona, Minnesota

Editor—The second part of Mr. Green's paper on the Birds of the Upper Mississippi River Wildlife and Fish Refuge will appear in an early issue of THE FLICKER.

There will be an annual meeting of the M. O. U. in Duluth on Saturday, May 19, 1945. No papers will be presented, but there will be a bird observation tour on Minnesota Point starting at 8:00 a.m. followed by lunch and a business session at 12:00 noon on the picnic grounds.

Trains from both Minneapolis and St. Cloud arrive at Duluth at 6:30 a.m. on Saturday morning. For those people from Minneapolis who wish to arrive on Friday May 18, a train leaves Minneapolis at 5:00 p.m. and arrives in Duluth at 8:00 p.m. The Duluth Club would like to know how many out-of-town members plan to attend.

NOTES OF INTEREST

GREAT HORNED OWL AND GIANT WATER BEETLE—Last October (1944) I spent several days in the big bog country between Red Lake and Lake of the Woods, hunting moose for a new museum group. Early one morning Mr. Patterson, of the Red Lake Refuge staff, and I were walking along a narrow road when I noticed pellets cast up by great horned owls which had apparently been sitting in the middle of the road the previous night. On opening some of these pellets several of the big shiny brown wing covers of the giant water beetle (*Bellostoma*) were found. I called Patterson's attention to these and commented that I had often wondered under just what circumstances the owls caught the big beetles.

Several days later we went back to one of the more isolated cabins in the area and separated for a late afternoon hunt, Patterson going south along an old drainage ditch while I went north. About dusk I heard peculiar rattling sounds among the willows bordering the ditch. I finally discovered that the giant water beetles were flying up from the water. Passing through the leafless willows their hard wing covers made the mysterious rattling sounds. With a rather slow steady flight they spiraled upward until lost to view at perhaps 100 feet.

When I finally reached camp after dark, Patterson was there with a report of having seen a great horned owl fly out from a perch on the tiptop of a dead spruce and return to it as an olive-sided flycatcher is often seen to do. The owl appeared to eat something clutched in its talons, but Patterson had not been able to make out what it was. Our various observations dovetailed so well as to leave but little doubt that the owl had demonstrated just how the giant water beetles came to appear in the pellets.

This is not a new habit to be reported for the great horned owl. Dr. T. S. Roberts in *THE BIRDS OF MINNESOTA* described horned owls taking June beetles in this way at Lake Minnetonka back in 1878. However, the linking together of the three separate field observations into a complete story of the owl and the water beetles was thought to be a rather unusually fortunate coincident—the type of coordinated observations that we bird students would like to make oftener in our efforts to complete the life histories of so many of our birds which are now not too well known. W. J. Breckenridge, *Minnesota Museum of Natural History, Minnesota*.

NOTES FROM THE MARIANAS—Birds are very scarce in the Marianas as they are around Honolulu. Judging by the climate you would expect lots of them. I have seen a few ducks, coots, terns, plovers, and gulls. I have also seen a large white heron-like bird but not at close enough range to be certain if it is an egret. Also there are doves here; they are larger than those of the States. There is a different species of kingfisher and also a swallow. One day I saw a long-billed curlew.

Recently I collected a male cricket and have preserved him in alcohol. There are several species of lizards and geckos, but only one species of snake which burrows in the ground. These geckos are peculiar. They sit around waiting for insects, and while they wait they spend the time "chirping". Toads are very

numerous but there are no frogs. The toads have been imported. The only native mammals found here are two species of bats. There are some very large species of land snails. Louis Moos

PILEATED WOODPECKER AND THE RED SQUIRREL—A rather spectacular use of the warning color pattern in the pileated woodpecker was observed on two occasions during the past year. Early last spring (1944) a pileated woodpecker was seen vigorously chiseling away on the base of a huge dead oak near our bedroom window. The bird was only a few yards away, so I hustled out the movie camera fumbling hastily to attach it to the tripod. Glancing up I noticed a cocky little red squirrel come along the ground toward the oak. I assumed it would pass by after satisfying its curiosity about the big crested woodcutter, but, to my surprise, it came closer and closer and finally made a sudden dash to within a yard of the woodpecker. When the big fellow saw the squirrel was not merely inquisitive but was really attempting to drive him away, he suddenly threw open his big black wings with their startling white linings and drew back his scarlet-crested head with its formidable chisel bill and stood his ground. The squirrel, much surprised at the pileated's bold stand and sudden display, turned and beat a hasty retreat while the woodpecker went on with his hunt for carpenter ants. Just a moment after the little act was over my camera was ready for action!

In mid September my nephew, Bruce Breckenridge, and I were paddling through a narrow pass on Basswood Lake north of Ely when a pileated woodpecker flew across just ahead of us and alighted on a small Norway pine near the right shore. I turned the canoe toward the bird and glided silently forward. Finally the bow of the canoe touched shore with the big red-crested bird only 20 feet away and not in the least disturbed. Just then we noticed a red squirrel coming down a nearby pine. It reached the ground and ran directly to the tree where the woodpecker was pecking in a rather disinterested manner about 10 feet from the ground. With little hesitation the squirrel ran up the tree on the side opposite the bird until nearly at the same height where it peered around at the woodpecker as though expecting it to fly. To my surprise, and undoubtedly to that of the squirrel too, the bird threw open its wings and drew back its head in exactly the same manner as the bird at home had done. And again it gained its point and sent the little red squirrel scurrying to the ground where it dashed away on other apparently more urgent errands. W. J. Breckenridge, Minnesota Museum of Natural History, Minneapolis

TUFTED TITMOUSE NEAR ANOKA—On Lincoln's Birthday of this year (1945) Mrs. Breckenridge happened to notice a strange bird with the chickadees and nuthatches in a basswood tree near our window. It very soon erected its sharp little crest, and we could see that it was a tufted titmouse. A little later I was working near the window, and it alighted and fed at our suet feeder within arm's length just outside the glass. It remained about most of the afternoon and was seen again the following morning. No more was seen of it until my neighbor, Mr. George Laing, reported seeing it feeding at his feeder on several occasions, the latest being on March 3. These observations were made at my home five miles north of the Minneapolis city limits along the west bank of the Mississippi River. W. J. Breckenridge.

HOW A PHOEBE'S NEST WAS MOVED—From July 23-29, 1944, at the Itasca Park University of Minnesota Forestry School, observations were made on a phoebe's nest which was located on a beam underneath the ceiling of the porch dormitory. During the week the porch was occupied by Scouters attending the University of Scouting from daylight to dark, and the phoebes would not come in to feed the young, of which there were three in the nest. On July 25, we moved the nest to a nearby cabin and placed it on a projecting log under the eaves. The parents found the nest within an hour and were feeding the young. A parent was on the nest next morning and all was well when we left for home on July 29, Arne Arneson, Fergus Falls, Minnesota.

SAPSUCKER-HUMMING BIRD FEUD—In Itasca Park on July 29, 1943, I saw a pair of yellow-bellied sapsuckers that was feeding on a birch. They were interrupted quite frequently by a ruby-throated hummingbird. As soon as the hummer appeared on the scene, it was promptly driven off by the sapsuckers. This performance was watched from a distance of about 15 feet for an hour. Arne Arneson, Fergus Falls, Minnesota.

- CALL NOTES -

"Tis spring, the boid is on the wing; how absoid, the wing is on the boid!" Don't be alarmed. The sedate and business-like Flicker is suffering an attack of spring fever with this issue. Spring fever means the urge for something new: for women, new clothes; for men, new ambitions; for bird lovers, new jaunts into the field; for The Flicker, a new page tentatively named "Call Notes."

But, readers, here's the rub! The editors will be calling for notes from you with which to continue this page in other issues. Send in "chatty" items about yourselves, about your club activities, and about members now in the armed forces. Help up to keep "Call Notes" up to date, and we will help you become better acquainted with other bird enthusiasts of the state. And we can promise you, too, some interesting Museum notes from Dr. T. S. Roberts. For example, did you know that the seating capacity of the Museum auditorium is 477? That two or three times during the last November-to-March series of Sunday lectures people had to be turned away? That one of those Sundays the tally record of attendance was 900? Don't forget the Museum is open from 8:30 a.m. to 5:00 p.m. weekdays and 2:00 to 5:00 p.m. on Sundays and holidays. You will almost always find Dr. Roberts, Mr. Kilgore or Dr. Breckenridge—so stop at least for a "hello."

Lt. G. N. Rysgaard after being in the Hawaiian Islands for some months has been at Leyte and elsewhere in the Philippines since the invasion began. He is in charge of a radar station. Was in some fierce fighting at the landing on Leyte. He writes interesting letters about the natural history and natives of

the lands where he has been stationed.

Lt. Marius Morse, long-time member of the M.O.U. and the Minnesota Bird Club (about 1932), after leaving the employ of the State Conservation Department in 1942, joined the Navy, studied at Cornell, was stationed in the Aleutians, and is now somewhere in the Pacific. In this issue we publish Part One of his Aleutian notes; two other parts will follow. Lt. Morse is an archery as well as a bird enthusiast. His wife and two children are living in Duluth.

A Fisheries Biologist with the State Conservation Department until last fall when he joined the Army, Ken Carl-ander, associated with the Minnesota Bird Club since about 1932, sends us an article on Texas birds. Ken is somewhat of an authority on Texas birds having spent a number of summers studying them. He has furnished Dr. H. C. Oberholser, who is writing a book on the birds of Texas, with much valuable information. Ken is in the medical corps and has recently gone overseas. His wife, Harriet, resides in Minneapolis.

In a letter to Professor G. W. Friedrich, Lt. Louis Moos tells of his work and his natural history pursuits at Saipan in the Marianas. With his letter he encloses a clipping from a Hawaiian newspaper which tells about a Christmas bird census. Lt. Moos was a member of the T. S. Roberts Club both in and out of College. He was Prof. Friedrich's field assistant, and before entering the Army was a biologist with the Soil Conservation Service in Montana.

Mr. W. E. Greene, author of our mammal article, is a graduate of Colorado State College (1935). He received his Masters degree in game

management from Iowa State College in 1937 and has completed most of his work toward a Ph. D. In 1938-39 he was Regional Game Manager for the Texas Game, Fish and Oyster Commission. From 1940 until March of this year, when he reported for duty as an Ensign, he has been in the employ of the U.S. Fish and Wildlife Service on the Upper Mississippi Refuge.

A letter from Eugene P. Odum, president of the Georgia Ornithological Society, announces a new bird book "The Birds of Georgia," a 111-page check list and bibliography of Georgia ornithology, compiled by E. R. Greene, William Griffin, E. P. Odum, Herbert Stoddard, and Ivan Tomkins, and published by the University of Georgia Press, Athens. Price \$2.00.

Lt. Warren Nord, who was Dr. Breckenridge's assistant, saw service in England, France, Belgium, and later was taken prisoner in Germany. He has recently been released by the Russians and may be on the way home. Capt. Robert Nord, Warren's brother, is somewhere on the Maine Coast, looking after planes that are carrying supplies overseas to the Russians.

Charles B. Reif is in the Navy on a transport vessel somewhere in the Southwest Pacific. He writes interesting letters about the seabirds, whales, por-

poises, and his personal experiences on shipboard.

Pvt. Donald Schantz-Hansen, of the Cloquet Club, is in the medical corps at Ft. Ord, California, administering intelligence tests.

The Misses Fern and Alice Zimmerman have been enjoying spring's return ahead of their Cloquet friends this year as they are now teaching in Cresco, Iowa.

Speaking again of spring and the "boid on the wing," the stork ushered in spring on March 20 for the Arnold Ericksons by leaving them a 9-pound baby boy. We trust little Edward will some day be as ardent a bird lover as his parents.

In April Dr. Breckenridge and Mr. Jaques are going to the Platte River region in Western Nebraska to collect the materials for a Sandhill Crane Group, which is the gift of Mrs. R. W. Berthel of St. Paul in memory of her son, Russel. Mr. Jaques will paint the background for the Crane Group on his return from the collecting trip.

The Museum has recently had a donation of \$10,000 from the Citizens Aid Society of Minneapolis for group construction. This has come through the interest in the Museum of Mrs. George C. Christian.

THE FLICKER

VOLUME 17

MAY, 1945

NUMBER 2



Published Quarterly by

THE

MINNESOTA ORNITHOLOGISTS' UNION

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, May, October and December
Edited by Arnold B. Erickson, University of Minnesota
Minneapolis, Minnesota

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THE FLICKER is sent to all members not in arrears for dues.
Dues for all members, \$1.00 per annum, should be paid in
advance to the treasurer.

All articles and communications for publications and exchanges
should be addressed to the editor.

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THE FLICKER

VOLUME 17

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Natural History Notes From The Aleutians Part II

by

Marius Morse

August 13, 1944. The night before we left on this water trip, Wynt told me of the wren species which frequents the rocky coastline of the bays and which was very common last winter. This astounded me, for in all my wanderings so far I had not seen a single individual. Today, however, we encountered several flitting from vegetation to rocks along the southern shoreline of Little Finger Bay. I observed the birds with 8x binoculars at a distance of only 50 feet, and the identification was unmistakable. The plumage appears uniformly dark brown, as I could find no fine characteristics. The song seemed not unlike that of the house wren.

A friend of mine owns a mounted specimen which was collected last spring. A detailed description, which follows, shows it to differ from all species listed by R. T. Peterson in his GUIDE TO WESTERN BIRDS.

Total length, 4 inches. Bill black, thin, curved slightly downward, 11/16 inches long. Underparts, varying shades of buff barred with blackish-brown, darkest buff (almost cinnamon) on breast, throat. Crown, sides of head,

and back dark brown, darkest on crown. Tail and under-tail coverts, cinnamon, faintly barred with brownish black and only 1 and 1/16 inches long; feathers of undertail coverts tipped with white. Wings brown, barred with black. Belly, sides, and abdomen buff with heavy, dark bars.

The presence of several species of hawks on the rocky cliffs overlooking Little Finger Bay and the main coastline were of particular interest to us. I am sure that one of the birds was a duck hawk. He soared around 250 or 300 feet above us, and then perched high overhead on a rocky ledge which could have been a nesting site. He did not, however, scream at us.

The scream of a much smaller falcon, possibly a pigeon hawk, was clearly audible from the rocky ledge. On another rocky ledge about 75 feet above the water a bald eagle's nest was located. The young birds had apparently left.

All along the rocky coastline of Finger Bay we saw brightly colored horned puffins in small flocks of 10 or 20. The birds flushed frequently, and the odd-shaped, bright bill was partic-

ularly conspicuous in flight. Several small colonies of these birds seemed to be nesting in the rocky crevices of cliffs and caverns at heights of 15 to 50 feet above water.

At one such site accessible from a boat we climbed 30 feet above the water into cracks, caverns, and crevices of huge boulders and sheer cliffs to seek young birds. Some 25 to 40 adult birds had flown away as we approached. We searched carefully all likely crevices for ten minutes, but could find no sign of a nest. Then we spotted a white head way back in a deep hole. By wiggling and squirming on his belly, Wynt managed to reach way back and pull out an adult horned puffin in full breeding plumage. It was brilliantly colored—a remarkable looking bird with bright orange legs and webbed feet. The small, dark horns were seemingly skin outgrowths only $\frac{3}{8}$ inch long and $\frac{1}{16}$ inch in diameter. Searching further, we heard faint "peeps" and finally managed to locate a young puffin all covered with black down—ugly looking, no color, and about 7 or 8 inches long. Small fish three and five inches long were lying on near-by rocks.

We managed to get a few snapshots of the birds taken on the mossy rock and dirt opening in the rocks near the nesting site. The adult puffin was very strong, struggled incessantly, and bit hard with its strong bill. We took one adult and this young bird home with us to attempt to tame them.

The tufted puffins which we observed were at quite a distance, but they could always be told from the other species because of their uniformly dark body plumage. One individual seen at close range exhibited a pair of long yellow streamers or tufts of feathers, one on each side of the head. The two species were intermingled to

some extent, but were usually seen separately.

The puffins are great divers. One "horned" individual dived into several feet of clear water at the base of a sheer cliff as we approached in a small two-man boat. It could be seen clearly underwater. It swam exceedingly fast, diving to a depth of six or eight feet in a few seconds.

In a rock crevice we found one large pure white egg, noticeably larger than a chicken's egg. It had apparently been deserted. It lay on rock chips and dirt, which site could have been a nest. It was probably that of a horned puffin, since this was the only species found at this particular site.

At the base of an 80-foot cliff and among the big boulders exposed at low tide, we found three other large, light-colored eggs with reddish-brown blotches. They were hidden beneath huge rocks, were cold and apparently deserted. A guillemot was seen in nearby water, so we judged they were possibly from the nest of this species.

We were fortunate to observe some four broods of harlequin ducks with the hen. The number of young varied from about 6 to 12, were clothed in dark plumage, and had a white spot on the side of the head. They were about eight inches in length, were great divers and swimmers, and insisted on remaining together. We chased two broods in our little boat among the caverns and passageways along the rocky cliff but could not corner any. Try as hard as we might, we never got closer than 15 feet. They would always dive and elude us at the critical moment. The mother was very timid and would leave her brood when we approached to within 200 feet. At that distance she appeared uniformly tan or light brown to the naked eye.

We saw two other broods (seven and

ten young each) of what must have been eider ducks. The buff-colored young were about eight inches in length. The hen was definitely a uniform brown, possibly barred with black but with no white in the plumage. We chased both broods along the shore, and finally singling out one young bird we cornered it in a rocky crevice five feet in shore. For half an hour we worked to get this duckling out of its hiding place. Finally, after much peeping, it was prodded out with a stick but managed to escape by diving to the bottom of a little pool of water connecting with deeper salt water.

A little farther on, we cornered another young in a kelp bed on shoreline rocks and captured it to take home. We placed the strong youngster in a tub of water indoors but were unable to feed it until 22 hours later—apparently too late. After about 20 hours, the bird grew weak so rapidly that it died, probably of starvation, 24 hours from the time we snatched it from salt water.

The black oyster catchers with bright red bill and legs were seen frequently perched on boulders along the rugged coast line. Their sharp, high-pitched whistle was heard several times. They were not easily seen, so well did the dark plumage blend with the brown and black rocks.

Baird's cormorants by the hundreds were all along the rocky cliffs and rugged coast line, in and out of the water. We found them nesting in the frequent indentations or protected small coves. Many nests, apparently built of grasses, were resting on small ledges or seemingly "plastered" to the vertical surfaces of sheer cliffs. One had to look closely to pick them out; usually they were situated 15 to 30 feet above the salt water.

Immature birds about three-fourths

grown stood motionless in the nest with upstretched necks against the black rock background. In one cavern with rock overhead and on both sides, we spotted a young cormorant. I got ashore and felt my way step by step in the total darkness back to the extreme end of the cave. I nudged something soft with my foot, donned gloves, and then reached down expecting to pull out a small bird, but instead I emerged with a large-sized immature cormorant which struggled and bit viciously with its bill. After extracting another bird from the dark recesses, I returned to our boat. Both birds had plain brown heads, whereas adults show a bright red spot (throat-pouch) at the base of the bill. We took both birds home. One I released by throwing it into the air; the other I placed in a shallow mountain pond about 200 feet across at its widest point. The cormorant found trouble in flying out of this small body of water, but a day later it disappeared.

September 20, 1944. The night before I left Adak for good, I took a short walk along the stream back of the Quarters and noted that there were still a considerable number of longspurs inconspicuously resting or inhabiting the rapidly "turning" vegetation. The males had lost their handsome chestnut and black head and neck plumage and appeared drab—much like the female and young. At closer range, one could still discern faint traces of the chestnut and black feathered areas. The longspurs were quiet and very retiring, twittering only occasionally. There were many more still present than one would suspect. I was surprised that they had not migrated.

The song sparrows were singing more now than at any time since last spring and their notes added a lot of cheer to the atmosphere.

Rosy finches have been observed only very occasionally of late. A wren was reported seen atop one of the small pointed knolls or hills within one-eighth mile of salt water. Until this record, I had seen or heard of this species only along the rocky waterfront.

I saw another duck hawk fly swiftly by our B.O.Q. on September 19. These birds keep considerable distance between themselves and human habitation. I have a hunch the species is much more common than is presumed, though I have observed it only on about four different occasions. The long pointed wings, long narrow tail, and rapid wing beats identify it unmistakably as a falcon.

I observed and took pictures of four blue fox pups held in captivity by Ship Repair personnel and one held by an Army outpost. Their grayish-blue woolly fur, short stubby ears, bushy tail, yellowish-brown eyes, and whitish guard hairs are very characteristic. The "bark" is more like a cross between a grunt, a hiss, and a bark than a real dog's bark.

On September 15, several of my boys

took a trip on foot into the mountains east along the north shore of Finger Bay and encountered several blue fox pups in a rocky hideout. They nearly succeeded in "smoking" them out by burning dried tundra in the mouth of the den. Blue fox have been seen in the wild many times by various individuals, but I was never lucky enough to see a single wild fox although I encountered "signs" everywhere.

The salmon "run" up the stream at the head of Finger Bay was at its height the first half of August. Large salmon up to two or three feet in length were being caught in great numbers (generally gaffed against the law) by service personnel. Many fish were wasted and left indiscriminately lying on the banks and bottom of the stream to die and rot. It was a sorry sight and a sad commentary on American "sportsmanship." Individuals were catching as high as 50 to 75 large salmon each to "take home" and smoke and eat. I wonder! The whole unhappy mess was stopped abruptly on August 16 by an executive order from the NOB Com Officer. Robbinsdale, Minnesota.

Nesting data should be collected during the summer as usual, and submitted to the editors at the Museum of Natural History, University of Minnesota, by September 15, 1945.

Winter Bird Count: 1944

compiled by

William H. Longley

The 1944 Winter Bird Count goes down in the record as another "average" winter season from the view of weather and the kind and number of birds present and accounted for. The nine reports received listed 4,668 individuals of 52 species found during the last week of December. Thirty-five observers took part. The "vital statistics" of each of the trips are listed in the following paragraphs and refer to the table.

Duluth:

(1) Five members of the Lakeview Branch of the Duluth Bird Club were out on December 27 in Lester Park and in the vicinity of the mouth of the Lester River. The temperature was 12°F., and a wind of 12 m.p.h. prevailed. The trip lasted from 9:30 a.m. to 1:30 p.m., with overcast skies clearing at 11:30.

(2) Dr. Olga Lakela and Mary Ellwell made several trips, covering an area from Fond du Lac to the Encampment River, between the 24th and 30th of December. The temperature varied then from 10° to 30°F.

St. Cloud:

Members of the St. Cloud Bird Club counted the birds in the vicinity of the State Teachers College and on the islands in the Mississippi just south of the college. They were out from 1 to 5:30 p.m. on December 29. The temperature was -20°F. Taking part were: George Friedrich, Nestor Heimenz, Mrs. A. J. Trainor, Mrs. Henry Plute, Miss Loretta Rosenberger, and Connie and Mary Jane Stelzig.

St. Joseph:

Sister Estelle of the College of St.

Benedict counted the birds on the campus of that college on December 28.

Minneapolis:

(1) The Minneapolis Bird Club members once again spent their time along the Mississippi River from Camden Park to Coon Creek. The day, December 30, was heavily overcast with intermittent misting and a temperature of 31°F. The observers were out from 9 a.m. to 4:30 p.m. They were: John S. D. Clark, Joan Clark, Lois Barnett, Rhoda Green, Helen Towle, Severena Holmberg, Florence Nelson, Bruce Auger, Russell Hofstead, and Wm. H. Longley.

(2) Theodore Wirth Park was covered from 10 a.m. to 4:30 p.m. on December 27, by the Minneapolis Audubon Society members, Miss Lulu May Aler, Mrs. E. H. Jensen, and Mrs. Lloyd Steirly. The day was fair; temperature 15° to 23°F.; wind, 15 m.p.h., North.

(3) Brother Hubert Lewis, on December 26, followed the Mississippi from Coon Rapids to Camden Park, from 11 a.m. to 6 p.m. The weather was clear, 0° to 11°F.

St. Paul

(1) Brother Hubert reports on four counts made near this city. He was accompanied by Brothers I. Vincent and J. Pius, and by Frank Ostrowski, Thomas Meyer, and Charles Reinhart. The first trip was to Pigs Eye Island in the Mississippi on December 24. The weather, clear, 10° to 16°F., the time 1 to 7 p.m.

(2) On December 27 nearly the same vicinity was covered, more exactly, the river bottomlands below the

city. Clear weather of 10° to 14°F., the time 1 to 6 p.m.

(3) On December 28 the trip was to the pine-grown area at Lake Vadnais. Clear weather of -3° to 10°F., the time 9:30 a.m. to 4:30 p.m.

(4) The fourth trip was from Fort Snelling to Cedar Avenue along the Minnesota River. Cloudy weather of 30°F., the time 9 a.m. to 6:30 p.m.

(5) A. C. Rosenwinkel censused the area of Mounds Park, the State Fish

Hatchery, and Pigs Eye Island near St. Paul on December 27, from 9:30 a.m. to 3:00 p.m. The sky was overcast until 10 a.m., the wind 10 m.p.h., the temperature 15° to 25°F.

(6) Also on the 27th, Bruce Auger, Russell Hofstead, and Wm. R. Longley hiked from Pine Bend to Inver Grove along the river from 8:30 a.m. to 3:00 p.m. The sky was overcast until 10 a.m., the wind 10 m.p.h., the temperature 15° to 25°F.

| | Duluth (Lakeview) | Mpls. (Aud. Soc.) | Duluth (D.B.C.) | Mpls. Bro. Hubert | St. Cloud | St. Paul Bro. Hubert | St. Joseph | St. Paul Rosenwinkel | Mpls. (M.B.C.) | Pine Bend |
|--------------------------|----------------------|----------------------|--------------------|----------------------|-----------|-------------------------|------------|-------------------------|-------------------|-----------|
| Mallard | | | | 1 | 263 | | | 11 | | 8 |
| Black Duck | | | | | 11 | | | | | |
| Baldpate | | | | | 1 | | | | | |
| Shoveler | | | | | 2 | | | | | |
| Ringneck | | | | | 14 | | | | | |
| Canvasback | | | | | 2 | | | | | |
| Am. Goldeneye | 16 | | 93 | | 5 | 373 | | | 10 | 1 |
| White-winged Scoter | | | | | 4 | 4 | | | | |
| American Merganser | | | 4 | | 15 | | | | | |
| Cooper's Hawk | | | | | | | | | | 1 |
| Red-tailed Hawk | | | | | | | | | | 1 |
| Sparrow Hawk | | | | | | 1 | | 1 | | |
| Ruffed Grouse | | | 1 | | | | | | | |
| Pheasant | | 19 | | 2 | 2 | 12 | | 15 | 14 | 1 |
| Coot | | | | | | 2 | | | | |
| Wilson's Snipe | | | | 1 | | | | 2 | | |
| Glaucous Gull | | | 3 | | | | | | | |
| Herring Gull | 2 | | 281 | | | 1 | | | | |
| Screech Owl | | | | | | 1 | | | 1 | |
| Great Horned Owl | | | 1 | | 1 | 2 | | | | |
| Long-eared Owl | | | | | | 1 | | | | |
| Saw-whet Owl | 1 | | | | | 1 | | | | |
| Kingfisher | | | | | | 1 | | | | |
| Pileated Woodpecker | | | 1 | | | | | | | |
| Red-bellied Woodpecker | | | | | | 2 | | | | |
| Hairy Woodpecker | 1 | 2 | 2 | | | 2 | | 2 | 7 | 2 |
| Downy Woodpecker | 3 | 3 | 30 | 2 | 1 | 17 | 2 | 2 | 3 | 5 |
| Arctic 3-toed Woodpecker | | | 1 | | | | | | | |
| Blue Jay | | 15 | 2 | 4 | 2 | 10 | 6 | 3 | 26 | 5 |
| Raven | | | 2 | | | | | | | |
| Crow | | | | | | 7 | | 2 | 4 | 1 |
| Black-capped Chickadee | | 125 | 7 | 2 | 25 | 38 | 4 | 4 | 2 | 19 |
| Hudsonian Chickadee | | | | | | 2 | | | | |
| White-breasted Nuthatch | | 6 | | 1 | 1 | 24 | 2 | 3 | 13 | 8 |
| Red-breasted Nuthatch | | | | | | 1 | | | | |
| Brown Creeper | | 4 | | | 15 | 6 | 1 | | 1 | |
| Robin | 8 | 2 | 25 | | | | | | | |
| Golden-crowned Kinglet | | | | | | 3 | 3 | | | |
| Northern Shrike | | | | | | 1 | | | | |
| Starling | 50 | | 28 | 1 | 3 | 1 | 16 | | 378 | 17 |
| English Sparrow | 5 | 60 | | 60 | | 269 | | | 221 | 120 |
| Red-winged Blackbird | | | | | | 1 | | | | 7 |
| Cardinal | | 4 | | 4 | 2 | 8 | | 5 | 4 | 12 |
| Purple Finch | | | | | | 5 | | | | |
| Redpoll | | | 27 | | | 1 | | 8 | 5 | |
| Pine Siskin | 1 | | 3 | | | | | 4 | | |
| Goldfinch | | 1 | | | 100 | | 20 | | 1 | |
| Red Crossbill | | | 28 | | | | | | | |
| Slate-colored Junco | | 20 | 2 | 4 | 15 | 41 | | 30 | 31 | 38 |
| Tree Sparrow | | 6 | | 35 | 25 | 117 | | 50 | 13 | 20 |
| White-throated Sparrow | | | | | | 4 | | | | |
| Snow Bunting | | | 10 | | | | | | | |
| Number of Species | 9 | 14 | 19 | 13 | 14 | 37 | 9 | 15 | 16 | 17 |
| Number of Observers | 5 | 3 | 2 | 1 | 7 | 6 | 1 | 1 | 10 | 3 |

Observations On Bird Life At The College Of St. Benedict

by

Sister Estelle Nordick, O.S.B.

The College of St. Benedict at St. Joseph, Minnesota, is located in open rolling farm country that is dotted with woods and lakes. On the two-hundred-acre grounds of the college a variety of natural features attracts various kinds of birds. Included are a forty-acre wood lot, an open meadow, farm and pasture lands, a farm yard, a few marshes and swamps and a small lake. About one half of the lake is bordered by a dense thicket of shrubs and young trees; part of it is shallow and swampy with a heavy growth of vegetation; the rest of it is deep and has an open shore line. During the summer the black tern, American bittern, great blue heron, red-winged and yellow-headed blackbirds, belted kingfisher, sora, and pied-billed grebe may be seen here. During the spring and fall migration, herring and ring-billed gulls and common terns share the water with ducks that stop en route. The ducks seen there include mallards, pintails, lesser scaup, blue- and green-winged teals, and the wood duck. Last spring on April 6, a flock of more than 100 Canada geese was seen.

The wooded area adjoining the lake consists mainly of deciduous trees. It varies considerably as there are large open spaces as well as densely wooded sections. During the last ten years pine, spruce and cedars have been planted in the clearings and the more open spaces. Around these open spaces are found bluebirds, rose-breasted grosbeaks, least flycatchers and scarlet

tanagers, together with the vireos, oven-bird, kingbirds, black- and yellow-billed cuckoos and, in the denser portions of the wood, the crested flycatcher and the wood pewee. Ruffed grouse and ring-necked pheasants may be seen frequently, and occasionally, broad-winged hawks appear.

Sparrows to be found in the open field are the field, vesper and song. This habitat is shared with the prairie horned lark, dickcissel, meadowlark, cowbirds, grackle, blackbirds, and northern shrike. Occasionally sharp-shinned and sparrow hawks venture into the poultry yards; marsh hawks can be seen daily flying low over the potato and corn fields while the red-tailed lazily soars overhead.

Bird life flourishes in each of these habitats fairly undisturbed. These grounds are closed to hunters; there are no small boys around who at sight of a bird's nest feel it their bounden duty to climb up and destroy it; that worst enemy of bird life, the domestic cat, finds no hospitality there. However, since these natural habitats are at a little distance from the college, we tried to attract birds to the grounds immediately surrounding the buildings. This was done by placing bird baths and carefully tending them throughout the summer. We made bird houses and mounted them in various spots. Several of the Sisters provided food daily for birds that ventured near. We planted a variety of trees and shrubs that, now since they are well

grown, furnish natural food for the birds throughout the year. Interest in bird life has been increasing steadily on our campus, and we like to think of our grounds as a sanctuary where bird life is protected and where it will continue to flourish.

In the twelve-month period from June 1, 1943, to June 1, 1944, where years ago very few birds made their appearance, 120 species were seen and recognized. Seventy of these were summer residents only; four were winter visitors, twelve were permanent residents, and 34 were migrants.

Our permanent residents included the ever-present English sparrow, blue jays, about 20 starlings that in winter were always to be found near the barns, a flock of goldfinches that found food in winter near the strawstacks, white- and red-breasted nuthatches, and downy and hairy woodpeckers. The black-capped chickadees were common in the rows of scrub pine where they busily examined the open cones for seeds. At other times they were to be seen in the red cedars. Last winter (1943-44) the Hudsonian chickadees were common in these same trees during December and January. At times they were in the company of the black-capped chickadees; at other times they were alone. This winter (1944-45) none were noticed.

The common redpoll has been with us each winter arriving during the first week of November and leaving at about the middle of April. On the campus they are usually to be found in a row of spruce, pine and arbor vitae that was planted as a windbreak for the vineyard. At the beginning of April of each year their numbers decreased, and by April 15 all had left the campus. On April 12 of last year a large flock, a hundred or more, was to be seen in a tamarack swamp about half a mile away.

Bohemian waxwings did not appear this winter, but a few were seen on the campus on April 15. Last year (1944) a large flock arrived on February 10 and remained for a two-week period when they were constantly in the red cedar trees. This year a small flock of cedar waxwings wintered on the campus living largely on the fruits of the hackberry, basswood and red cedar. During the summer they partook of most of the fruits as they ripened, but they seemed to prefer those of the honeysuckle and the mulberry. Any mere human wishing to taste a mulberry ripened on one of our four small trees had to contend with the waxwings, and unless he resorted to some method of keeping them away would never know the taste of ripe mulberries.

Evening grosbeaks first made their appearance in November, 1941, when one male spent a few days with us. The following winter a pair was seen at intervals, and last winter three pairs stayed with us from December 10 to March 23. Their diet during that time, according to our observations, consisted mostly of the berries of the red cedar and the seeds of the honey locust. They spent hours at a time under the latter tree cracking the pods to get at the seeds.

The first birds to appear after the cold of winter are the prairie horned larks that find food in the barnyards and pastures. Soon the caw of the crow resounds followed by the call of the killdeer. Large flocks of slate-colored juncos and pine siskins spend several weeks with us both in spring and fall. The same is true of the brown creepers, white-throated and white-crowned sparrows, and both the golden- and ruby-crowned kinglets.

Warblers seen in spring include the black-poll, Nashville, Tennessee, black and white, black-throated green, bay-

breasted, the more colorful myrtle, Canada, magnolia, and Blackburnian. Four seen in spring migrations but not in fall are the Cape May, golden-winged, palm, and pine. The red-eyed towhee and the winter wren have been seen both in spring and fall migratory flights flitting from one low shrub to another or feeding under spruce and pine trees.

During last spring several pairs of ruby-throated hummingbirds were attracted by the flowers of the honeysuckle, golden currant, and lilac. A cloister walk bordered by lilac bushes furnished an excellent vantage point to watch these tiny creatures sucking the nectar of the lilac blossoms. As summer progressed they were seen in the flower garden where their number was rivalled by the goldfinches that ruthlessly tore at the bachelor buttons and other composites in bloom there. Catbirds were usually found in elderberry, honeysuckle, and the flowering dogwoods; vireos, yellow warblers, and redstarts preferred the orchard. Other summer birds now common about our buildings are the Baltimore oriole, brown thrashers, Arkansas kingbird, the flicker and other woodpeckers, night-hawks, wrens, veery, sparrows, and swallows. We see the barn, tree and bank swallows; purple martins nest in apartment houses built for them; and a large flock of chimney swifts entertain us each spring and fall with their nightly "going to bed" performance over a large no-longer-used chimney.

Purple finches find plenty of their favorite foods: the berries of red cedar, the buds and flowers of the elm, maple and cottonwood poplar. It was

fascinating to watch them cling to the branch of the cottonwood, grasp a catkin and wantonly tear it to pieces. At least one pair of purple finches has been nesting on our grounds. Twice we witnessed a courting dance; the first time, crouched under a scrub pine about three feet away from the scene of action, we watched in silent interest for ten minutes. The second time, the birds were disturbed after a very few minutes, but we had seen enough to recognize it as the same display. It had some of the features of the Virginia reel as well as those of a schottische. Both male and female were on a level sandy patch of ground, the female quite composed while the male stood with crown feathers raised and wings outspread so that the primaries and secondaries were apart. Hopping toward her at a diagonal, he bowed and backed away. After repeating the performance she met him halfway; after that both bowed and backed away. Then they met, both faced the same way and hopped sidewise coming back to the original position. The male then exchanged places with the female and they hopped to the opposite side. They separated and the first movements were repeated. This was done again and again. In some instances they came close enough so that we might have touched them by moving the hand only slightly.

Attempts to attract birds to our campus have met with a measure of success sufficient to warrant our entertaining the hope that before too long we may truly speak of our grounds as St. Benedict's Bird Sanctuary. College of St. Benedict, St. Joseph, Minnesota.

Weights Of Some Minnesota Birds

by

William H. Marshall & Arnold B. Erickson

Health and proper weight frequently go hand in hand. A healthy bird, able to cope with the rigors of migration, inclement weather, and ever-waiting enemies, is usually the well-fed bird of optimum weight. It is of value, then, to know the average weight of all species of wild birds, because such knowledge gives us a yardstick for calculating bird welfare.

The following bird weights from files of the Division of Economic Zoology, University of Minnesota, were gathered over a fifteen-year period (1930-1944), by University staff members or students and by personnel of the Pittman Robertson Game Research Project 11-R, Minnesota Division of Game and Fish. R. T. King, G. A. Swanson, A. B. Erickson, L. A. Fried, C. E. Carlson, C. T. Rollings, L. A. Parker, and Marius Morse have recorded most of the data. A few co-workers also contributed.

Nearly all the birds had been shot and were weighed a short time after death. Some were wild-trapped and weighed alive. Still others were found freshly-killed by highway traffic or collision with man-made structures. Weights of captive, sick, diseased or starved birds have been excluded. Finally, records which indicated immaturity or lacked information on sex were discarded.

Weights are given in grams in all cases. Where an extensive series precluded the listing of individual records, the average weight in ounces is also

given. Values in grams may be computed to ounces by dividing by 28.35. For some species average weights for both sexes were calculated on a monthly basis. A uniform listing in the following order is followed: Species, month, sex, number of birds, average weight in grams, average weight in ounces, (in parenthesis), and the range of weights.

WHITE PELICAN

April
male — 5980
November
male — 4384

DOUBLE CRESTED CORMORANT

May
male — 12 female — 3
2414.5 (85.2) 2236.9 (80.7)
1984.5 — 2306.6 1757.7 — 2948.4
October
female — 2276

GREAT BLUE HERON

May
sex? — 9
2288.3 (80.7)
2074 — 2650

BLACK-CROWNED NIGHT HERON

May
male — 879, 1000
female — 764
sex? — 20
799.7 (28.2)
670 — 928
July
male 881, 779, 852
female — 701, 729, 751, 662, 877, 794

August
male — 766, 896, 874
female — 817, 680, 840

WHISTLING SWAN

April
male — 6267
November

male — 7200.9, 6577.2
female — 8391.6, 7247.6

MALLARD

August
female — 983, 908, 979
October
male — 1507
November
male — 818, 985, 1102

PINTAIL

July
female — 723.7
October
male — 768.5

BLUE-WINGED TEAL

June
male — 351

SHOVELLER

November
male — 600

WOOD DUCK

November
male — 628
female — 728

REDHEAD

November
male — 1040

RING-NECKED DUCK

October
male — 695.5, 505
female — 800

CANVASBACK

November
male — 1240

LESSER SCAUP

May
male — 677
June
female — 670, 670

AMERICAN GOLDENEYE

October
male — 1004, 1202

BUFFLEHEAD

October
male — 460.6, 490
female — 290.2

OLD SQUAW

February
female — 480

SURF SCOTER

October
male — 900

female — 800

RUDDY DUCK

October
female — 370

HOODED MERGANSER

November

male — 718

GOSHAWK

February
female — 1250

April

male — 586.5

November

male — 922

SHARP-SHINNED HAWK

August

male — 150

RED-TAILED HAWK

October

male — 11

925.9 (32.3)

750 — 1061

female — 18

975.3 (34.4)

728 — 1207

AMERICAN ROUGH-LEGGED HAWK

October

male — 758, 820, 728.7, 734.6, 705.4

female — 925.5

November

male — 731, 755.5 790.9

female — 985, 887.8, 923, 966.3, 908

GOLDEN EAGLE

November

female — 3998

BALD EAGLE

October

female — 3765

November

female — 5641.6

CANADA SPRUCE GROUSE

April

male — 502

May

female — 321, 359

November

female — 493

RUFFED GROUSE

January

male — 10

641.9 (22.6)

577.4 — 762.5

February

male — 14

597.9 (21.1)

566.3 — 682.9

March

male — 21

594.2 (21.0)

520.3 — 681.9

April

male — 4

617.0 (21.8)

586.0 — 652.0

May

male — 3

581.0 (20.5)

545.0 — 602.0

female — 10

564.2 (19.9)

513.2 — 620.9

female — 19

521.3 (18.4)

447.0 — 593.0

female — 17

534.4 (18.9)

450.0 — 645.3

female — 4

561.6 (19.8)

474.0 — 653.0

female — 6

560.3 (19.8)

546.5 — 585.5

| | | | |
|----------------------------|---------------|-------------------------------|---------------|
| 1361 — 1544 | 800 — 1270 | female — 161.7 | |
| April | | FRANKLIN'S GULL | |
| male — 29 | female — 9 | August | |
| 1308.4 (46.2) | 1117.2 (39.4) | male — 268.7 | |
| 1073 — 1518 | 991 — 1292 | MOURNING DOVE | |
| May | | August | |
| male — 9 | female — 7 | male — 14 | female — 5 |
| 1230.6 (43.4) | 1045.9 (36.9) | 115.4 (4.1) | 119.2 (4.2) |
| 1014 — 1379 | 1000 — 1147 | 103 — 139.4 | 104.7 — 135.6 |
| June | | September | |
| male — 60 | female — 3 | male — 12 | female — 2 |
| 1212.2 (42.8) | 905.0 (31.9) | 120.9 (4.3) | 104.4 (3.7) |
| 1053 — 1373 | 871 — 973 | 113 — 138.2 | 104 — 104.8 |
| July | | SCREECH OWL | |
| male — 12 | female — 6 | February | |
| 1156.1 (40.8) | 877.5 (31.0) | female — 173.5 | |
| 1002 — 1396 | 737 — 1023 | GREAT HORNED OWL | |
| August | | February | |
| male — 26 | female — 6 | male — 1190 | |
| 1221.9 (43.1) | 890.0 (29.0) | female — 1190 | |
| 1060 — 1484 | 780 — 1234 | October | |
| September | | female — 1148 | |
| male — 17 | female — 5 | November | |
| 1236.5 (43.6) | 869.2 (30.7) | female — 1345 | |
| 1066 — 1418 | 755 — 925 | SNOWY OWL | |
| October | | February | |
| male — 34 | female — 12 | male — 1560 | |
| 1184.2 (41.8) | 830.5 (29.3) | BARRED OWL | |
| 1009 — 1460 | 703 — 946 | Month ? | |
| November | | male — 757.2 | |
| male — 28 | female — 27 | female — 700 | |
| 1208.8 (42.6) | 913.3 (32.2) | SHORT-EARED OWL | |
| 1046 — 1442 | 706 — 1114 | October | |
| December | | female — 329.7 | |
| male — 17 | female — 10 | FLICKER | |
| 1237.2 (43.6) | 976.0 (34.4) | April | |
| 1064 — 1449 | 835 — 1054 | female — 141.5 | |
| Summation for all months | | June | |
| male — 248 | female — 108 | male — 172 | |
| 1230.9 (43.3) | 932.3 (32.9) | EASTERN KINGBIRD | |
| 1002 — 1591 | 706 — 1292 | June | |
| COOT | | male — 48 | |
| October | | female — 43.2 | |
| male — 600 | | CROW | |
| female — 516 | | March | |
| sex ? — 762 | | male — 615 | |
| WOODCOCK | | ROBIN | |
| April | | June | |
| female — 159 | | female — 81, 76.4 | |
| WILSON'S SNIPE | | GOLDEN-CROWNED KINGLET | |
| October — November | | June | |
| male — 27 | female — 22 | female — 5.5 | |
| 113.6 (4.0) | 118.9 (4.2) | RED-EYED VIREO | |
| 81.0 — 143.5 | 96.0 — 147.7 | June | |
| UPLAND PLOVER | | male — 19 | |
| July | | MYRTLE WARBLER | |
| female — 107.8 | | June | |
| GREATER YELLOW-LEGS | | male — 11 | |
| October | | | |
| male — 163.5 | | | |

May, 1945

PALM WARBLER

June
male — 10.5

RED-WINGED BLACKBIRD

June
female — 73.4

EASTERN COWBIRD

June
male — 50

SLATE-COLORED JUNCO

June
male — 18.7

WHITE-THROATED SPARROW

June
male — 26.7
female — 24.0, 26.3

LAPLAND LONGSPUR

October
female — 17.5

Division of Entomology and

Economic Zoology

St. Paul, 8, Minnesota

Paper No. 2239 Scientific Journal Series, Minnesota Agricultural Experiment Station, St. Paul.

NOTES OF INTEREST

MOODS OF LAKE SUPERIOR—The Lake has been frozen solid for a week, now. Unless we have a strong wind soon to break it up, the ice will probably stay till the spring break-up. The open water acts as an equalizer of temperatures in the winter. We speak of the cold winds off the lake during the rest of the year but not in the winter. Then our cold winds come from the northerly directions. The lake in its ever changing moods is always interesting. At this time of year we see gorgeous sunrises and the splendor is intensified by the reflections on the lake. In late spring we see soft, fleecy clouds of rose, changing to pink and lavender as the sun sinks low. On a calm evening their reflections are lovely on the water. At other times the water looks cold, gray, and forbidding. On stormy days its power is fascinating and awe inspiring. I love the lake in spite of the fact that it keeps us from having a real spring in Duluth. Close to the lake our flowers are a week or more later in opening than those on the hill away from it. However, we make up for it by not having frost in the fall for a couple of weeks after things farther from the lake have frozen. Mrs. Walter C. Olin, Duluth, Minnesota.

FROM 300 TO 3,000—The title of this article could have numerous meanings. From the state of Minnesota one could safely list about 300 species of birds. I started out over two years ago with some acquaintance with these as a background or stepping-stone. Since then my list of possible species has evolved into the fantastic number of approximately 3,000 species as a result of my travels with the 21st Bomber Squadron.

I am now on board a transport that shuttles back and forth between the many islands of the South Pacific Ocean. Before me lies a pile of some 114 type-written notes, single spaced, and carbon copies of each one. The duplication is a measure of security in case one or the other is lost. These notes were written as soon as possible after observations were made and later taken from my pocket notebook which is carried at all times. Many sketches, understood only by myself, are found here and there in the pages. All these are the results of my bird watching since leaving Minnesota.

Back in 1942 I left my native state with its 10,000 lakes to arrive in Mississippi. Here I found new birds as well as the familiar ones; black buzzards and turkey vultures, the gulls, ibis, and herons galore, while later toward fall the cardinals, titmice, bluebirds, catbirds, grackles, towhees, chickadees, and the mockingbirds became plentiful.

That winter I was much elated to be transferred to the state of Colorado. Here I ventured to the heights of 14,000 feet in the mountains to study the new birds and I had good results. Most important of these was the HISTORY OF THE WATER OUZEL which I was able to write on the life of this bird after six months of exploration, consisting of 28 trips into the Cheyenne Mountains and Pike's Peak region. It contains photographs and references dating back to 1878. Other birds typical of the territory and most welcomed to my personal list were: evening grosbeak, house, purple, and Cassin's finches, western tanager, vireo, Grinnell's jay, magpie, Clark's nutcracker, and the pink-sided and white-

winged juncos. In the near-by snow-fed lakes, I found the mallard, teal, and spoonbill. On the roads and prairies were the pheasant, grouse, quail, and road-runner. Eagles, swallows, and swifts took to the rocky cliffs and stone pillars of the famed "Garden of the Gods." I have many notes and numerous photographs of these birds and their nests.

Next I was moved to Nebraska where I found the marsh hawk conspicuous. Here in the corn fields this hawk found rodents most abundant. A few other hawks were noted, but the marsh hawk was present in exceptional numbers. Meadowlarks and the Arkansas kingbird were common and the killdeer I found always present where you find the meadowlark. The following winter my work took me to Texas where I found the dickcissel, various blackbirds, robins, and bluebirds in abundance. At night many owls were heard in the trees.

I next found that Florida offers tremendous opportunities to the ornithologist. My time was limited there but, nevertheless, well spent afield. Here I found the wood ibis on the incrdase; the coot in its winter home; many ducks including the mallard, spoonbill, blue- and green-winged teal, and the lesser scaup. The herring and other gulls were constantly mingling with them. Here I got better acquainted with the purple and the boat-tailed grackles. I was happy to see the bright-colored Florida cardinal which I frequently found fighting with the jays. It was too early to observe any waves of warblers migrating, but I did see many chats, titmice, and shrikes. Flycatchers were extremely common here in February.

My first venture outside of the continent was a fortunate one, being to Jamaica. In this Caribbean Sea area I was able to study a multitude of new species. I found the ani, blue, green, and grass quits, petchares or gray kingbirds, blue-headed tanagers, quail-doves, parrots, and lizard-eating cuckoos. The reference books I had along were unsuited, I found, and only after referring to the sketches and notes after coming back into the states was I able to identify many of them. I found many hummingbirds that I never realized existed. On an aerial flight, I observed the rare red-tailed Jamaican hawk far below me but still high above the tree tops. White-bellied dove, jan crow, gaylin banana quit, nightingale (a local name for the mockingbird), and Puerto Rican tree swallow swelled my list. I found my visit there really a pleasure and it proved entirely too short lived. The West Indies Antilles have instilled a desire in me to return to them someday—an ornithologist's paradise, it seemed to me.

The spinning wheel of fate next carried me to the state of Washington. Here I found a complete new menu of avian life to satisfy my growing appetite for more ornithology. Here in the spring were migrating thousands of geese and ducks. Bitterns and herons with sandpipers and gulls policed the sandy beaches. They dotted the sand like pins in a well-filled pin-cushion. I saw the dusky fox sparrow, red-eyed towhee, varied thrush, red-shafted flicker, and again new species of juncos were welcome sights to me. For the first time my eyes were opened to the many variations of the song sparrow. Here on the sea shore amongst the debri I found that form called the Oregon sooty song sparrow. From Cuba to Canada, Mexico to Washington, and in many interior states, I have observed this bird, each variety with a different shade of plumage as if for a protective coloring.

Next I crossed the Pacific Ocean in a transport and had a ring-side seat to observe what birds I could at sea. The gulls and albatross predominated over all

other species. The petrels were well represented as also were the boobies, terns, and the man-o-war birds.

In Hawaii, we were restricted to a small area. I was able to gather a few notes, however. Here I noticed many types of doves. They varied in color with blue-grey to black predominating, and in size from that like the Jamaican ground dove to those of our common domestic blue-bar pigeon. Red-faced cardinal-like birds and many types of finches were common. One interesting phase of my studies in ornithology has been to note the distribution of the English sparrow. Here on the docks in Hawaii I found it common with nests in low tree branches in a near-by park. True, this bird is being seen in places where least expected and where one might expect to see other birds. No gulls frequent the whole of the Hawaiian Islands.

For security reasons, no names or places or dates may be used at this time. I had to dispense with them in all of my correspondence. Later, when the notes compiled need not be censored, I will see that they are sent home. In Polynesia I was awakened to still another series of avian life. Here I found many entirely unrecognizable birds everywhere. So far I have been unable to obtain any English references or books on the birds of those areas. A few written in foreign languages I have purchased and they are of much help. My visits by plane do not enable me to make field trips unless we have a "lay over." Here in Polynesia I feel that I am stepping into another world of ornithology. Might not the finding of these birds be an inducement to any bird lover?: honeycreepers, frogmouths, rollers, emus, bustards, megapodes, skuas, hornbills, barbets, trogons, and nightjars.

I have thus, by my thirtieth birthday, had a rather wide sampling of the scope of the science of ornithology, and it has been my extreme pleasure to be able to study much of this while in the military service. It has helped much to start closing the gaps so numerous in my understanding of ornithology. Walter A. Jiracek, Minneapolis, Minnesota.

FIELD TRIP OF THE M.O.U., 1945—The Minnesota Ornithologists' Union held its annual meeting on May 19, at Duluth. The morning program was devoted to field observations of birds at Minnesota Point. At 8:00 a.m. 68 members and guests, including representatives from St. Paul, Minneapolis and Cloquet convened at the bus terminal, on Minnesota Avenue. The enthusiastic observers made an effort to cover the beached and the wooded sand ridge of the less settled region of the Point toward the Superior entry.

The time set for the meeting was at least a week too early for the height of the migration of the shore birds and warblers. However, the results were surprising, for fortunately the lake winds abated, the temperature moderated to a mean of 44 degrees F. and the sky with heavy clouds of early morning cleared toward early afternoon.

After the business meeting in the mid-afternoon, at least eight members were able to travel by a car to Denbigh in Gnesen Township, 14 mi. north of Duluth, to observe a nesting goshawk. This trip added 12 species to the compiled morning list of 82. Moreover, 8 additional species were recorded on Minnesota Point the following morning, May 20, by St. Paul-Minneapolis members and the writer, thus making the total list 102, as follows: loon, Holboell's grebe, double-crested cormorant, great blue heron, mallard, lesser scaup, American gold-

en-eye, white-winged scoter, red-breasted merganser, goshawk on nest, sharp-shinned hawk, marsh hawk, sparrow hawk, piping plover, semipalmated plover, killdeer, black-bellied plover, ruddy turnstone, spotted sandpiper, solitary sandpiper, red-backed sandpiper, sanderling, herring gull, ring-billed gull, Bonaparte's gull, common tern, black tern, whip-poor-will, chimney swift, belted kingfisher, flicker, hairy woodpecker, downy woodpecker, kingbird, least flycatcher, phoebe, horned lark, tree swallow, bank swallow, rough-winged swallow, barn swallow, cliff swallow (colony of 15 with 2 completed nests), purple martin, blue jay, crow, black-capped chickadee, white-breasted nuthatch, red-breasted nuthatch, brown creeper, house wren, winter wren, catbird, brown thrasher, robin, olive-backed thrush, gray-cheeked thrush, willow thrush, golden-crowned kinglet, ruby-crowned kinglet, cedar waxwing, starling, blue-headed vireo, Philadelphia vireo, black and white, golden-winged, Tennessee, orange-crowned, Nashville, yellow, magnolia, Cape May, myrtle, Blackburnian, chestnut-sided, and palm warblers, oven-bird, mourning warbler, northern yellow-throat, Wilson's warbler, redstart, English sparrow, eastern meadowlark, red-winged blackbird, Baltimore oriole, Brewer's blackbird, bronzed grackle, cowbird, purple finch, pine siskin, goldfinch, red crossbill, Savannah, vesper, chipping, clay-colored, Harris', white-crowned, white-throated, swamp, and song sparrows.

Seventeen species of warblers is the largest representation in a single family; next in order are the shorebirds and sparrows, fourteen and thirteen species, respectively. Whip-poor-will and golden-winged warbler are new records for the Point; winter wren and Philadelphia vireo are seldom seen. **Olga Lakela, Duluth, Minnesota.**

DULUTH BIRD CLUB OBSERVATIONS—A record number of 19 were out the afternoon of March 18 for a hike on Minnesota Park Point, our youngest member being nine years old. The temperature was about 35°, and a cold wind blew off the lake. We hoped to see many new arrivals, as Saturday had been warm and the field of ice was out in the lake. Species were few, but the companionship and ease of hiking on hardened sand made a pleasurable trip. Two dozen crows with much harangue congregated from the Point and Superior to harass a great horned owl, which was possibly leading them away from its nest. Other birds we heard or saw were: robins, two red-breasted nuthatches, one hairy woodpecker, purple finch, horned lark, and two American mergansers flying over, while near the aerial bridge were herring gulls, a few glaucous, and one Iceland gull. No sound of chick-a-dee again emphasized their scarcity as noted in Duluth this winter.

On Saturday, March 17, Dr. Olga Lakela saw two dozen goldfinches on the college campus—an unusual record for this early date. On March 25, Dr. Lakela, Molly Korgen, and I were on the Point by 9:30 a.m. despite a heavy fog. We recalled our state meeting field trip here in May, 1939, when birds were grounded by the fog. The temperature was about 45° F., the ice field filled the harbor on the lake side, but the bay was mostly open water. Around a hundred gulls sat on the ice near the aerial bridge and made a pretty sight as they flew up when disturbed by a couple of men. On the ice, and as they circled over, we counted about seven glaucous gulls and one Iceland gull. At the end of the bus line on the Point, spring birds greeted us. Flocks of slate-colored juncos and tree sparrows were everywhere, and red-winged blackbirds, purple finches, killdeers, song sparrows, robins, and one horned lark were singing. Most of these, includ-

ing a meadowlark, had been heard earlier in the week near Morgan Park when a March day reached an all-time high record of 72°F. Near the shore on the bay, we counted 16 American golden-eyes and a pair of hooded mergansers. More could be heard farther out, lost in the fog. Later, near Lester River on the north shore, there were 36 golden-eyes of which only six were females.

A month before, Dr. Lakela had observed old squaw ducks a little farther up the shore, and snow buntings on the point in early March. Of all the visitors from the north, flocks of pine siskins take the record for the winter. There was only one report of evening and pine grosbeaks. Two members had flickers visit their feeding trays. Another member took a colored slide picture of a Richardson's owl. On the whole, the birds in Duluth seemed scarce this winter. Evelyn A. Jones, Duluth, Minnesota.

OBSERVATIONS AT ITASCA PARK—On the weekend of May 18, 1945, Ralph Grant, Mille Lacs County agent, and I took a group of F.F.A. boys to Itasca State Park on an educational tour. While there I had an opportunity to do a little birding. The area birded was for the most part around the Elk Lake group camp and along Nicollet trail. The weather was cloudy and chilly.

This is a list of the birds I was able to identify: loon, pied-billed grebe, American bittern, great blue heron, mallard, wood duck, broad-winged hawk, ruffed grouse, spotted sandpiper, common tern, black tern, mourning dove, belted kingfisher, flicker, pileated woodpecker, yellow-bellied sapsucker, phoebe, least flycatcher, purple martin, blue jay, crow, black-capped chickadee, red-breasted nuthatch, white-breasted nuthatch, short-billed marsh wren, brown thrasher, robin, hermit thrush, olive-backed thrush, bluebird, blue-headed vireo, red-eyed vireo, black and white warbler, Nashville warbler, parula warbler, yellow warbler, magnolia warbler, myrtle warbler, black-throated green warbler, Blackburnian warbler, black-poll warbler, pine warbler, ovenbird, northern yellowthroat, Canada warbler, American redstart, western meadowlark, red-winged blackbird, Baltimore oriole, cowbird, rose-breasted grosbeak, indigo bunting, purple finch, pine siskin, goldfinch, slate-colored junco, chipping sparrow, white-throated sparrow, swamp sparrow, and song sparrow. Pershing Hofslund, Milaca, Minnesota.

- CALL NOTES -

At last Old Man Winter has acknowledged defeat and gone into retirement after a weary struggle with sprightly Miss Spring. The contest was at its height on May Day, when snow rested heavily on tender green foliage and gaily flowering tulips. "Winter lingering chills the lap of May," and so the warblers and other May migrants wisely delayed their arrival by a week or two—when the chills had been reduced to mere shivers.

Although out-of-season freezes and snow flurries are decidedly unpleasant and even disastrous, a Christmas present is welcome even in May. At least The Flicker is very happy about the \$25 which came as a gift from Lt. George Rysgaard, now in charge of a radar station in the Philippines. He is suggested using that amount for half-tone illustrations or for free subscriptions to The Flicker sent out to promote membership. Thank you, George!

This is a challenge to you amateur photographers, a summer project for you. We want some bird pictures to illustrate your articles and bird notes.

Have you been wondering about the bird skins used by the ornithology classes of Dr. Roberts? There are about 9000 skins in the regular Museum study collection, but only a section of these is handled by students.

The Museum library, originally the private library of Dr. Roberts, contains over a thousand bound volumes and many indexed numbered publications. It is now the property of the University but remains permanently in the Museum as a reference library only. Bird enthusiasts have probably

been chief mourners over the gas shortage. Another result of the war is the reduced day class in ornithology at the U. of M. There was no class at all in 1944 and only four members this year. However, the Evening Extension class of 37 this year—mostly older people from outside the University—is larger than usual.

Have you sometimes wondered about the distinguished visitors at the Museum? Dr. Roberts answered our query as follows: "On March 3 and 4 Mr. T. Donald Carter, Associate Curator of Recent Mammals, and Mr. James Perry Wilson, Staff Associate, Preparative Department, American Museum of Natural History, New York City, visited the Museum. Mr. Wilson paints backgrounds in the American Museum. They were very complimentary about the Minnesota Museum. They are particular friends of Mr. Jaques who, it developed, had directed them to our Museum. Also on the advice of Mr. Jaques they were on their way to Gunflint Lake on the Canadian Boundary to make sketches and collect materials for a Gray Wolf Group to be constructed at the American Museum. While at our Museum they attended the Sunday afternoon lecture which was by Dr. Rosendahl on Minnesota flowers."

Mr. and Mrs. Jaques, by the way, have been at the Museum since April and will probably remain until fall. Mr. Jaques will first paint a large background for a Sandhill Crane Group and then backgrounds for several other exhibits.

Are you interested in color films on bird life? The Bureau of Visual In-

struction at the University of Wisconsin has gathered some "marvels of photography and recording." Write W. A. Wittich, Acting Director.

We wonder what The Flicker would do without Wm. Longley's compilations of winter bird records and summer nesting data sent in by the different clubs. Each is an arduous task which few are willing to undertake, but this U. of M. freshman studying wildlife management has given many precious hours each season for several years. This month he has succeeded in presenting the information in a particularly readable table.

Much-travelled Wm. Marshall has taken Gus Swanson's place at the U. as Professor of Economic Zoology in charge of Wildlife Management Courses. His undergraduate work in forestry was taken at the Universities of California and Hawaii, but he received his Ph. D. at Michigan. Forest Service work has taken him to Arkansas and New England, and for eight years he was biologist with the Fish and Wildlife Service. We appreciate the work he has done with editor Arnold Erickson in preparing their current article on bird weights.

The article by Sister Estelle in this issue reflects her keen interest in birds although trees and garden flowers share in her enthusiasm. There are plenty of all three at the College of St. Benedict, St. Joseph, Minnesota, where she took some of her undergraduate work and where she now teaches Biology and Histology. The rest of her undergraduate courses were taken at the U. of M. and her graduate work at Marquette University.

Sgt. Walter J. Jiracek, the author of "From 300 to 3,000," was a member of Minnesota Museum of Natural History's extension ornithology class in

1941. At that time he and his brother operated a photographic shop in Minneapolis. On entering the army, his photographic experience immediately placed him in this work and he is now a technical sergeant in charge of photographic work on board a B-29 Superfortress operating in the S. W. Pacific.

A new contributor is Pershing Hofslund, high school teacher at Milaca, whose bird list made in Itasca State Park appears in this issue.

Marie Kennedy, of the Cloquet Bird Club, reports that four of their group attended the M.O.U. convention at Duluth: Among the club's winter activities have been book reviews. Librarian Kennedy recommends, among others, "Murmur of Wings" by Dubkin. Have you read it?

The Sanford sisters, Georgiana and Edith, have bought a house in Cloquet this year. They enjoy making the grounds attractive to the birds and reporting on their success at meetings of the Cloquet Club.

Thanks to Miss Severena Holmberg, teacher at Southwest High School, for the following news items of Minneapolis Bird Club members!

Miss Rhoda J. Green, who has been the Director of the Science Museum of the Minneapolis Public Library for the past year, has resigned and is now a member of the educational staff of the state Conservation Department. In addition to supervising the museum, Miss Green worked with the various clubs that compose the Minneapolis Science Museum Society with which the Minneapolis Bird Club is affiliated.

T/5 Neil Clark, a member of the Minneapolis Bird Club, is stationed at Oahu where he is an assistant to the supply sergeant in the 669th Field

Artillery Battalion.

SM 2/c Brad Gilbert, also a member of the Minneapolis Bird Club, is on an LCS ship somewhere in the South Pacific. The first ship he was on was torpedoed and sunk. He was one of the fortunate survivors.

Brad's brother, Y 1/c Luther Gilbert, has twice had a narrow escape on the ill-fated USS Franklin aircraft carrier. He was one of the crew who helped bring in the carrier recently, and is now at Brooklyn while it is being repaired. Both boys are sons of Luther B. Gilbert, president of the Minneapolis Bird Club.

Off with the old, on with the new! Dr. W. J. Breckenridge, curator of the Museum, was elected president of the M.O.U. to succeed Mary I. Elwell of Duluth. Other officers are Mrs. George W. Lehrke, vice-president, St. Cloud; Mrs. W. C. Olin, secretary, Duluth; and Mrs. I. A. Lupient, treasurer, Minneapolis.

Having served an unusually long term, the old officers should receive an extra pat on the back for their good work. To the new officers, welcome! "Call Notes" hopes to hear from you in succeeding issues. E. W. E.

MINNESOTA ORNITHOLOGISTS' UNION

Treasurer's Report December 31, 1944

Cash on hand, January 1, 1944\$ 105.19

Receipts

| | |
|------------------------------|--------|
| Books | 586.98 |
| Memberships | 177.30 |
| Sale of Extra Flickers | 10.00 |
| Reprints | 8.50 |

Disbursements

| | |
|------------------------------------|--------------------------|
| Books | \$ 394.75 |
| Expense Books | 17.55 |
| Reprints | 8.50 |
| Membership Rebate | .25 |
| Flicker, Publishing 4 Issues | 99.90 |
| Expense Flicker, Mailing | 8.32 |
| Expense, Banking | 4.53 |
| Office Supplies, Postage | 6.78 |
| Mimeographs | .60 |
| Total Receipts | <u>\$ 887.97</u> |
| Total Disbursements | <u>\$ 541.18</u> |
| Cash on Hand Dec. 31, 1944 | <u>346.79</u> |
| | <u>\$887.97 \$887.97</u> |
| Cash on Hand Dec. 31, 1944 | <u>\$ 346.79</u> |
| Investment in Books | <u>8.15</u> |
| | <u>\$ 354.94</u> |

Respectfully submitted,

Mrs. I. A. Lupient, Treasurer, M. O. U.

'Notice'

The deadline for manuscripts for the October, 1945, issue of THE FLICKER is September 15, 1945. At least a few members of the various clubs should try to submit notes and articles during the summer months.

THE FLICKER

VOLUME 17

OCTOBER, 1945

NUMBER 3



Published Quarterly by

THE

MINNESOTA ORNITHOLOGISTS' UNION

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, May, October and December

Edited by Arnold B. Erickson, University of Minnesota

Minneapolis, Minnesota

Twin Cities Regional Editor W. J. Breckenridge

St. Cloud Regional Editor Miss Monica Misho

Duluth Regional Editors Dr. Olga Lakela, Miss Evelyn Jones

THE FLICKER is sent to all members not in arrears for dues. Dues for all members, \$1.00 per annum, should be paid in advance to the treasurer.

All articles and communications for publications and exchanges should be addressed to the editor.

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THE FLICKER

VOLUME 17

OCTOBER, 1945

NUMBER 3

Effects of a Hail Storm on Pheasants and Other Wildlife

by

J. W. Kimball

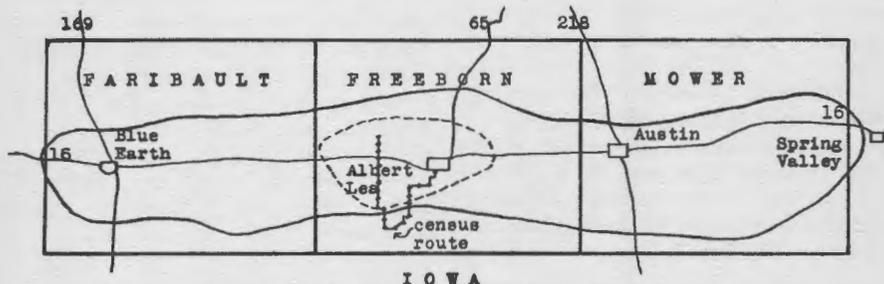


Fig. 1 AREA STRUCK BY ALBERT LEA HAIL STORM

———— Storm severe enough to destroy nests and kill song birds and some pheasants.

- - - - - Storm severe enough to kill adult pheasants and rabbits.

A severe hail storm swept through the central portion of Faribault, Freeborn, and Mower Counties (Fig. 1.) from west to east during the night of May 20, and the morning of May 21, 1945. Damage to windows, roofs, and crops was reported throughout this entire area which covered approximately 1100 square miles.

The most severe damage, however, occurred in Freeborn County in an area which covers about 130 square miles. Within this area the property loss was very high. Most of the glass on the west and north sides of buildings was broken, and many roofs were destroyed. One green house is reported to have had only two panes of glass left in the building. The hail in this area was accompanied by severe wind. Bruises on telephone poles, trees, roofs, etc, measured up to 1½ inches in diameter which indicated that the hailstones must have been very large. One

man reported measuring a stone which had a circumference of seven inches. By counting dents on car tops, roofs, and poles, it was determined that from 12 to 15 stones struck per square foot.

As very little seems to be known about the effects of such storms upon wildlife, an effort was made to ascertain the loss in adult birds and animals and the extent of nest destruction caused by the storm. It is known that a great number of adult song birds were killed within the hail area, and it seems inevitable that all nests of game and other birds which were not covered by the adult birds or other effective shelter must have been partially or entirely destroyed.

Several dead song birds were found by the writer, and most of the people questioned in Albert Lea, Blue Earth, and Austin reported that from one to eleven dead song birds were picked up in their yards following the hail. One

man found 11 dead robins in his yard alone. Another man counted four crippled birds in his yard and picked a dead robin from her nest. Beneath her body were the uninjured young which he reared and released. A third man found seven dead goldfinches in his yard. Sparrows, warblers, and cuckoos were other species reported killed.

A special study of pheasant mortality due to the hail storm was made by the writer. Fortunately two crowing count pheasant censuses, which covered an area partially within and partially outside the area that was later struck by the storm, had been run on April 24 and 25. The crowing count census is made by driving along a designated route before sunrise, stopping at every mile, and then recording during a two-minute listening period the number of cock pheasant crows or calls heard. These two counts

of April 24 and 25 were made over nearly the same route, but there were some variations in the number and location of the listening stops. However, the exact location of each stop had been recorded by a speedometer reading.

On May 24, 4 days after the storm, the crowing count census route run on April 24 (Route A) was run again, and on June 5, 15 days after the storm, the route run on May 25 (Route B) was repeated. In each case weather conditions were practically the same when the routes were run the first and second times. The results of these censuses are shown in Table No. 1 which gives the date of the census, route followed, number of listening stops, number of pheasant crows or calls heard, and the percentage of decrease in calls after the storm.

TABLE NO. 1

Showing the Number of Pheasant Calls
Recorded Along Two Routes Near Albert Lea, Minnesota,
Before and After the Hail Storm of May 20, 1945

A1 and B1 (parts of route A and B outside of hail area)
A2 and B2 (parts of route A and B inside of hail area)

| Date | Route | Number Stops | Number Calls | % Decrease After Storm |
|---------|-------|--------------|--------------|------------------------|
| 4-24-45 | A1 | 3 | 32 | |
| 5-24-45 | A1 | 3 | 32 | 0.0 |
| 4-24-45 | A2 | 13 | 288 | |
| 5-24-45 | A2 | 13 | 49 | 78.5 |
| 4-25-45 | B1 | 4 | 71 | |
| 6-6-45 | B1 | 4 | 52 | 26.9 |
| 4-25-45 | B2 | 13 | 320 | |
| 6-6-45 | B2 | 13 | 113 | 64.6 |

The following conclusions were drawn from the data presented in Table No. 1:

1. The average crowing intensity outside the hail-struck area along route A was the same four days after the storm as it had been before the storm.

2. The portions of this census route within and without the hail-struck

area were adjacent and both had the same heavy rains. Thus, it seems that hail must have been the only factor which caused a decrease of 78.5 per cent in pheasant crowing intensity within the area of hail.

3. As the second census was taken four days after the storm, it does not seem possible that this drop in crowing could have been caused by a temporary effect on the cock pheasants. Whether or not nest destruction effects cock crowing is not known. It seems most likely, however, that it could do nothing but stimulate crowing if it had any effect at all. It appears, therefore, that the only explanation for the 78.5 per cent decrease in crowing following the storm is that this percentage of cock pheasants was either killed by the hail or injured to the extent that breeding was not possible.

4. The average crowing intensity 15 days following the storm in the area

along route B outside of, but adjacent to the storm area, had decreased 26.9 per cent.

5. Crowing within the storm area was still very low but had risen from a decrease of 78.5 per cent to a decrease of 64.6 per cent.

6. Thus along route B, which covered essentially the same territory as route A, it was evident that 15 days after the storm there had been an influx of birds into the storm area from the surrounding territory.

The total decrease in crowing along both routes A and B, however, remained materially the same as is shown in Table No. 2.

TABLE No. 2
Showing the Average Calls Per Two-minute Period
Along Route A and B Inside and Outside of the Hail-struck Area
Before and After the Storm of May 20, 1945

| Time and Area | Route A | Route B |
|--|-------------|-------------|
| Before Storm and Outside Hail Area | 10.7 | 17.8 |
| Before Storm and Inside Hail Area | 17.5 | 24.6 |
| Totals | 28.2 | 42.4 |
| After Storm and Outside Hail Area | 10.7 | 13.0 |
| After Storm and Inside Hail Area | 3.8 | 8.7 |
| Totals | 14.5 | 21.7 |
| Total Decrease in Calls Outside And Inside Hail Area— | | |
| 4 Days After Storm | 48.6%* | |
| 16 Days After Storm | | 48.8%* |

*These percentages of decrease were obtained by subtracting the above totals 28.2 from 14.5 and 42.4 from 21.7 and dividing the remainder of the first calculation by 28.2 and the second by 42.4. In this case it is considered allowable to average averages because each of the original averages represents a separate area.

From Table No. 2 we see that while crowing increased somewhat within the hail struck area 15 days following the storm, the increase was almost exactly compensated for by a corresponding decrease of crowing in the surrounding

area. The void in the hail struck area is believed to have been partially restocked by pheasants from the surrounding range.

Crowing count censuses made before the hail storm of May 20, compared

with the same method of censusing areas of known population last year indicate that the range struck by hail had a total pheasant population (both sexes) of roughly 50 birds per square mile. If our crowing counts are giving us a true picture we may, therefore, have had an approximate reduction of 37 breeding pheasants per square mile. Of these perhaps 25 were killed outright, the others being crippled.

Since the storm in its most severe form covered an area of 130 square miles we may have lost in this area 3,250 pheasants killed, plus cripples which do not recover. Unfortunately, no estimate of pheasant loss is available for the much larger area covered by the storm in its less severe form. However, on the basis of the crowing count census an estimate of 5,000 to 10,000 pheasants killed by the Albert Lea hail storm should not be far wrong. Because these birds were killed at the low of the yearly cycle and represented the breeding population, the loss is much more severe than it would have been had the birds been killed in the fall.

As mentioned before, large numbers of song birds were found dead after the storm. Reports of one squirrel, three cottontail rabbits, and two pheasants were also obtained from farmers. In addition the writer found many dead song birds and one dead cottontail.

At first it may seem strange that if 5,000 to 10,000 pheasants were killed, more were not reported found dead. Several reasons for this are listed below.

1. Pheasants killed in the summer are much less likely to be found than those killed in the winter because they are not concentrated in winter cover but are evenly distributed over the range in the spring. They are not preserved by cold weather; they are less noticeable because they are hidden in vegetation instead of standing out

against a background of snow; and more scavengers and predators are present in the summer to dispose of them.

2. Pheasants killed by hail would not be found in open fields because they would have crawled into or under grass or weeds as the storm approached.

3. Because of heavy rains the farmers did not get into their fields for two or three weeks following the storm. This gave scavengers ample time to dispose of the birds before detected by man.

4. If 25 pheasants were killed per section there were only six dead pheasants on each farm. Thus, in the light of the above factors, it is not surprising that few farmers found dead pheasants.

The two dead pheasants (one cock and one hen) reported by one farmer were located by his dog in a clover patch. The writer spent several hours in the field with a dog which is interested only in live birds. The only dead rabbit located was ignored by the dog.

Five days were spent in the storm area during which time 335 miles were driven. Only four cocks and one hen were seen from the car. A cock and a hen were flushed by my dog and one hen was flushed from a nest. On April 24 and 25 (before the storm) parts of two days were spent in the same area. Eighteen cocks and seventeen hens were seen while driving 141 miles. Thus, before the storm 25 pheasants were seen from the car per hundred miles while an average of only 1½ pheasants were seen after the storm.

Three farmers reported having found pheasant nests which had been destroyed by the hail. Most of the farmers questioned, however, said they had not been in the fields since the storm. One farmer had been watching an albino pheasant which had nested on his farm. The nest was destroyed by the hail and neither he nor his neighbors had seen the bird since the storm.

During the 16th and 19th days following the storm many hours were spent in the field with a dog in search of pheasant nests. It was concluded that they were very scarce.

CONCLUSIONS

1. The Albert Lea hail storm of May 20, 1945, struck an area of 1100 square miles with sufficient force to partially or completely destroy all pheasant nests. A large number of adult pheasants were also undoubtedly killed in this area.

2. This storm struck an area of 130 square miles within the 1100 square miles area with a force which is believed to have killed or injured three-fourths of the adult pheasants in the area.

3. As determined by the crowing count census and supported by field and roadside observations, it is estimated that not less than 5,000 to 10,000 adult pheasants were killed by the Albert Lea hail storm. Minnesota Division of Game and Fish, St. Paul, Minnesota.

Observations On Birds And Mammals In The North Pacific

by

Marius Morse

On the night of September 21, 1944, we left Adak for Seattle on the navy tanker Tippecanoe. As I stood looking down into the dark sea from the fore-castle, I was surprised to see a light form or shape of some object, probably about 5 feet in diameter, moving slowly and noiselessly about in the surface water. Although I knew it must have been a type of phosphorescent sea animal, it reminded me of ghost stories from my childhood.

The third day at sea was Sunday, and the sky was almost cloudless. The choppy waters glistened in the sunlight, while showy whitecaps added the final touch of the beauty which surrounded us. Several miles ahead on the starboard beam, I observed several whales "spouting." The spout resembled a spray of water in the form of a column ten to fifteen feet high and about two feet wide. It appeared only momentarily as the whale surfaced, and then again in a few seconds some distance away. Scanning the surrounding waters more closely, I observed many whales spouting and was told these Bering Sea waters are considered "tops" as whale habitat.

I was very lucky to see two whales surface, dive, and spout within several hundred yards of the ship on the starboard side. They seemed to be huge and probably were at least 40 feet in length. Their forked tails were conspicuous when they dived.

It was interesting to note the bird life as the voyage progressed. During the first four days there were a few puffins, probably the "horned" species;

then I saw no more of them. As nearly as I could tell, there were only three other species of water birds encountered on the entire trip. One of these was the stormy petrel, a small dark bird about as big as a purple martin. It is almost unbelievable that such a small bird can successfully survive the frequent storms that occur on the high seas. A few petrels were seen on the second and third days when we were within about 30 miles of the Islands. This species was characterized by a whitish area around the eye. Its flight, accomplished with rapid wing beats, was irregular and zig-zag, resembling that of a bat. I saw several individuals in flight and in the water. They seemed very small for a sea bird—only 7 to 8 inches in length.

The third day out, as I stood on the fan-tail, watching the sea and the ship's wake, a petrel suddenly appeared from nowhere flying towards the ship from aft of the stern. It flew in a zig-zag course directly into a bulkhead on the stern of our ship, fell lightly to the deck, and fluttered off into the air. A second and third time this was repeated and I couldn't help but think the bird must have wanted a ride. But why it bumped the bulkhead each time I never knew. The last time this occurred, the bird paused momentarily, and I moved over to try and pick it up and came within inches before the bird managed to wiggle awkwardly over the deck and into the air.

The most common water bird on our whole trip was a species which may have been the black-footed albatross.

These birds were very common away from land and followed in the ship's wake all day long, seeking scraps of food thrown overboard at irregular intervals. Except for the measurements, which I can only estimate, Peterson's Field Guide of Western Birds describes the species I observed to a "T." According to the Guide the black-footed albatross is 29 to 36 inches long, with a wingspread of seven feet. The birds seemed to me to be noticeably shorter, with a wingspread of not over six feet, though these guesses could easily have been in error since it is easy to misjudge dimensions over water.

At any rate, these birds were large and had a great wing span. The wings and back were dark and the rest of the body was somewhat lighter. The wing tips, tail, legs, and feet were black and the bill yellowish-brown. A small white area just short of the wing tip was conspicuous at close range. A white facial area was distinctive, and some birds had the upper and lower tail coverts and rump white, while others showed white only below. Still others, possibly immature birds, had no white in the rump or tail coverts. Those having white coverts seemed to comprise the bulk of all individuals seen the first half of the trip, but the all dark birds became more common towards the end of the voyage. If the latter were young or immature birds, the indication is that breeding sites were probably nearer the ocean course sailed by us during the last half of the trip.

The ease and grace with which these famous birds soar, glide, sail, and fly back and forth in the ship's wake is almost unbelievable. They fly tirelessly all day long, pausing to alight in the water only when attracted by a morsel of food which their keen eyes rarely miss. It is a sight to behold the way these birds swerve and bank over the waves and white caps. Their wing tips seem to miss the water time and again by only the fraction of an inch,

yet I never once saw one touch the water. I watched them glide in and out of the troughs of the huge waves, over the crests, disappearing behind a huge wall of sea water, then suddenly reappearing. Their narrow pointed wings, seemingly disproportionately long in comparison to their body length, appear to remain motionless or to twitch only slightly as flight continues on and on. Only occasionally are a few flaps of the powerful wings resorted to, yet the albatross maneuvers into and out of the wind currents so skillfully and perfectly that it is able to maintain a forward movement and keep up with a ship. I have watched a bird sail and glide several minutes at a time against a fairly stiff wind, never once flapping its wings, yet maintaining its relative position 50 to 300 feet aft of the ship with no difficulty whatsoever. The albatross truly puts a gull's graceful flight to shame.

It is amazing also what a rare sense of vision the albatross possesses. Though it often soars and glides as high as 40 to 50 feet above the water, particles of food in the foam and waves seldom pass by unnoticed. Even as small a piece of food as a quarter slice of bread is spotted by these "eagle-eyed" birds and gobbled up. The real spectacle, however, comes when a pail of garbage is cast overboard. The food is spotted at once and down drops one bird, then another and another until perhaps ten or more are "talking" and gobbling food bits as fast as they can. They may be eating for several minutes during which time the ship has moved a half mile or more. To catch up, they wing their way rapidly up the wake of the ship with fairly regular wing beats, then again begin their soaring antics.

It is really amusing how clever they are in distinguishing food from paper, rags, colorful objects or other things of a non-edible nature thrown into the sea. Seldom do they miss an identification. They may swoop down to within

a foot or more of the water's surface to inspect the object, but unless it is actually food, up they sail again with no hesitation.

A curious phase of their antics is the landing and the take-off. The instant food is spotted the black legs and webbed feet, usually extended straight back an inch or two beyond the tail, "shoot" downward; the poised wings swing into motion to stop all forward movement; the neck takes on a conspicuous curvature and the head points downward—and down drops the albatross into the water, landing daintily and with upstretched wings which are held arched over the body for a few seconds before being lowered to the body.

The "take-off" is simply amazing! The bird faces into the wind, lifts its wings and without any apparent flapping of wings, surges forward by means of rapidly beating feet moving alternately upon the water's surface. Apparently the wings are set to provide lifting power but are not flapped at all the first six to ten feet while the bird's webbed feet are in action.

Anywhere from two to fifteen albatross or "goony birds" were seen following the ship at one time during the day. How they sleep at night is an interesting query, but they must rest floating in the open water.

A species of gull, all white except for black wing tips, was seen on several occasions. Another species lacking dark wing tips was observed, but without chance for identification. Both were about the size of a ring-billed gull. One individual appeared to be a really battle-scarred bird with tail practically missing, wings ragged, and both feet and legs presumably lacking. Survival of such a bird would seem to be something of a problem.

On the sixth day of the trip, I saw the first land bird since our departure. It was a Savannah sparrow which flew over the ship at a height of fifty feet

during a rain squall. When this observation was made, we were still about 300 miles from the nearest land, the Queen Charlotte Islands. This bird may have been migrating southward, perhaps from the Alaskan mainland. Although we were southeast of Kodiak when the bird was first seen, it is improbable that it came from there because the species is not known to nest at Kodiak. On the other hand, the bird could have been migrating from Alaska to Kodiak to the western coast of the United States. This is purely speculation, but the observation is an interesting record nonetheless and indicates how far from land such small birds will wander or migrate.

On the following day, I was really surprised and delighted to find a pair of Savannah sparrows using our ship as their home, at least temporarily. They wandered over the main deck, flitting from one place to another, occasionally being frightened by accident and flying a short distance away, only to regain their former position on the deck a few minutes later. The birds seemed quite tame and appeared to be in search of tidbits of food more than a free ride. They found the galley in no time and were seen picking up crumbs and searching out other morsels at or near the doorways and around the garbage can. I often approached to within ten or fifteen feet of them.

On one occasion one of the sparrows became so curious as to venture into a small opening in the main deck. Approaching cautiously, I peeked down and saw the bird perched unconcernedly on a steam pipe looking up at me only two feet away. This chance was all I needed to make sure my identification—a Savannah sparrow without question, probably the sub-species inhabiting the Aleutians.

When these observations were made on the seventh day, our ship was only 180 miles from the nearest land, The Queen Charlotte Islands and Van-

couver Island—both nearly equidistant. This is a long ways out on the ocean for such small birds to be, yet migration at the rate of 30 miles per hour would mean only a six-hour flight to land, which is very possible.

On the last day of the voyage the albatross became fewer in number as we approached the United States, until only two remained when radar indicated we were but 13 miles west of Cape Flattery. Shortly after, the albatross disappeared entirely but were replaced by 15 to 20 gulls which trailed in the ship's wake.

At about ten miles out a sparrow having outer white tail feathers flew close to me over the deck. I observed several murrelets about fifty miles from the Cape. As we approached to

within ten miles of the Cape, small flocks of dark-colored ducks were seen in flight at a distance. We observed land first about fifteen miles out.

We reached Cape Flattery at 1730, September 30. The sea was calm with only a few clouds in the sky, and the forested hills now clearly visible were beautiful. A species of grebe about the size of the horned grebe but mostly black above with black crown and white below was quite common in Puget Sound as we steamed towards Seattle. The early evening on the quiet Sound with a full moon shining from a clear sky was a sight not soon to be forgotten. We arrived in Port at Pier 91 at 0500 on October 1, 1944. Robbinsdale, Minnesota.

Winter Birds of the North Fork of the Flathead River, Montana

by

William H. Marshall

In the winter of 1942-1943, while employed in the Research Division of the U.S. Fish and Wildlife Service, I had the opportunity of acting as leader of the Montana Federal Aid Fur Survey Project 1-R of the Montana State Fish and Game Commission. From November 15 to April 4 a crew of six field-men and I walked approximately 3,800 miles, almost all on snowshoes, in the "North Fork Fur Management Area." This area lies in both Lincoln and Flathead Counties, being bounded on the east by Glacier National Park, the south by the Great Northern railway, the west by U.S. highway #93, and on the north by the International boundary. The field men, though untrained ornithologists, were asked to note birds seen. Most of them were very faithful and as I was in the field with them almost continuously, identifications were verified at every possible opportunity. Peterson's "Field Manual of the Birds of Western United States" was carried for identification purposes.

The winter was a severe one with several long periods of sub-zero weather (lowest recorded, -44°F . in January at Moran Ranger Station) and with abnormally deep snows. The personnel was divided into three crews which used twenty-one cabins scattered through the area as overnight stopping places.

The birds recorded throughout the winter were as follows:

Mallard

A few mallards remained on some warm springs and beaver ponds, which did not freeze over, near the Ford

Ranger Station throughout the winter. Records were: 1/9-20 birds, 1/12-4, 2/11-7, 2/14-6, 3/30-8.

American Golden-eye

A small number of these golden-eyes remained on open swift running waters of the North Fork all winter. Records of dates seen are as follows: 12/5-4 birds, 1/9-4, 1/10-3, 2/13-31, 3/27-1, 3/30-6.

American Merganser

One or two male mergansers were seen at a very deep hole with swift water which remained open at the junction of Cyclone Creek and the North Fork throughout the winter.

Goshawk

One bird was seen on December 1 near the Cyclone Guard Station.

Bald Eagle

Bald eagles were seen near the whitetail deer wintering areas at Big Creek Ranger Station as follows: 12/10-1 bird, 1/6-3, 2/2-2.

Golden Eagle

One golden eagle was seen soaring over a mule deer winter yard near the Cyclone Guard Station on January 26.

Blue Grouse

During the winter a total of twenty-three blue grouse were seen. All were at high elevations in sub-alpine types where Douglas fir or white bark pine were found.

Ruffed Grouse

Thirty-eight of these birds were observed — in every instance in or adjacent to willow and alder growths along streams.

Franklin's Grouse

Fourteen Franklin's grouse were seen during the winter. Ten were in dense lodgepole pine stands of the "1910 burn" near the Big Creek Ranger Station and four in a heavy Engleman spruce mature stand at the Weasel Creek Cabin.

Great Horned Owl

These owls were heard frequently through the winter and four were seen at widely separated places as follows: 1/10—1 bird, 2/14—2, 2/16—1.

Belted Kingfisher

One or two kingfishers apparently remained near the beaver ponds used by the mallards through the winter as one bird was seen there on January 1 and two on February 10.

Pileated Woodpecker

This bird was seen twice near the Big Creek Ranger Station on 12/13 and on 2/24.

Hairy Woodpecker

One hairy woodpecker was seen on December 5 and again on December 12 at the Big Creek Ranger Station.

Artic Three-toed Woodpecker

Four of these woodpeckers were observed at widely separated points as follows: 12/9—1 bird, 12/10—1, 1/8—1, 2/14—1.

Idaho Jay

These birds came to cabins for scraps as follows: 11/31—1 bird at Cyclone Park, 2/19—2 and 3/21—1 at Weasel Creek cabin.

Black-fronted Jay

A tie cutter on "Cedar Flats" on the North Fork fed four to six of these birds all winter. They were also seen at several places as follows. 2/1—2 birds, 2/2—1, 2/12—1, 2/14—3, 2/19—1, 3/21—2.

American Magpie

Raven

Magpies and ravens were seen throughout the winter at various places along the North Fork where the main

white tail deer concentrations were found.

Clarke's Nutcracker

These birds were seen individually on 2/12, 2/20, and 2/22 at high elevations in widely separated areas.

Mountain Chickadee

The chickadee was the most abundant bird in the area during the entire winter. Flocks usually numbered 12 to 15 birds and were noted on the following dates: 12/1, 12/2, 12/12, 1/10, 1/26, 2/16, 3/24, and 4/2.

Red-breasted Nuthatch

Only one group of 8 red-breasted nuthatches was noted during the winter near the Big Creek Ranger Station.

Dipper

Dippers remained along the open stretches of the North Fork throughout the winter being recorded on 12/5, 12/13, 1/5, 1/10, 2/20, and 3/30.

The use of a piece of floating ice as a "boat" by a dipper on February 20 near Big Creek Ranger Station was of unique interest. A piece of ice—extending three or four inches above the water and about two square feet in area—was floating in a fairly smooth but fast-moving stretch of the river. A dipper would ride this for fifteen or twenty feet, then dive into the water and apparently forage on the bottom, then "pop" out along the iceberg and walk up on it again. This was repeated several times until the bird, with an air of owning his particular "world," disappeared around a bend.

Townsend's Solitaire

One solitaire was seen on January 4 foraging at a bare overhanging bank formed by a deep road cut at Canyon Creek. Another was seen on January 24 at the Polebridge Ranger Station on the Glacier National Park side of the North Fork feeding on fruit of an arrow-wood.

Pine Grosbeak

Five birds were seen at Cyclone Guard Station on December 2. A flock of approximately 20 birds was seen near the Ford Ranger Station on January 9 and 21 while a single bird was noted in the same area on January 18 and February 17.

Hepburns Rosy Finch

Seven birds were seen near Trail Creek Post Office on November 19 and three near the Big Creek Ranger Station three days later. Two of these birds were collected to make sure of the identification. The fate of the skins is not known.

A most interesting opportunity to watch the first of the "flood of northward migrating birds" in this area occurred late in March. At that time several nights remained warm (30-32° F) and temperatures rose to 40° and 45° F during the day. On March 23, the third day of this warm period, the first of the spring arrivals was noted—Canada geese were heard flying through the fog and clouds. Six days later 36 were seen near the Moran Ranger Station. A flock of nearly the same size was seen again in this area on both April 1 and 3 when the spring thaw was in full swing.

Other birds arriving during this period and causing great comment by the few people "wintering" in the area were:

Red-tail Hawk

One bird seen near Big Creek Ranger Station on March 24.

Killdeer

One bird at the barn yards of the Ralph Day place near Polebridge Post Office on March 28.

Horned Lark

Eight birds on March 27 and three on March 28 at the Polebridge Post Office.

Robin

On March 26 an estimated 150 to 200 robins were seen flying very low beating against a north wind along the road 6 miles below Moran Ranger Station. The road here extends straight for several miles across a broad flat bench through dense lodgepole pines 15-20 feet in height and is the outstanding feature of the local landscape. On March 28 one bird was at Day's Ranch and eight were seen near the Ford Ranger Station two days later.

Mountain Bluebird

Four birds were seen at Polebridge Post Office on March 27.

Western Meadowlark

Three birds were seen at Polebridge Post Office and one at Ford Ranger Station on March 27. The next day 6 were seen at Polebridge Post Office and two days later one at Ford Ranger Station.

Red-winged Blackbird

One bird at Polebridge Post Office on March 24 and four near Ford Ranger Station on March 31.

Brewers Blackbird

One at Polebridge Post Office on March 28.

Junco

Three at Polebridge Post Office on March 28 and three the next day at Big Creek Ranger Station.

Snow Bunting

One male was seen at Polebridge Post Office on March 28 with the horned larks.

It will be noted that all of the small birds were reported from the Polebridge Post Office area. Here the Park Ranger, postmaster, one rancher, and their wives made up a small settlement. They each had several horses and the latter two a few cows which had been fed wild hay during the long winter. The barn yards were the only bare spots in the area during this short period and probably attracted most of these early migrants in the valley.

The birds listed have been compared with the "List of the birds of western Montana" prepared by Wedemeyer, Swan, and Rapreger (Field Notes on Wildlife, Vol. 1 (4): 1-13. USFS Missoula, Montana). Our list contains no additional species. We failed to find a considerable number of marsh and brush land birds which are listed permanent residents in this section of the state. These were, however, undoubtedly recorded in the warmer and lower reaches of the Flathead River. These

authors and F. M. Bailey (Wild Animals of Glacier National Park, Part 2, The Birds, 1918) also list several additional owls—notably the Arctic horned and snowy—as winter visitants. Bailey reports Barrows rather than American golden eye on the North Fork and both publications list the varied thrush as a wintering bird.

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History of The Minneapolis Bird Club

by

Severena C. Holmberg

The Minneapolis Bird Club grew out of a bird identification course that was given in the spring of 1938 to a group of Boy Scouts under the direction of Lt. Milton D. Thompson, USNR, former director of the public library museum. The following year the identification course was opened to both Boy and Girl Scouts, Campfire girls, and their leaders. A limited number of others were permitted to take the course. They became so enthusiastic about birds that someone suggested a club be organized and the study of birds be continued all the year around.

As a result, on May 9, 1939, a meeting was held at the museum of the public library for the purpose of organizing such a club to be known as the Minneapolis Bird Club. After a general discussion of the objectives, led by Milton Thompson, the following officers were elected: Don D. Wyatt, president; Mrs. E. S. Lofthus, secretary; Miss Helen Towle, treasurer; Luther B. Gilbert, program chairman.

Membership in the Minneapolis Bird Club was considered as a family membership. If one person joined, the entire family automatically became members and could attend, without further charge, all the activities of the Club. There were 13 charter memberships and 24 members as follows: Mr. and Mrs. Don D. Wyatt; Luther B. Gilbert; Mrs. Elsa Moberg; O. W. Christopher; Sterling Robson; Mr. and Mrs. Milton D. Thompson; Miss Agnes Hodapp; Miss Florence Nelson; Miss Helen Towle; Mr. and Mrs. Clyde C. Wilson, Alice and Howard; Miss Lena Holm; Mr. and Mrs. E. S. Lofthus, Beverly

and Donald; and Mr. and Mrs. Jeff Whitaker, Sally and Charles. Three of the charter members, Mr. Gilbert, Miss Towle, and Miss Nelson still belong to the Club. Miss Towle has served continuously as treasurer, part of the time doing the work of the secretary, too.

From this small group of 13 family memberships, the Club has grown until it has become the largest bird club in the State, numbering 106 family memberships, many of which include three and four or more persons.

It was not until March 19, 1940, however, that a formal constitution was adopted in which it was stated that the general purposes of this Club shall be to promote the study of birds and of bird life of the community, and to cooperate with the State and national authorities in the conservation and preservation of the wildlife of this State. Indoor meetings were to be held on the first and third Tuesday of each month from September until June at 7:30 p.m. in the museum of the Minneapolis public library. The evening hour was selected as the majority of the persons belonging were business and professional people who must work during the day. At this time a student membership, at half-price, was provided for minors who receive all the privileges of the club, but cannot vote or hold office. On October 6, 1942, the constitution was revised to conform to the constitution of the Minneapolis Science Museum Society of which the Bird Club is a member.

The organization of the Minneapolis Bird Club is unique in that it is now a member of a larger organization, or

governing body, the Minneapolis Science Museum Society. Therefore, the history of the Minneapolis Bird Club would be incomplete without briefly touching upon the development of the Museum Society.

Early in 1941, because the library budget was limited and WPA workers were soon to be withdrawn by the Government, the museum was faced with the possibility of being closed, and the Bird Club with the loss of its director and meeting place. If the museum was to be kept open it seemed necessary to build up an outside supporting group. A small nucleus of civic minded citizens, who were interested in helping the library, then began to meet regularly to draw up a plan for some central organization that would help keep the museum open and back up the self-run adult natural science clubs that had been meeting regularly, some for many years, at the museum to study minerals and gems, flowers, stars, fish, birds, geology, and archaeology.

In the spring of 1942, six of these clubs, namely, the Minneapolis Bird Club, the Minnesota Botanical Society, Minneapolis Amateur Astronomical Society, Minneapolis Aquarium Society, Minneapolis Mineral and Gem Club, and the Parents Club which sponsors the Field Naturalists' Club, decided to unite and form one central organization to be known as the Minneapolis Science Museum Society, an incorporated organization. On May 20, 1942, the constitution of this parent society was adopted. The purpose of this Society is to further the interest in the popular study of natural sciences, to foster the spirit of amateur research, and assist the people in Minneapolis and the surrounding communities, through its member clubs, to a greater and more intelligent appreciation of the out-of-doors. Part of each Club's dues is allocated to the Museum Society, and each member club has two representatives on the board of directors. The

present representatives are Wilbur L. Taylor, and John S. D. Clark, who is the president of the Society.

Membership in the Minneapolis Science Museum Society is now a prerequisite to membership in the Minneapolis Bird Club. This, however, entitles the entire family to also attend all regular lectures and programs presented at the museum by the other member clubs. Through the cooperation and combined efforts of all the clubs, the Museum Society was able to sponsor the Audubon Screen Tours last year and are presenting them again this year. A project such as this would be a stupendous responsibility, financially and otherwise, for one club alone. That's one of the advantages of one central organization.

The Minneapolis Bird Club has from the very beginning been affiliated with the Minnesota Ornithologists' Union and many of its members are very active in that organization. The Club has twice been honored by having one of its members elected to the presidency. In 1941-1942, Milton D. Thompson was the president, and this year, 1945-46, Dr. Walter J. Breckenridge is the president.

One of the best known and most popular features of the Bird Club is its bird identification course, *Adventures in Birdland*, which has been offered early in the spring of each year, except 1944, since the Club was organized. The course consists of six non-technical lectures, calling attention to the most outstanding field marks of more than two hundred of our spring birds, a review lesson, and three field trips. Skins, mounted birds, motion pictures, and slides are used to make the work more concrete. Members of the Club assist in directing the field trips making it possible to handle larger groups in the field. In 1943, when Milton Thompson entered the service of his country, the members of the board of directors gave the course themselves. In 1945, it was given by Dr.

Walter J. Breckenridge, and next spring it will again be given by Dr. Breckenridge, starting March 19.

This course is open to the public for a nominal fee which may be applied toward membership dues if the person joins the Club before the course ends. Scout and Campfire leaders are always admitted to these lectures free of charge in the hope that the knowledge gained will help them to instill in the youth of our community a better appreciation of bird life.

Another outstanding and popular program of the Bird Club is the annual showing from the Minneapolis Athenaeum collection of one of the library's most valued treasures, the elephant folio, or first edition, of John James Audubon's four volumes of *Birds of America*, valued by collectors at approximately \$15,000. The pages, which measure 39½ inches high and 29½ inches wide, require two persons to turn them. At other times during the year these valuable books must be gazed at through a glass case.

To acquaint the members with the bird calls, the Cornell University bird song records are used, and supplemented with slides of the birds heard on the records.

On December 30, 1939, the first winter bird count was taken covering the territory along both sides of the Mississippi from Camden, Minneapolis, to Anoka. Every year since, the members have worked this same area during Christmas week. The results are sent to THE FLICKER for publication and also to the National Audubon Society for their records. This year the bird count will be taken on December 29. Other field trips are held throughout the entire year and every week during the spring migration. Leon L. Smythe is at present the field trip chairman. The Club has its own printed check

list for use in the field.

In the summer when the bird population remains fairly stable, members watch for nests and keep careful records which are sent to this magazine for publication. To facilitate keeping nesting records, a mimeographed form, listing the required data, is distributed in the spring to those who desire it.

At each meeting for several years some member has given a five-minute talk on a bird of his own choosing. Last year the birds, that have been designated as official state birds, were selected for these talks. This led up to an unsuccessful attempt on the part of the Minneapolis Bird Club to have our State legislature make the eastern goldfinch, *spinus tristis tristis*, the official state bird.

The Club is this year attempting to acquaint the public with the new bird protection laws and at the October 2, meeting Kenneth Morrison, managing editor of the CONSERVATION VOLUNTEER, gave a talk on, *Conservation and Bird Protection*. This meeting was open to the public.

The following have served as presidents of the Minneapolis Bird Club: Don D. Wyatt, 1939-1940; Luther B. Gilbert, 1940-41; John S. D. Clark, 1941-42; Miss Severena C. Holmberg, 1942-43; Miss Amy Chambers, 1943-1944; Miss Severena C. Holmberg, 1944-1945; and Luther B. Gilbert, 1945-1946. Other officers this year are: Miss Severena C. Holmberg, vice president; Miss Florence Nelson, secretary; and Miss Helen Towle, treasurer.

The Minneapolis Bird Club will continue to grow, and to promote the study of birds and of bird life of the community and of the State, and perhaps in some small way it may help folks to sense more keenly the drama around us. Minneapolis, Minnesota.

A Message From the President of the Minnesota Ornithologists' Union

Dear M.O.U. Members:

Several M.O.U. members have insisted that I, as the new president, establish a precedent by writing a short report for *The Flicker* as a getting-acquainted letter for the M.O.U. membership. I maintain that the members probably much prefer Flicker articles of ornithological rather than biographical interest; but, since a president should be the servant of his constituents, such a letter follows.

One of the earliest recollections of my interest in birds was my struggle to identify the bird with the jingling song so commonly seen perching on the telephone wires along the Iowa roadsides. The pictures in the back of the dictionary were my only available references, and I finally concluded that the bird must be a "linnet". Later on, of course, I learned that it really was not this European bird but the well-known American dickcissel. My parents had no particular knowledge of, nor interest in, birds; but my mother especially was sympathetic toward my hobby, and "Reed's Bird Guide" soon appeared. This sufficed for several years, in fact, until I encountered Professor Homer R. Dill, Director of the Natural History Museum at the University of Iowa at Iowa City. His encouragement led me to register at that Institution, and the next five years were spent there (one year as Prof. Dill's assistant) where I majored in Museum Training in the Zoology Department. Just as I was approaching graduation, Prof. Dill heard of an opening as preparator at the Minnesota Museum of Natural History at the University of Minnesota; and after a personal interview with Dr. Thos. S. Roberts, the Director, I found myself with my first position. And here I am still in the same institution with only a change or two in the name of the position I occupy to correspond with my somewhat expanded duties.

My enthusiasm for bird study stayed with me through my undergraduate days, and I was pleased beyond measure to become associated with such congenial and genuinely interested bird men as Dr. Roberts and William Kilgore. And I can say that that congenial association still exists entirely unimpaired. A young bird enthusiast could hardly have dropped into a more inviting situation. Dr. Roberts, with his decades of experience and volumes of information about Minnesota birds, was on the verge of starting the final draft of his work "Birds of Minnesota." A few blanks still existed in his data which he was anxious to fill out, and I was assigned the task of accompanying Dr. Roberts and Mr. Kilgore on numerous field expeditions to various parts of the state to supply as nearly as possible this missing information. This work, together with the field work necessary to collect material and information for the construction of museum groups, gave me my chance to get acquainted with Minnesota birds, and I am still in the act of expanding that acquaintance.

I feel that at this point I should frankly state that heading organizations has never been my long suite, nor has it been my ambition. My work has been

carried on largely on an individual basis. However, while I occupy my present post in the M.O.U., I hope to direct its energies in the most productive channels. The maintaining and improving of *The Flicker* is perhaps the paramount task for the officers of our organization. May I point out that with the changing of editors as well as presidents, this is an excellent time for any of you to suggest changes you feel will improve the magazine. The executive and editorial boards will gladly receive such ideas and try to incorporate as many as the meager income of the organization will permit.

Speaking of income, the M.O.U. is certainly grateful to Dr. Gustav Swanson for the original suggestion, that we take on the sale of certain natural history books; and to Mrs. I. A. Lupient, who has handled so well most of the work connected with this program. As you noticed in the treasurer's report in the May, 1945, *Flicker*, our annual income has been enormously increased by this sale. So won't you please remember our book sales department when your Christmas shopping comes around?

With gasoline again available, the whole program of field observing will be expanding for most of our members, and this, of course, is the most absorbing part of bird study. Why would not this be an excellent time to try to interest more friends and acquaintances in bird watching and to organize some additional local clubs? Think this over seriously. You know that talking over experiences with other people with similar interests is half the fun of any hobby. The more members, the better *The Flicker*, and the more stimulating the magazine will be to prospective members.

Our newest committee, the Bird Protection Committee, has functioned admirably so far, being largely responsible for the recent protection extended to the hawks and owls in the State. This group is now undertaking some educational work about these birds, and opening up the subject of eliminating the mourning dove from the game bird list. Any ideas you may have that might come within the scope of activities of this committee, please submit them to the chairman, George W. Friedrich, State Teachers' College, St. Cloud; or Ken Morrison, Bureau of Information, Department of Conservation, State Office Building, St. Paul.

Our Constitution and By Laws, which appear in this issue, are in need of some revision. Will you please study these over and be ready with suggestions at our next annual meeting when these matters will come up?

And the matter of an annual spring meeting must be considered. Think over your local situation as to field trip and auditorium possibilities; and if any group wishes to extend an invitation for our 1946 meeting, the officers will be glad to receive it.

In the meantime, wishing you a minimum of flat tires and engine trouble in your antiquated transportation, and lots of harlequin ducks, eskimo curlews, and Kirtland's warblers on your field trips, I am,

Sincerely yours,
W. J. Breckenridge
President, M.O.U.

NOTES OF INTEREST

CASPIAN TERN AT ITASCA PARK—The addition of the Caspian tern to Swanson's list of "Summer Birds of Itasca Park", (Flicker 15: 25-28) was an interesting event of my first visit to Itasca Park. Early on the evening of June 19, 1945, Professors Brown and Rees of the Forestry School and myself observed a single bird as it coursed over Itasca Lake in quest of fish. The following morning a single bird—undoubtedly the same individual—was seen at fairly close range in full sunlight. Its size—judged equal to a large gull—large dark red bill, and manner of fishing made identification certain. Other birds observed on or over the lake that morning were: one osprey, one bald eagle, several loons, numerous black terns, and three mallard ducks.

Dr. Dawson reports seeing a Caspian tern on the lake again about two weeks later. There is no way of knowing if this was the same bird. The Caspian tern can be added to the list of Itasca State Park birds on the basis of these two records. William H. Marshall, University Farm, St. Paul, Minnesota.

WOODCOCK LIGHTS ON RIVER—On the afternoon of May 16, 1945, as we were walking along the banks of the Kettle River in the St. Croix State Park, Pine County, Minnesota, we flushed a female woodcock. With legs dangling, tail depressed, and wings fluttering she flew out over the river apparently not realizing immediately that we would be unable to follow her. Her strength seemed to be spent when she reached a point two-thirds across the river which we estimated as 50 yards broad. Here she fluttered into the swiftly-flowing Kettle apparently exhausted.

Much to our surprise she arose almost at once and headed back to the spot from which she had flushed. Passing over it, she gave several cries and tried to lure us further along the bank. At that moment one of us nearly stepped on a young woodcock "frozen" in the rank vegetation. Immediately when this bird was picked up three others attempted to run through the vegetation with their wings held away from their bodies in awkward fashion. Although their primaries were about an inch long, they were unable to fly. We judged that the chicks were about ten days old. The incubation period of the woodcock is approximately 21 days, hence the nest was probably established shortly before the middle of April. Arnold B. Erickson, William H. Marshall, and Lansing A. Parker, St. Paul, Minnesota.

FOUR RAILS ON A ROAD—According to my notes it happened on July 25 at 7:00 p.m. about two miles west of Albert Lea on Highway 16. The notes also say there was a corn field adjacent to a dry slough on the south side and a cemetery adjacent to another dry slough on the north side of the road.

Like all game biologists, I was recording all game birds seen during my travels. Seeing a bird on the highway some distance ahead of the car, I reached for my pencil to record a hen pheasant. But a second glance told me it wasn't a pheasant, or a chicken, or anything else I had ever seen crossing a highway. From all I can learn, king rails do not spend a lot of time walking down well-traveled state highways, but here to be sure was a king rail with three downy black chicks out on the pavement.

I stopped the car and saw the little family narrowly escape destruction by a cattle truck. More cars and trucks were coming so I jumped out of the car and tried to "run herd" on the foursome until traffic cleared. I managed to keep the young back, but their determined mother got past me.

There was a screech of sliding wheels and Mrs. King Rail took to the air. The black marks on the pavement indicated a loss of 50 cents worth of synthetic rubber, but nobody was dead yet. I could not help but think of how much more cleverly a hen pheasant would have handled the situation. In the first place she would not have been caught in this predicament because her young would have been kept concealed in tall vegetation until they were able to fly. However, if she had been caught in such a situation she would have uttered a startled "squeal" as she took to wing. At this warning signal each mottled brown chick would have darted under the nearest tuft of grass and "frozen" into the appearance of a dry leaf. And there it would have remained until a clucking call would inform it that danger had passed and mother had returned. Mother King Rail, on the other hand, took flight without leaving instructions, and the three long-legged black chicks scampering in the short grass were about as unconcealed as three rolling eight balls on a billiard table.

I got too close to one of the chicks, and he peeped like a baby chicken and ran up the bank. Finally the road was clear, and I let them continue their determined course toward their departed mother. I thought that, with their long legs, they would scoot across the road in a moment. But apparently king rails are too cautious to scoot into any unexplored area. They, like their mother, walked in a most peculiar manner. With neck outstretched and head turning from side to side, they walked very gingerly for a few steps as if they were extremely nearsighted and intent upon exploring the area immediately ahead. This movement was followed by a short rapid run of a few feet into the explored area, an abrupt stop, and a repetition of the same thing all over again. It took four or five of these undulations to get each bird across a strip of paved road. Meanwhile, cars were approaching and I was eating fingernails.

However, they made it across the highway with no mishap, and I figured all would be well as their mother was returning rapidly on foot. She walked down the side of the road where the young were and passed over their trail and within a few feet of them without finding them. What a benefit a mammalian nose would have been to her. Even if she had made an effort to call her young this story could have had a more satisfactory ending. But she uttered not a sound and crossed to the wrong side of the road.

By this time I was disgusted with the stupid bird and decided to leave before I was tempted to interfere further by trying to drive the mother to the young or the young to the mother.

While I was eating supper in Albert Lea my curiosity would give me no rest, so I went back to see what I could find. I didn't find any of the birds, but as none of them were squashed on the highway we may assume that they were united and lived happily every after. But it will be a mighty short "ever after" if that fool bird tries another highway crossing without somebody there to direct traffic for her. James W. Kimball, Minnesota Division of Game and Fish, St. Paul.

A SAPSUCKER IN DESTRUCTIVE MOOD—On May 14, 1945, my neighbor called up to tell me that a bird was about to ruin her beautiful birch tree, and

to ask what she could do about it. She also wanted to know what kind of a bird it was.

I told her that it was probably a sapsucker and that I didn't know what could be done; but that I would have a look at the situation, so I took Dr. Roberts' book under my arm and went over.

It was a sapsucker, but in an unnatural plumage, and it was doing a very thorough job on the tree. They had tried everything they could think of to frighten it away but got no response, so I told her that it would be best to kill the bird. I also asked for the bird.

Later she brought the bird to me and I found that it had no red markings. I then sent it to Dr. Roberts and asked for information.

Dr. Roberts replied as follows: "The bird is an adult female probably one year old, with no red on the crown because it is an example of certain females that get a black crown instead of the normally red crown. In this bird the crown is basically black striped lightly with fine yellowish white lines, an infrequent plumage easily misleading to one familiar only with the red-crowned birds." Nellie O. Wilson, Montevideo, Minnesota.

THE CARDINAL BIRD IN MONTEVIDEO, MINNESOTA—My first check for the cardinal bird in Montevideo was on April 9, 1934. A friend and I were on our way to Lagoon Park on a bird checking hike. When about two blocks from the park, we heard a wonderful bird whistle—most wonderful to us because we had never heard it. We found the bird in a willow thicket by the river bank on the edge of Lagoon Park. It was an adult male cardinal.

We waited quietly, listening and watching, until he flew into the woods. We followed, looking for him but we were unable to find him again.

On May 20, 1938, in Lagoon Park, I heard the whistled song of the cardinal, but was unable to locate the bird.

December 4, 1940. (A paragraph from my notebook). "This evening Weldon Simons brought a bird for me to identify—a young male cardinal. It had flown against their window and was stunned, so he put it in a paper sack and brought it to me. By the time he got here the bird had revived. When we opened the sack, it escaped and flew about the house for several minutes. It, at last, came to rest under a lamp shade and allowed me to catch it. Mr. Simons lives near Chinhinta Park, so he released it there."

All through the winter of 1941-42, a pair of cardinals fed in a yard not far from Lagoon Park. Mrs. Justice put cereals and crumbs under the bushes every morning. The birds came about 10:30 a.m. and ate.

In the spring of 1943, a pair of cardinals nested in Lincoln Parkway. They were seen by several people.

During the winter of 1943-44, a pair of cardinals stayed in Chinhinta Park. They fed at Mrs. Hart's feeding table almost every day. On the 31st of March, Mrs. Peterson and I saw the pair and heard the male bird sing.

On April 11, 1944, Dr. Wilson heard a cardinal sing in Lincoln Parkway.

April 21, 1944, a male cardinal examined all of the grapevine on our front porch. Afterward he sang in our tree-top.

May 5 and 6, 1944, a pair of cardinals investigated possibilities for a nesting site in the syringa bush and the grapevine. After that the male sang in our trees every day while the female kept quietly in the background until May 14, when the birds began building a nest in the grapevine over our front door. The

female worked on the nest during the morning hours until May 22. That day and the next she was on and off the nest many times.

On May 24 she settled down on the nest and appeared to be about to incubate. However, she was very timid and flew away every time anyone came to the door. The next day I saw the cardinals chasing a cowbird from the yard. Later we found a cowbird's egg on the cement walk below the nest, very thoroughly smashed. The cardinals then left our yard and we saw nothing of them for several days. Dr. Wilson borrowed a ladder and had a look at the nest. He said it was a very fine nest but it contained no eggs. Later the cardinals visited the nest several times and sometimes the male again sang in our tree-tops.

On July 9, 1944, the cardinals sang early on this morning and in the afternoon ate berries from our honey-suckle bush by the front porch. Through July the cardinal occasionally sang in our trees, either at dawn or at dusk. After July we saw nothing of them until November 7, when the male bird came to our seed box. The next day two birds came.

On December 1, a beautiful male cardinal came to our yard and ate berries from the wahoo bush.

On January 2, 1945, a pair of cardinals were here for an hour—in the syringa bush, at the seed cup for squash seeds, and in the grapevine on the east side of the porch. From that date on through the winter they came every day to feed. At 8:45 a.m. on January 5, the male cardinal was sitting on the seed cup pecking at the English sparrows, and he sent them flying away. On the morning of February 8, 1945, the cardinal began singing his spring song—a wonderful thing in mid-winter. From this day on he sang every morning.

Until April 5, 1945, when the two cardinals came together to feed, the female waited patiently in the background until the male was through eating. On this morning the male selected a fine seed and gallantly presented it to the female. He then found one for himself and they ate them together.

They are often in our yard to visit the grapevine and to sing in our trees, but they are not nesting here this year. I do not know how many cardinals there are in Montevideo. I have never seen more than two at a time. Nellie Ottman Wilson, Montevideo, Minnesota.

EDITOR—The above is of interest as showing the spread of the cardinal into this far western Minnesota River valley region.

OBSERVATIONS AT CLOQUET—About June 3, there were a dozen cedar waxwings in our old apple tree devouring petals as fast as they could pick them. I noticed two adult birds on one branch carrying on in strange fashion. First one picked a petal, then hopped one hop toward the other. That one accepted the petal, then hopped away one hop. This one then hopped back and the first one hopped away for another petal, then back, giving it to the other who proceeded to hop away. This was repeated for at least five minutes.

June 27—Outside our kitchen window on a low branch of a white lilac bush were four fluffy baby phoebes sitting in a row as close together as they could squeeze, trying to keep warm in the chilly breeze. Finally one little fellow was squeezed out and flew to a near-by ash tree. The line broke up, but three remained close together. The mother bird came and quickly thrust something into the mouth of one baby. Away she flew. In a short time she was back and fed a second. Off again and back, but number one got a second helping. While the mother was away number three attempted to salvage some food from the bill of number one. However, the return of the mother brought him his share. By

this time, the bold one who had flown to the ash tree, returned to the opposite side of the lilac bush. The next serving was his. Now the mother began making flights to encourage the babies. One after another they flew a few feet to a cedar tree and three of them perched on the same limb. Evidently one was an individualist, independent of the rest. The mother came back to the lilac, circled it, lighting on the limbs of the lilac where the babies had been—probably counting bills to check up on them—before going to the new location.

One morning while working in the garden, we heard an unusual bird call. We circled the ash tree to locate the bird and discovered a forlorn looking male purple finch. His heart-broken calls were very different from his joyous spring song. A moment or two later, we discovered a rusty fox squirrel about four feet away in the same tree. We peppered him with small stones to drive him away. The purple finch did not move through it all, but repeated his mournful calls. The squirrel took refuge in a large spruce, perhaps where he had feasted on the eggs of the finch. What can be done to get rid of squirrels short of shooting them?

We were thrilled the last part of July, when driving through the forestry station near Cloquet, to hear the hermit thrush's bell-like song. They sang for us during our picnic dinner and again about five o'clock on our return through the forest. Georgiana Sanford, Cloquet, Minnesota.

OBSERVATIONS AT ST. CLOUD—We walked down to the dock at Cedar Point, Lake Alexander, and there disturbed a mother mallard and a brood of little ducklings. She gave a signal of some sort, and all except one little duckling took to the water. That one didn't get the signal right and "froze." My brother picked it up, then after a moment, put it carefully into the water. Instead of swimming directly to its family, it started to swim in circles. It finally seemed to get its bearing and started to follow the mother mallard and the rest of the brood which had gone some distance. Before it had gone very far it sank. We were sorry we hadn't kept the little duck, and tried to raise it. The child of nature that doesn't get its signals right the first time doesn't have a second chance!

We were driving slowly along an old road south of Lake Alexander when we saw a crow and a partridge fighting and fluttering around in the road not more than two rods ahead of us. We stopped, and one of the party got out of the car to investigate. The crow flew away, but the partridge turned on the human intruder with great flurry and floundering. Then we saw perhaps a half dozen little partridges scurry across the road. Mrs. George W. Lehrke, St. Cloud, Minnesota.

There seems to be quite a colony of wrens near the Vincent Herber home on Watab Lake. Last summer seven pairs of wrens were counted. This year the number has increased. There are nine pairs. Mrs. Unice Trainor, St. Cloud, Minnesota.

BIRD INCIDENTS—We enjoy our back yard even more than we do our front yard, because of the many nature interests it offers. Behind the garden is a small patch of thick woods that adjoins a marsh area. The warblers and other birds like to stop here for refreshments. One windless day last spring I spent a few delightful hours watching them flit about. I counted 15 different varieties: house wren, northern yellow-throat, American redstart, black and white warbler, pine warbler, Tennessee warbler, rose-breasted grosbeak, magnolia warbler, Baltimore oriole, brown thrasher, catbird, ruby-crowned kinglet, black-capped chickadee, hermit thrush, and myrtle warbler. I could add to this list the robin, blue jay and sparrows. It's hard to say which was the most enjoyable. The two

pairs of redstarts frolicked about with wings that appeared like silk. The magnolia warbler seemed to mimic the airy, fairyhood of the banded purple butterfly. They were too busy to stop for much singing. Some of these birds stayed and built their nests while others went on to more desirable haunts.

At dusk one quiet evening when the birds were hustling off to rest I spied the towhee scratching like an old mother hen in the leaves on the ground beneath the trees. He proudly displayed the white on his beautiful long tail as he moved along searching for food. I watched him for a long time, and followed him till he reached the swamp. I went back to the house with a feeling that all that's needed is one bird to make a paradise.

Have you ever witnessed a bird war? Some time ago we heard an awful racket in the yard. There were birds of all kinds yelling their opinions. We hurried out to investigate. That handsome rascal, the blue jay, must have been molesting some smaller bird whose feathered friends came to the rescue. Mr. Jay was crouched close to the main branch of an old plum tree for protection. Nearly a dozen different varieties of smaller birds circled about, excitedly and darted in and out of the tree shrieking. My brother ventured closer and shooed him out of the tree. The other birds resumed their attack by dive-bombing the culprit. The little yellow warbler distinguished himself by picking the aristocratic crown. He took refuge in a large boxelder. The racket continued there till the blue jay tried another tree. We left him, feeling that he was getting what he deserved.

He does have some redeeming qualities. A stray cat came to our place and made himself at home. He spied a fat baby robin and grabbed him. The parents gave a wild cry of alarm and darted after the cat. All the birds in the surrounding territory came to their aid, foremost among them was the blue jay, and what he did to that cat only the cat can relate. The little robin could not be saved, but that cat was given no rest. The warm spot I have always had in my heart for our mischievous friend, the blue jay, went up several degrees. He can also be in a fight for a good cause.

I was aroused by a strange whistle. I slipped out of bed and went noiselessly down the steps to find the bird that was out so early. It was a wet sultry morning with no hope of the sun breaking through the clouds. The mourning doves tried to throw me off the trail with their cooing. I followed the whistle, unconscious of the dripping knee high grass. I finally stopped beneath a sturdy oak tree and searched the branches above. There on one of the higher limbs sat the cardinal with his mouth wide open and his black chin whiskers vibrating from the force of his song. It was worth getting wet to see that fellow.

The rose-breasted grosbeak is a sweet singer but he likes to fool us with his various notes. We have often been attracted by some unfamiliar bird calls. Upon following the songster it proved to be the rose-breasted grosbeak. One day, believe it or not, we caught him eating young potato beetles off the potato vines. More power to him!

The grackle, though not welcome, is forcing himself into the neighborhood. During molting season just after we had painted our washline posts, Mr. Grackle took the liberty to perch himself upon one of them. His feet stuck to the wet paint. He flipped his tail and that stuck too. We noticed his awkward embarrassment and came to help him off. Our soothing voices telling him not to get excited only frightened him the more. He managed to get off before we could reach him, but he left most of his tail feathers sticking to the paint. He couldn't fly very well, but he had no hard feelings. The next day he was back on the grass pick-

ing away for food. Monica Misho, St. Cloud, Minnesota.

From the BIRD PROTECTION COMMITTEE of the MINNESOTA ORNITHOLOGISTS' UNION—The state Department of Conservation was today asked to declare a closed season on mourning doves this fall by the bird protection committee of the Minnesota Ornithologists' Union.

The committee concedes that the birds are at present abundant in Minnesota and says its recommendation is based on the action of conservation departments in neighboring states which have banned dove shooting for many years because of the tameness of the birds in their breeding range and "the conviction that popping unwary birds off telephone wires can never be classed as sport."

The committee adds that an open season on doves tends to break down respect for all bird protection, since youngsters are unable to understand why song birds should not be disturbed when mourning doves which likewise nest in their yards, even in the heart of cities, may be shot during an open season.

It is pointed out by the bird protection committee that "very few sportsmen go after mourning doves and that the dove season, which opens in mid-September—usually a month or more before the pheasant opening—provides an excuse for poachers to be in the uplands shooting pheasants and other birds." Thereby, the committee contends, game enforcement is unnecessarily hampered and "for this reason alone there should be a closed dove season."

Unfortunately, committee members say, the dove season is just an excuse for many people to get out and shoot before the regular upland game season without any intention of bringing home their quarry. They cite the experience of a Wadena sportsman who wrote this report after the opening of the 1943 dove season: "They (youthful shooters) do not care for the doves after they get them and the majority of the hunters who go out at the opening of the dove season have no interest in doves whatsoever. This evening, on a 10-mile trip, I counted 12 doves dead along the highway. The doves light on the telephone wires and fences along the highways and the youngsters pick them off without bothering to pick them up after shooting them."

The committee comments that "with our generous variety and abundance of game in Minnesota, we certainly can well afford to eliminate the slaughter of doves that have become tame and trusting during their summer's residence here."

The bird protection committee states that although the Fish and Wildlife Service authorizes a dove season, conservation departments can close the season at their discretion.

EDITOR—The above information was released on August 20, 1945, to the State Conservation Department and to the sports writers of 15 newspapers throughout the State.

NOTICE

The deadline for manuscripts for the December, 1945, issue of THE FLICKER is November 10, 1945. All notes and articles should be mailed to the new editor, Miss Severena C. Holmberg, 4827 Woodlawn Boulevard, Minneapolis 6, Minnesota.

- CALL NOTES -

The Minnesota Ornithologists' Union membership will sincerely regret to hear of the retirement of Dr. Arnold B. Erickson from the duties of editor of THE FLICKER. A new position as Associate Biologist with the United States Public Health Service is taking Dr. Erickson to Georgia.

Although Arnold was not one of the charter members of the Minnesota Bird Club, he did affiliate himself with that group only a few years later while still an undergraduate student at the University. In 1935, he received his B. A. degree and immediately began his graduate work in zoology. In this field his thesis on Parasitology and Ecology of Certain Wild Mice completed his requirements for the M. A. degree in 1937. He then pushed on with more course work in the field of parasitology and another thesis on Snowshoe Hares in Relation to Cycles won him his Ph. D. in 1942. For the past several years, Arnold has been doing research work in parasitology and game management in a position jointly supported by the University of Minnesota and the Pittman-Robertson program of the Minnesota Conservation Department and the United States Fish and Wildlife Service.

All this time Arnold has maintained an active interest in ornithology and has carried on numerous original pieces of research that have resulted in several published papers. Numerous other notes in his special field of parasitology have appeared in the AUK, AMERICAN MIDLAND NATURALIST, JOURNAL OF MAMMALOGY, and JOURNAL OF WILDLIFE MANAGEMENT.

Arnold has always been a quiet, hardworking individual, never putting himself forward but always capable

and willing to get things done. In fact, so reticent is he about discussing the extent of his work even with his close friends, that often a completed piece of research appeared without their realizing much more than that he was merely interested in the subject. In the field he was a keen observer and always maintained sufficient scientific skepticism to make his reports thoroughly reliable.

Back in 1939 Arnold accepted the task of editing THE FLICKER. At that time the Minnesota Ornithologists' Union membership was limited with, of course, a corresponding limitation on the finances of the Union. During his nearly six years in the editorship, he has devoted a great many hours' time to editing articles, securing paper, delivering manuscripts to linotypers, and even to delivering the heavy lead type to the printers. Now the work is concentrated in the print shop at the Reformatory at Saint Cloud, thus eliminating some of the menial tasks but even with this improvement many hours are still required to get each issue set up, galley proofs read, and page proofs rechecked. All these tasks Arnold has done willingly and without compensation whatsoever, and we want him to leave with a feeling that his efforts are sincerely appreciated by the Minnesota Ornithologists' Union members.

To all his other undertakings, early last year he added matrimony with the cooperation of another M. O. U. member, Miss Ellen Wilson. And now the Erickson's have a husky boy, Edward Arnold, to accompany them to their new home in Savannah, Georgia. Here Dr. Erickson will be working with a

group of other scientists, probing into the uses and limitations of the remarkable new insecticide, DDT, Arnold's particular field being its effect on the vertebrates in areas where it is being used.

Much as we regret losing our hard-working editor, we are happy to learn of his getting this splendid advancement in his chosen work, and the well wishes of all who knew him and Mrs. Erickson will certainly follow them to their new home in the Southland.

—W. J. B.

Editor—Friends who wish to keep in touch with Dr. and Mrs. Erickson may write to them at Carter Memorial Laboratory, Box 547, Savannah, Ga.

Another habitat group of a young bull moose has just been completed at the Minnesota Museum of Natural History, University of Minnesota.

To make the killing legal, Dr. Walter J. Breckenridge, curator, obtained special permission from the state game and fish department to shoot one moose, although there hasn't been an open season on moose since 1921.

Fourteen moose were passed up before the right one, the 1,100-pound bull moose now so realistically displayed in the habitat, was shot in a muskeg swamp near Baudette. The moose was skinned immediately, the skin salted, and the leg bones saved and shipped back to Minneapolis.

At the museum, a one-sixth scale model of plasticene clay was made lining up the position of the moose as it is now poised in the habitat display. The tanned skin had to be moistened and stretched over a carefully measured frame of wire netting and papier mache to correspond with the clay model.

The pond lilies and swamp grass used in the display are the real plants coated or cast in wax, the mud is made

by painting papier mache, and plexiglass is sprayed with varnish to resemble swamp water. The setting is a rosy sunset on Gunflint Lake, north of Grand Marais.

The taxidermy and construction work were done by Dr. Breckenridge. The spruce wood background was painted by the well known artist, Francis Lee Jaques.

Hawks and Owls Win in Minnesota, by Kenneth Morrison, is an article in the July-August, 1945, Audubon Magazine that all M.O.U. members will want to read. It gives an excellent account of the effectiveness of the work of the Bird Protection committee during the 1945, session of the State legislature. Mr. Morrison, an active member of the M.O.U., is the managing editor of The Conservation Volunteer.

George A. Rickert, a member of the Minneapolis Bird Club and the National Audubon Society, reports that he has 35 bird houses in his yard. He attracts the birds in the winter by feeding them regularly.

Fred Blanch spent his summer vacation, working for the United States Forestry Service in the Klamath National forest in California and Oregon, fighting forest fires and digging ribes (currant and gooseberry bushes). In his spare time he collected insects and studied birds. The water ouzel, and her nest, was the most interesting bird he observed. The most common birds were Steller's jays and various species of woodpeckers. Fred plans to specialize in wildlife management when he finishes high school. He is a student member of the Minneapolis Bird Club.

Lt. Milton D. Thompson ANTU NAS stopped off in Minneapolis a few days during the summer en route to Widbey Island, Washington, where he is stationed.

The Audubon Screen Tours that were such a success last year are again being sponsored by the Minneapolis Science Museum Society with which

the Minneapolis Bird Club is affiliated. Five of the nation's outstanding wildlife photographers and lecturers have been scheduled for appearances in Minneapolis during the fall and spring months.

The series will open October 8, with Howard Cleaves of New York presenting, "Midnight Movies in Animal Land." Other screen tours in the series include:

November 23, "Birth of the Land," a film story of Georgia's Okefenokee swamp, narrated by John H. Storer of Boston; February 12, "Happy Valley," presented by Tom and Arlene Hadley

of Detroit; March 25, "From Seashore to Glacier," related by Edna Maslowski of Cincinnati; and May 2, "From Coast to Crest," narrated by Alexander Sprunt, Jr. of New York city.

Natural science enthusiasts who plan to be in Minneapolis on any of the above dates may get information concerning tickets by writing to Miss Amy Chambers, treasurer, Minneapolis Science Museum Society, Hennepin at Tenth street, Minneapolis 3, Minnesota.

All lectures will be presented in Jefferson junior high school auditorium.

—S. C. H.

All nesting data collected during the last nesting season should be submitted to the editor as soon as possible. These data are now being compiled and prepared for publication in the December issue of THE FLICKER.

TO MEMBERS OF THE MINNESOTA ORNITHOLOGISTS' UNION

The University of Minnesota Press has published a large number of books of interest to naturalists, and an arrangement has been made whereby these books are now available to M. O. U. members at a 10 per cent discount, with an additional trade discount going to the Union treasury for aid in publishing *The Flicker*. Remember, then, that for every one of these books which you buy, or can sell to others, you benefit the publication fund and make possible a better magazine.

Orders and remittances should be sent to Mrs. I. A. Lupient, treasurer, Minnesota Ornithologists' Union, 212 S.E. Bedford street, Minneapolis 14, Minnesota.

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|---|---------|
| Birds of Minnesota, Roberts (2 Vols., Revised edition) | \$15.00 |
| A Manual for Identification of Minnesota Birds, Roberts | 2.00 |
| Canoe Country, Jaques | 2.00 |
| Butterflies, Macy and Shepard | 3.50 |
| Northern Fishes, Eddy and Surber | 4.00 |
| The Indoor Gardener, Abbott | 1.50 |
| The Northern Garden Week by Week, Abbott | 1.00 |
| Common Edible Mushrooms, Christenson | 2.50 |
| Guide to Spring Flowers of Minnesota, Rosendahl and Butters | 1.00 |
| Trees and Shrubs of Minnesota, Rosendahl and Butters | 3.00 |
| On Your Own, Graham and O'Roke | 2.00 |
| Snowshoe Country, Jaques | 3.00 |
| Reptiles and Amphibians of Minnesota, Breckenridge | 2.50 |
| Flower Family Album, Fischer & Harshbarger | 2.50 |

CONSTITUTION OF THE MINNESOTA ORNITHOLOGISTS' UNION

ARTICLE I.

The association shall be known as the Minnesota Ornithologists' Union.

ARTICLE II.

The object of the Minnesota Ornithologists' Union shall be the promotion of interest in bird study and the binding together of bird clubs and individual bird students of Minnesota into a common organization.

ARTICLE III.

Active membership shall be granted those contributing dues of one dollar per year to the Minnesota Ornithologists' Union, entitling each to the power of vote and participation in all activities of the organization. Local organizations numbering ten or more individuals may affiliate themselves as a chapter of the Minnesota Ornithologists' Union on payment to the Union of seventy-five cents per individual; or any individual may affiliate himself with any chapter of the Union on the payment to the Union of one dollar.

Student membership shall be granted to those contributing dues of twenty-five cents per year to the Union, entitling each to participation in all activities of the Union with the exception of the power to vote. Each three student members shall be entitled to one copy of *The Flicker*.

Sustaining membership will be granted to individuals paying annual dues of five dollars.

ARTICLE IV

The officers of the Minnesota Ornithologists' Union shall be president, vice-president, and secretary-treasurer, and editor. Each officer shall be elected for the duration of one year.

ARTICLE V.

The official publication shall be known as *The Flicker* which shall be sent free of charge to all members not in arrears for dues. Each chapter shall elect a member of the editorial board, and this member shall serve as the regional editor to assemble, edit, and forward material for publication to the central office.

ARTICLE VI.

Annual meetings shall be held, the time and place of such meetings to be decided upon by the officers of the Minnesota Ornithologists' Union; and notices shall announce such meetings one month in advance.

ARTICLE VII.

Amendments to the above constitution may be made by two-thirds vote of the members represented at the annual meeting.

AMENDMENT I

Article IV, amended May 16, 1942, to read: The officers of the Minnesota Ornithologists' Union shall be president, vice-president, secretary, treasurer, and editor. Each officer shall be elected for the duration of one year.

Minnesota Ornithologists' Union

Affiliated Societies

CLOQUET BIRD CLUB

Officers: President, Miss Georgiana Sanford; Vice-President, Miss Doris Anderson; Secretary-Treasurer, Miss Edith Sanford; Editor, Miss Marie Kennedy.

Meetings are held the first and third Thursdays of each month in the Cloquet High School at 7:30 p.m.

DULUTH BIRD CLUB

Officers: President, Miss Alma Chesley; Vice-President, Miss Frances Riddle; Secretary, Miss Mollie Korgen, Treasurer, Miss Harriet Lockhart.

Meetings are held the second Wednesday of each month at 7:45 p.m. at the Duluth State Teachers College.

LAKEVIEW BRANCH OF THE DULUTH BIRD CLUB

Officers: President, Miss Freida Beier; Vice-President, Mrs. John Thomas; Secretary-Treasurer, Mrs. Wm. Wernowsky.

Meetings are held the fourth Wednesday of each month at 8:00 p.m. in the homes of the members.

MINNEAPOLIS AUDUBON SOCIETY

Officers: President, Mrs. E. D. Swedenborg; Vice-President, Miss Kern Bayliss; Treasurer, Mrs. Lloyd M. Steirly; Recording Secretary, Miss Anna Klint; Corresponding Secretary, Mrs. Floyd Brown; Field Secretary, Mrs. C. R. Proctor; Auditor, Mrs. Stuart Green.

Meetings are held the first Friday of each month at 2:00 p.m. at the Walker Branch Library. Field trips during April and May on Tuesdays, Wednesdays, and Fridays.

MINNEAPOLIS BIRD CLUB

Officers: President, Mr. Luther B. Gilbert; Vice-President, Miss Severena C. Holmberg; Secretary, Miss Florence Nelson; Treasurer, Miss Helen Towle; M.O.U. representative, Miss Gladys Peters.

Meetings are held the first and third Tuesdays of each month at 7:30 p.m. at the Minneapolis Public Library.

MINNESOTA BIRD CLUB

Officers: President, Arnold B. Erickson; Vice-President, Kenneth Carlander; Secretary-Treasurer, W. J. Breckenridge.

Meetings are held the second Thursday of each month, except in June, July, August, and September, at 8:00 p.m. at the Minnesota Museum of Natural History.

ST. CLOUD BIRD CLUB

Officers: President, Mrs. A. J. Trainor; Vice-President, Miss Monica Misho; Secretary-Treasurer, Miss Loretta Rosenberger.

Meetings are held the first Wednesday of each month October through March at 8:00 p.m.

T. S. ROBERTS ORNITHOLOGICAL CLUB

Officers: President, Edmund Hibbard; Vice-President, Andrew Wilson; Secretary, Constance Stelzig; Treasurer, Haruko Matsushita; Advisor, Prof. G. W. Friedrich.

Meetings are held bi-monthly February through May at the St. Cloud Teachers College.

THE FLICKER

VOLUME 17

DECEMBER, 1945

NUMBER 4



Published Quarterly by
THE
MINNESOTA ORNITHOLOGISTS' UNION
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, May, October and December
Minnesota Museum of Natural History, University of Minnesota
Minneapolis 14, Minnesota.

Twin Cities Regional Editor W. J. Breckenridge
St. Cloud Regional Editor Miss Monica Misho
Duluth Regional Editors Dr. Olga Lakela, Miss Evelyn Jones

THE FLICKER is sent to all members not in arrears for dues.
Dues for all members, \$1.00 per annum, should be paid in
advance to the treasurer.
All articles and communications for publications and exchanges
should be addressed to the editor.

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THE FLICKER

VOLUME 17

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NUMBER 4

A Nesting of Holboell's Grebe and A Problem in Parentage

by

Don and Eldeen Jacobs

We were walking along the north shore of a small bay on Clearwater Lake in Wright County on the evening of June 23. The hike had been very disappointing thus far. Not a single new bird had we added to our spring list and even most of our old friends of the season seemed to have deserted us. As we continued our walk, the beautiful rose and gold colors of the sunset were fading rapidly from the sky and the dimness of twilight began closing in.

Suddenly we realized that the "loons" we had been hearing so constantly did not sound altogether like loons. The sound grew louder and more distinct as we neared a game-fish spawning grounds overgrown with bulrushes. It had the quality of a very hoarse laugh, much coarser but still somewhat similar to that of the loon. We moved on down the shore and with the aid of our binoculars soon located the vocalists. Silhouetted against the highlights on the water was a small colony of Holboell's grebes. Several of them were swimming about among the rushes, and these were the noisy ones, but our real thrill came when we discovered that two of the birds were sitting motionless on what looked like piles of debris and we realized that we had found their nesting site.

Upon examination the next day the area yielded three floating nests

anchored to clumps of bulrushes and spaced about fifty feet apart in water three feet deep. The first nest was empty, the second contained a single egg, and the third contained five eggs. An adult pair of grebes accompanied by two one-third-grown young were swimming along the margin of the rushes; two more adults were seen moving separately out in the open water. One of these was being followed about by one small young.

When we first approached the nesting area there were adult birds sitting on two of the nests but they left as soon as we had come to within approximately twenty yards of them. Before leaving each of the adults stood up and quickly covered her eggs with bits of the nesting material. This process was repeated in the same manner before every departure.

We selected, as the one to be observed and photographed, the nest which contained the set of five eggs, and proceeded to wade out to the site and set up our cameras. We then ran remote control strings from the cameras into shore, a distance of fifty yards. Although we were concealed from view and remained at our posts from three in the afternoon until eight in the evening, the adult did not come back to the nest, so we were unable to obtain the desired photographs. No sooner had we dismantled our equipment

and prepared to leave the vicinity, however, than she cautiously returned.

The next morning proved to be a repetition of the previous day's experience. We set up our cameras as before, and waited. Although we could see the female swimming about in the open water just beyond the rushes, she had still not returned by noon, so we left the cameras standing as they were, and returned to our cabin for lunch.

Upon returning we had the good fortune to find the adult bird sitting on the nest, and we photographed her at once. It was then necessary to wade out and reset the shutters, thus frightening the bird away, but fortunately she returned this time within the space of half an hour. She sprang from the water to the edge of the nest in a single jump; uncovered the eggs with a few quick movements; fluffed her feathers; and settled on the eggs with neck fully extended. This process was repeated five times during that afternoon and each time we took a photograph.

On several occasions another adult, presumably the male, approached the brooding female and sometimes he deposited plant materials at the nest. He was often accompanied by a young grebe. It was noted that, when the two adults were with this youngster out on the water, one of the birds was never seen to dive while the other dove repeatedly and came up with small fish held crosswise in its bill. These he fed sometimes to the young and sometimes to the adult. During one observation the young grebe was fed by one adult while riding "pick-a-back" on the other.

It seemed very strange to us that this young grebe, which must have been about 10 days old, was under the care of a pair of birds that had a well advanced and probably full set of eggs. On the second day one of the eggs was found broken. It contained a dead young bird almost ready to emerge,

The old bird was still brooding 3 days later, but since we had to leave before further observations could be made, we do not know the outcome. A visit three weeks later disclosed that the nesting area had been deserted. The grebes were all out on the open water of the lake moving singly or in pairs. Two pairs had been found in another nesting area so by this time the lake was fairly well populated with Holboell's grebes.

Speculation was begun anew when the kodachrome pictures were returned from processing. The first transparency revealed a young grebe sitting on the nest beside the adult. It was undoubtedly the same youngster that we had seen near the nest. What was the percentage of this youngster? Was he hatched in another nest by other parents? If so, why had he been adopted by another pair? Could he actually be the offspring of the birds he was with? He could hardly have come from an earlier nesting of this pair. Incubation was about complete so he would have been much larger if he had come from a previous set of eggs. Could it be that the female was brooding eggs with dead embryos, and that this was the only young that survived some calamity which killed the other embryos? This is possible, but then why did she continue brooding so long after he hatched, or what caused her to stop later? The embryo in the broken egg did not appear to have been dead for more than two days, and none of the eggs were very heavily stained as occurs after long incubation. One other possibility is that egg laying had been interrupted but brooding had started as soon as the first egg was laid. This interesting problem can hardly be solved now, so we will have to content ourselves with the facts at hand and be satisfied with the greater understanding of this fascinating bird that we obtained through this association with it. Minneapolis, Minnesota.

A Serene Setting - Mother and Child? on Nest.



Brooding Female

Photograph by Don Jacobs
Nest and Eggs

Nebraska Crane Flight

by

W. J. Breckenridge

Since the very beginning of my ornithological interest in early youth, the name "Sandhill Crane" has had a singular appeal to me. Its huge size, of course, struck my early fancy and then to discover it was a rare and disappearing bird added to its romantic appeal. The descriptions of its wild bugling calls and fantastic dancing intrigued my imagination and for many years it was one of my ambitions to see and hear the sandhill crane. In 1930 this was partially realized when I studied and photographed a single pair of cranes near Grantsburg, Wisconsin. Later, in 1940, I was much elated by the experience of seeing and getting movies of several flocks totaling 300 or 400 out on the prairies near Moorhead. However, the climactic realization of this long held ambition to get acquainted with cranes came during the past spring (1945) when Florence and Lee Jaques and I went out into western Nebraska to secure materials for a new crane exhibit for the halls of the Minnesota Museum of Natural History. This opportunity came about through the generosity of Mrs. Lillian N. Berthel who has so kindly donated the funds for the building of this exhibit in memory of her son, Russell, one of our former M.O.U. members and a close friend of mine. We have made a practice in the past of making all our exhibits of Minnesota material. This group will actually represent a crane migration on Minnesota's prairies near Crookston, but we felt that our chances for successfully collecting the birds we needed in a reasonably short time were much better at their spring concentration grounds in Nebraska—hence our decision to leave Minnesota for this particular material.

For years I had known of the big flight of cranes across west central Nebraska through the writings of the Nebraska ornithologist, Myron Swenk. His scattered records of whooping cranes spurred our hopes that we might even be lucky enough to see a specimen of this species now tottering on the verge of extermination.

Our headquarters at North Platte we found to be at the confluence of the North and South Platte Rivers. Just before they join, the two streams enclose a narrow area of fertile irrigated land where corn is the dominant crop. Thus the wide sandy river flats provide protection for the birds by night and the corn fields, good food by day. Spring feeding on the corn is not damaging, of course, since the birds were gleaning what would otherwise be waste grain. By previous arrangement Clyde Licking, U.S. Conservation officer stationed at North Platte, piloted us out to one of the crane concentrations immediately upon our arrival in midafternoon of March 26. Scattered flocks of a dozen to a hundred or so birds were seen criss-crossing the countryside or dropping in with other birds in the cornfields, while their peculiar trilling bugle calls could be heard almost continuously. Toward evening, we approached one of their roosts on the flat sandy bars of the North Platte and watched flock after flock come beating in and settle with dangling legs and down-stretched necks. Within the first few days we succeeded in getting the ten birds we needed. These were from flocks which made the mistake of feeding in the fields too near the irrigation ditches. Special permits from both state and federal officials, of course, had been secured to take the

birds. I am always relieved and pleased to find the shooting over on such collecting trips since then the really difficult and interesting phase of the work begins—the studying of their habits and photographing the birds.

Several partially completed blinds had been built by Mr. Licking at favorable spots. These were completed and occupied for several hours apiece with no success. Then a pit was dug in the remains of an old hay stack out on a dancing meadow and even this blind, which I considered excellently camouflaged, produced no results. Finally I located a blind among some coils of fence wire and stumps along the edge of a cottonwood grove and here some fair pictures were secured.

Our collected birds all proved to be the lesser sandhill or little brown cranes. Apparently these flocks now consist largely of these arctic-nesting birds while the greater sandhill which formerly nested extensively through the Middle West has diminished markedly. Perhaps this reduction has not been appreciated by ornithologists generally since the two birds are not distinguishable in the field and as the larger bird is reduced in numbers its place is taken in the migrating flocks by the smaller northern bird.

The courting dance of the cranes intrigued us greatly and we saw snatches of it at numerous places. The commonest "step" was a ridiculous bounding into the air with outstretched wings which was repeated often several times in succession, frequently with a second bird facing the dancer and engaging in similar antics. Once or twice we saw the "turkey strut step" where the wings drooped nearly to the ground and the head looped down in front also nearly scraping the stubble. A few times a dancing bird picked up a stick and tossed it into the air with an exuberant gesture and at other times a performer would suddenly point its bill toward the ground

between the feet with the neck arched awkwardly downward. Of all the "steps", however, the bounding, wing-spread act was most frequent and at times a dozen or more birds scattered throughout a large flock might be in action at once.

It was our hope, of course, to see a whooping crane, and one day, while examining a flock resting, a white spot was seen to move about in the gray mass and our hearts skipped a few beats as we grabbed our binoculars to examine the spot. Yes, it was a bird but it seemed a bit too small for a whooper and we soon found to our disappointment that it was a single stray lesser snow goose mingling with the cranes. Our sole contact with the whooping crane was with a single wing-tipped bird that had lived for 6 or 8 years in a 20-acre refuge near Gothenburg. Here this big old red-headed male dominated the enclosure and was reported to have killed several sandhills that had previously shared the area with it. We were amused while watching it on a sandy point in the little lake to see it stalk very majestically out into the water and finally swim several rods to the other shore looking much more like a swan than a crane in doing so. Mr. Licking in watching these enormous crane flocks throughout the season reported seeing only 4 or 5 whoopers during the spring, which indicated by what a narrow margin this species is still holding out at the present time.

At one roost near Lexington, Nebraska, we found a single flock of cranes standing nearly shoulder to shoulder extending a half a mile in length and several hundred yards in width. We estimated 20,000 birds might make up such a flock. When approached closer than a quarter of a mile the near edge of the flock "peeled" up off the ground in a clamorous tumult and

the cranes literally filled the air with their huge beating wings. Never were all the birds aloft at once but sufficiently large numbers did rise to be really awe-inspiring. When I recovered enough to remember my camera I was bewildered as to where to point it or what lens to use to secure pictures that would even approach being a convincing photographic record of the tremendous avian spectacle. Gradually the clamoring mass of birds rose higher and higher toward the massive white cumulus clouds floating in the deep blue sky. And as they rose they slowly began to organize themselves into a huge circling whirlpool-like formation that turned ever so slowly and all the while towering higher and higher. Their calls gradually became less and less distinct and their huge

forms smaller and smaller until finally the highest bird had to be followed with 8x binoculars or they would be lost to sight. At this point the sky seemed covered by layer after layer of circling cranes with always a higher stratum beyond if one examined the sky closely enough. No bird spectacle that I have ever seen impressed me more than this breath-taking aerial maneuver of these circling sandhills. And if ever you want to lay plans for a really thrilling bird adventure I would not hesitate to recommend this Nebraska crane flight as your objective, and upon your return we would like to have you stop at the Museum and let us know if we have caught the spirit of the spectacle in our newest exhibit of the crane migration and dance. Minnesota Museum of Natural History, Minneapolis, Minnesota.

NOTICE

The deadline for manuscripts for the March, 1946, issue of THE FLICKER is February 10. The deadline for the May issue is April 10. The editors urge you to contribute regularly, articles and notes, and to send them in as early as possible.

Minnesota Nesting Records, 1945

compiled by

Mary Lupient

In spite of the fact that gas rationing was in effect during almost all of the 1945, nesting season, more than 2,000 nesting records of 107 species were reported by 25 observers. Interesting notes accompanied the records, but due to lack of space it was impossible to include them. The reports were well written, in good order, and contained all of the necessary information. Nesting records for 1945, are as follows:

GOSHAWK. Nest with two young, June 3, 14 miles N. of Duluth, Olga Lakela.

COOPER'S HAWK. Nest with 2 eggs, Hennepin Co., May 13, William Longley.

RED-TAILED HAWK. 2 nests, one with young, June 26, one with eggs, May 5, Washington Co., Brother Hubert.

RED-SHOULDERED HAWK. Nest with young, June 26, Washington Co., Brother Hubert.

BROAD-WINGED HAWK. 5 nests with eggs, 1 in Washington Co., May 12, 2 in Ramsey Co., May 15, 2 in Cook Co., June 20, Brother Hubert; nest with 2 young, June 3, Hennepin Co., Don and Eldeen Jacobs.

WOOD DUCK. 2 nests, 5 mi. N. of Camden, Minneapolis, 1 nest with 25 eggs, April 15, 35 removed May 16, 12 more removed June 29, W. J. Breckenridge; nest with eggs, May 13, Frontenac, nest with eggs, May 30, Washington Co., 7 young, June 27, Clearwater Lake, 6 young, July 14, Hennepin Co., Don and Eldeen Jacobs; female with 4 young, June 6, Hennepin Co., Lulu M. Aler.

RING-NECKED DUCK. 6 young with female, Aug. 2, Cook Co., William Longley.

RUDDY DUCK. Young with parents, July 26, nest with eggs, Aug. 12, Hennepin Co., Don and Eldeen Jacobs.

MALLARD. Nest with 12 eggs later destroyed, May 27, Hennepin Co., Don and Eldeen Jacobs; nest with 12 eggs, May 19, Hennepin Co., Fred Blanch and Larry Flahavan; nest with eggs, Washington Co., May 19, nest with eggs, Ramsey Co., May 20, Brother Hubert.

BLUE-WINGED TEAL. Nest with 12 eggs, June 9, Hennepin Co., Don and Eldeen Jacobs; 2 nests with eggs, May 27, June 26, Hennepin Co., Fred Blanch and Larry Flahavan; nest with young, July 4, Wallace E. Hamilton; 2 nests with eggs, May 25, Ramsey Co., Brother Hubert.

COOT. 6 nests with eggs, May 19, 3 nests with eggs, May 27, Hennepin Co., Don and Eldeen Jacobs; 3 nests with eggs and young, May 23, 26, 30, Fred Blanch and Larry Flahavan; nest with eggs, Ramsey Co., May 25, Brother Hubert.

HOLBOELL'S GREBE. 3 nests with eggs, June 25, Wright Co., Don and Eldeen Jacobs.

PIED-BILLED GREBE. 2 nests with eggs, May 27, Hennepin Co., Don and Eldeen Jacobs; 2 nests with eggs, May 26, Hennepin Co., Fred Blanch and Larry Flahavan.

LOON. 2 young with parent, Cook Co., Aug. 1, William Longley; 2 young, Cook Co., June 12, Brother Hubert.

RED-BREASTED MERGANSER. 6 young with female, July 21, E. Beaver Bay, Olga Lakela, Mary I. Elwell.

AMERICAN MERGANSER. 10 small young, June 7, Cook Co., Brother Hubert.

GREAT BLUE HERON. Colony on

Dunlap Island, young in 30 nests, June 3, Don and Eldeen Jacobs; 100 nests with eggs and young, May 30, Ramsey Co., Brother Hubert.

GREEN HERON. 17 nests, some only 20 feet apart, dates from May 24 to Aug. 12, Hennepin Co., Don and Eldeen Jacobs; 3 nests, Hennepin Co., Lulu M. Aler; 8 nests with young, May 14 to 25, Hennepin Co., Fred Blanch and Larry Flahavan.

AMERICAN BITTERN. Nest with 3 eggs, June 16, Hennepin Co., Don and Eldeen Jacobs; nest with 1 egg, May 26, Hennepin Co., Fred Blanch and Larry Flahavan.

SORA RAIL. 2 nests with eggs, May 27, and nest with young, July 3, Hennepin Co., Don and Eldeen Jacobs; 2 nests with eggs, May 23, Fred Blanch and Larry Flahavan; nest with 4 eggs, May 25, Ramsey Co., Brother Hubert.

FLORIDA GALLINULE. Nest with 9 eggs, June 16, Hennepin Co., Don and Eldeen Jacobs.

FORSTER'S TERN. 1 young, Hennepin Co., June 18, Don and Eldeen Jacobs.

COMMON TERN. 1 young, Duluth Harbor, July 25, Olga Lakela, Mary I. Elwell.

HERRING GULL. 132 nests containing 329 eggs and 30 young, Beaver Island, Lake Superior, May 26, Olga Lakela, Evelyn Jones; 146 nests, 327 eggs besides young, May 24, Lake Superior on Pancake Island, Olga Lakela, Mary I. Elwell.

BLACK TERN. Nest, July 4, Ramsey Co., Russell Hofstead; 20 nests with eggs, Hennepin Co., dates from May 24 to June 16, Don and Eldeen Jacobs; 2 nests with eggs, Hennepin Co., May 26-30, Fred Blanch and Larry Flahavan.

KILLDEER. 2 young, May 30, 4 young, July 4, Duluth, Olga Lakela; young, May 24, Hennepin Co., Don and Eldeen Jacobs; nest with 4 eggs, Hennepin Co., Lulu M. Aler; nest with

young, May 1, Hennepin Co., Wallace E. Hamilton; nest with 4 eggs, May 7, nest with 4 eggs, May 20, nest with 2 eggs, 2 young, July 3, Ramsey Co., Brother Hubert.

PIPING PLOVER. 14 young, Duluth, July 25, Olga Lakela, Mary I. Elwell; 2 nests with eggs, Duluth, July 8, Olga Lakela.

SPOTTED SANDPIPER. 3 young, Duluth, July 25, Olga Lakela, Mary I. Elwell.

WOODCOCK. 4 young with female, St. Croix State Park, May 16, Arnold Erickson, William Marshall.

LONG-EARED OWL. 2 owlets, 1 egg in nest, Ada Minn., May 11, Arnold Erickson, William Marshall.

GREAT HORNED OWL. 2 large young, April 20, Ramsey Co., Brother Hubert; 1 young, Hennepin Co., June 3, Don and Eldeen Jacobs; young, Apr. 15, Hennepin Co., William Longley.

BLACK-BILLED CUCKOO. 1 young in nest, Aug. 12, Hennepin Co., Don and Eldeen Jacobs.

BELTED KINGFISHER. 2 large young in nest, Dakota Co., July 5, Brother Hubert.

CROW. 1 young, Duluth, July 4, Olga Lakela; 3 young, Washington Co., Don and Eldeen Jacobs; eggs and young, Washington Co., May 26, William Longley; nest, 5 eggs, May 11, Ada, Minn., Arnold Erickson, William Marshall.

RED-EYED VIREO. Young with parent, Cook Co., Aug. 24, nest, Itasca Park, June 23, William Longley.

NIGHTHAWK. 2 young on roof Hennepin Co., July 3, Don and Eldeen Jacobs.

PILEATED WOODPECKER. Young in nest, Hennepin Co., June 10, Don and Eldeen Jacobs.

DOWNY WOODPECKER. 2 young, July 11, Duluth, Olga Lakela.

RED-HEADED WOODPECKER. 1 nest, Sturgeon Lake, June 6, George A. Rickert.

HAIRY WOODPECKER. Young, May 5, Hennepin Co., William Longley; nest with young, Hennepin Co., Fred Blanch, Larry Flahavan.

YELLOW-BELLIED SAPSUCKER. 2 young with parent, Itasca Park, July 21, William Longley.

NORTHERN FLICKER. 6 nests with eggs, Ramsey Co., May 6, Russell Hofstead; 3 young, Duluth, Aug. 3, Olga Lakela; 2 nests with young, May 18 and June 9, Washington Co., nest with young, Wright Co., Don and Eldeen Jacobs; nest with young, July 23, Cook Co., William Longley; nest with eggs, May 24, Hennepin Co., Wallace E. Hamilton.

WHITE-BREASTED NUTHATCH. Nest with young, May 13, Frontenac, nest with young, Hennepin Co., Don and Eldeen Jacobs.

EASTERN KINGBIRD. Young in nest, July 3, Ramsey Co., Brother Hubert; 2 young in nest, July 25, Duluth, Olga Lakela, Mary I. Elwell; nest, Hennepin Co., June 9, Don and Eldeen Jacobs; 3 young with parents, Cook Co., Aug. 18, William Longley.

LEAST FLYCATCHER. 2 nests, Cook Co., June 15, Brother Hubert.

CREASTED FLYCATCHER. Young, near Alexandria, Aug. 12, J. K. Bronoel; 2 nests with eggs, June 15, and July 6, Hennepin Co., W. J. Breckenridge; nest with young, Hennepin Co., Don and Eldeen Jacobs; 4 young, Itasca Park, July 14, William Longley.

PHOEBE. Nest with young, Hennepin Co., May 6, nest with 5 young and 2 nests with eggs, Washington Co., May 30, Don and Eldeen Jacobs; 3 nests, Washington Co., June 3. William Longley; 3 nests, Ramsey Co., May 6 to 25, 4 nests, Washington Co., June 3. Russel Hofstead; 2 young with adult, Hennepin Co., Aug. 6, Lulu M. Aler; 1 nest with eggs, Washington Co., May

12, 2 nests, Cook Co., June 11, Brother Hubert.

PRAIRIE HORNED LARK. Nest with 3 eggs, March 25, Ramsey Co., Russell Hofstead; nest with eggs, Apr. 4, Hennepin Co., Wallace E. Hamilton.

TREE SWALLOW. 7 nests in Ramsey Co., 3 in Washington Co., April 29 to May 23, Russell Hofstead; 2 nests with young, Washington Co., Don and Eldeen Jacobs; young, Hennepin Co., June 23, Lulu M. Aler; 2 nests with young, Washington Co., June 17, Jacobs.

BANK SWALLOW. Nest with eggs, Washington Co., June 3, nest with young, Dakota Co., July 3, Russell Hofstead; nest with eggs, Hennepin Co., June 8, Wallace E. Hamilton; 92 nests, Ramsey Co., May 26, 8 nests, Dakota Co., eggs and young Dakota Co., July 5, Brother Hubert.

BARN SWALLOW. Nest with 4 young, Duluth, July 7, Olga Lakela; nest with young, Hennepin Co., Aug. 5, Don and Eldeen Jacobs.

CLIFF SWALLOW. 10 nests in St. Louis Co., June 10, 63 nests ten miles N. of Duluth, June 10, Olga Lakela; nest with young, Pine Co., July 17, Arnold B. Erickson.

ROUGH-WINGED SWALLOW. 1 nest, Ramsey Co., May 30, and 2 nests Washington Co., June 3, Russell Hofstead; 4 nests, Washington Co., May 20, many at Ft. Snelling, May 26, Brother Hubert.

PURPLE MARTIN. Young in nest house, Hennepin Co., June 18, Don and Eldeen Jacobs.

CANADA JAY. 2 nests with young, Cook Co., June 22, Brother Hubert.

(Ed's Note: Remarkably late, possibly a second nesting. —W.J.B.)

BLUE JAY. 2 nests, one with 4 eggs, one with 5 young, Ramsey Co., May 23-26, Brother Hubert.

BLACK-CAPPED CHICKADEE. 5 young, Duluth, July 11, Olga Lakela; nest, Hennepin Co., May 27, Don and

Eldeen Jacobs; 2 adults with young, Hennepin Co., Lulu M. Aler; nest with 6 eggs, Ramsey Co., Brother Hubert.

HOUSE WREN. 7 nests, two with eggs, Washington Co., June 3, 3 nests with young, Ramsey Co., June 24 to July 4, 1 nest with young, Dakota Co., July 8, Russell Hofstead; nest with 5 eggs, Hennepin Co., June 20, W. J. Breckenridge; nest with young, Duluth, July 15, nest with 2 young, E. Beaver Bay, July 21, Olga Lakela, Mary I. Elwell; 5 nests, Washington Co., June 24, 2 nests with 7 young each, Wright Co., June 24, 7 young in nest, Hennepin Co., July 4, Don and Eldeen Jacobs; nest with eggs, Itasca Park, June 18, William Longley; nest with eggs, Hennepin Co., Wallace E. Hamilton.

LONG-BILLED MARSH WREN. 2 nests, May 25, July 12, Ramsey Co., Brother Hubert.

SHORT-BILLED MARSH WREN. 2 nests, July 12, Ramsey Co., Brother Hubert.

CATBIRD. Nest with eggs, Washington Co., 4 nests with eggs, Ramsey Co., June 3 to July 4, Russell Hofstead; nest with 1 egg, May 30, nest with 4 young, June 29, W. J. Breckenridge; nest with young, Duluth, July 7, Olga Lakela, Mary I. Elwell; nest, 4 eggs, June 10, Hennepin Co., 8 nests with eggs and young, June 27, Wright Co., Don and Eldeen Jacobs; nest with eggs, Hennepin Co., June 1, nest with eggs, Moose Lake, May 20, George A. Rickert; nest with eggs, Washington Co., June 3, William Longley; nest with young, June 26, Hennepin Co., Wallace E. Hamilton.

BROWN THRASHER. 4 nests with eggs, May 13 to June 20, Ramsey Co., Russell Hofstead; 2 nests with eggs, May 22, nest with young and eggs, June 29, Ramsey Co., Brother Hubert; nest with young, July 4, Duluth, Olga Lakela; 2 nests with eggs, Ramsey Co., June 5, William Longley; 9 nests with eggs, May 5 to June 3, Hennepin Co., Fred Blanch and Larry Flahavan; nest

with young, May 29, Hennepin Co., Wallace E. Hamilton; nest, 4 eggs, Frontenac, May 13, 2 nests with eggs, May 14, June 6, Hennepin Co., nest with young, Wright Co., June 28, Don and Eldeen Jacobs.

ROBIN. 79 nests, eggs and young, first date, April 21, last date June 20, Ramsey Co., Russell Hofstead; nest with 7 eggs, nest with young, June 23, Hennepin Co., W. J. Breckenridge; nest with eggs, April 20, Hennepin Co., Wallace E. Hamilton; 11 young, Duluth, July 4, May 18, Olga Lakela; 12 nests, April 6 to May 22, Hennepin Co., Don and Eldeen Jacobs; 34 nests with eggs, April 25 to June 3, Hennepin Co., Fred Blanch and Larry Flahavan; 3 nests, Hennepin Co., May 14, George A. Rickert; nest with young, Washington Co., May 26, William Longley; nest, 4 eggs, June 17, Itasca Park, William Longley; nest with eggs, Frontenac, May 13, nest with young, Hennepin Co., June 17, Don and Eldeen Jacobs; nest with young, June 19, Hennepin Co., Severena Holmberg.

WOOD THRUSH. Nest with eggs, Ft. Snelling, May 15, Brother Hubert.

EASTERN BLUEBIRD. Nest, 4 eggs, Frontenac, May 13, nest with young, Washington Co., June 17, Don and Eldeen Jacobs; 2 nests with eggs, Washington Co., May 2, and July 10, nest with eggs, Ramsey Co., May 15, Brother Hubert.

BLUE - GRAY GNATCATCHER. Building nest, Washington Co., May 30, Don and Eldeen Jacobs.

GOLDEN - CROWNED KINGLET. Young with parents, Cook Co., August 25, William Longley.

CEDAR WAXWING. Young with parent, August 6, Ramsey Co., Brother Hubert; nest with young, August 5, Wright Co., Don and Eldeen Jacobs; young with parents, Hennepin Co., Aug. 24, Lulu M. Aler; nest with young, July 27, Cook Co., William Longley.

MIGRANT SHRIKE. Nest with 6

young, Hennepin Co., May 12, Don and Eldeen Jacobs; nest with 6 eggs, Hennepin Co., May 5, Fred Blanch and Larry Flahavan.

PROTHONOTARY WARBLER. 11 nests, Washington Co., July 10, Brother Hubert; nest, Washington Co., June 3, William Longley.

TENNESSEE WARBLER. Nest, Cook Co., June 8, Brother Hubert.

BLACKBURNIAN WARBLER. Nest with 3 eggs, July 21, Cook Co., Brother Hubert.

MAGNOLIA WARBLER. 1 young with parents, August 25, 2 young with parents, August 17, Cook Co., William Longley.

MYRLET WARBLER. 2 young with parents, August 25, young 2 with female, August 9, Cook Co., 1 young, July 9, Itasca Park, William Longley.

NORTHERN YELLOW - THROAT. Young with parents, Hennepin Co., July 21, Don and Eldeen Jacobs.

LOUISIANA WATER - THRUSH. Nest with 5 young, Washington Co., June 17, Don and Eldeen Jacobs.

BLACK-THROATED BLUE WARBLER. 2 young with parent, August 25, Cook Co., William Longley.

YELLOW WARBLER. 2 nests, June 11, Ramsey Co., Russell Hofstead; nest, June 27, Ramsey Co., Brother Hubert; 3 nests with eggs and young, Hennepin Co., June 3, 9 nests with eggs and young, Wright Co., June 26, Don and Eldeen Jacobs.

AMERICAN REDSTART. Nest, Ft. Snelling, May 26, Brother Hubert.

OVEN-BIRD. Nest with eggs, May 19, Washington Co., Brother Hubert; nest, 4 eggs, July 11, Itasca Park, William Longley.

BLACK - THROATED GREEN WARBLER. 2 young with parents, Cook Co., August 22, William Longley.

MOURNING WARBLER. 2 young with parent, August 8, Cook Co., William Longley.

WESTERN MEADOWLARK. Nest with eggs, May 19, Hennepin Co., Don and Eldeen Jacobs.

YELLOW-HEADED BLACKBIRD. 25 nests with eggs, May 19 to 27, Hennepin Co., Don and Eldeen Jacobs; 17 nests with eggs, May 23 to 30, Hennepin Co., Fred Blanch and Larry Flahavan.

RED-WINGED BLACKBIRD. 20 nests with eggs, Ramsey Co., May 25. 2 nests with eggs, Washington Co. May 19, Brother Hubert; 2 nests with young, June 25, Duluth, nest with young, July 8, Duluth, Olga Lakela, 27 nests with eggs, May 19 to 27, Hennepin Co., Don and Eldeen Jacobs; 6 nests with eggs, May 23 to June 2, Hennepin Co., Fred Blanch, Larry Flahavan.

STARLING. 1 young, May 13, Ramsey Co., Russell Hofstead; 3 nests, Hennepin Co., May 14, Don and Eldeen Jacobs; nest, Hennepin Co., May 1, George A. Rickert; young, Washington Co., June 3, William Longley; nest, 5 young, May 19, Hennepin Co., Fred Blanch, Larry Flahavan.

BREWER'S BLACKBIRD. 6 nests, May 13 to June 11, Ramsey Co., Russell Hofstead; 2 nests, one with egg, May 21, one with 4 young, July 3, Ramsey Co., Brother Hubert; nest with young, June 9, Hennepin Co., Don and Eldeen Jacobs; nest, Ramsey Co., May 13, William Longley; 5 nests with eggs and young, Fred Blanch and Larry Flahavan.

BRONZED GRACKLE. 2 nests Ramsey Co., April 29, May 6, Russell Hofstead; nest with 4 eggs, Washington Co., May 12, Brother Hubert; 2 nests with eggs, 14 miles N. of Duluth, May 29, Bruce Hanson, Elmo Magnuson; 2 nests with young, May 25, Ramsey Co., William Longley; nest with 5 eggs, Hennepin Co., Fred Blanch, Larry Flahavan.

CARDINAL. Nest, Dakota Co., July 8, Russell Hofstead; 1 cardinal hatch-

ed, April 23, W. J. Breckenridge; 2 nests with eggs, April 28, May 26, Ramsey Co., Brother Hubert; nest with eggs, Frontenac, May 13, nest with young, July 10, Hennepin Co., Don and Eldeen Jacobs.

ROSE - BREASTED GROSBEAK. Nest, 1 egg, Wright Co., June 23, nest with young, Hennepin Co., July 4, Don and Eldeen Jacobs; nest with eggs, June 1, Hennepin Co., Fred Blanch, Larry Flahavan.

BALTIMORE ORIOLE. 3 nests, June 19 to 24, Ramsey Co., Russell Hofstead; nest with young, Dakota Co., July 5, Brother Hubert; nest with young, Hennepin Co., June 26, Severena Holmberg.

ORCHARD ORIOLE. Nest with young, July 3, Ramsey Co., Brother Hubert; nest with young, July 8, Dakota Co., Russell Hofstead.

MOURNING DOVE. 11 nests with eggs, first date April 20, last date August 25, Ramsey Co., Russell Hofstead; 4 nests, Hennepin Co., May 7-18, 4 nests, June 29, Wright Co., Don and Eldeen Jacobs; nest with young, Hennepin Co., May 16, Lulu M. Aler; 6 nests with eggs, Ramsey Co., May 11 to 25, William Longley; nest with eggs, May 1, Hennepin Co., Severena Holmberg; 15 nests with eggs and young, May 7 to June 3, Hennepin Co., Larry Flahavan, Fred Blanch.

INDIGO BUNTING. 4 nests with eggs, July 17 to August 22, 1 nest with young, August 31, Ramsey Co., Brother Hubert.

AMERICAN GOLDFINCH. 167 nests with eggs, first date, July 7, last date, September 2, nest with 1 young, Aug. 31, Ramsey Co., Brother Hubert; 4 nests, August 4 to 19, Hennepin Co., Don and Eldeen Jacobs; 2 nests with eggs, August 30, Hennepin Co., Larry Flahavan, Fred Blanch; nest with young, August 22, Hennepin Co., Wallace E. Hamilton.

PURPLE FINCH. Building nest,

Itasca Park, June 23, William Longley.

RING - NECKED PHEASANT. 3 nests with eggs, later destroyed, Hennepin Co., May 27, Don and Eldeen Jacobs; nest, 7 eggs, April 28, Hennepin Co., William Longley; 2 nests with eggs, Hennepin Co., Fred Blanch, Larry Flahavan.

EASTERN COWBIRD. The following species were hosts to the cowbird: chipping sparrow 7, veery, yellow-headed blackbird, red-winged blackbird, brewer's blackbird 3, rose-breasted grosbeak, cardinal, yellow warbler 2, northern yellow-throat, ovenbird, western meadowlark 2, prothonotary warbler, myrtle warbler, phoebe.

WHITE - THROATED SPARROW. Nest with 3 eggs, June 9, near Biwabik, Olga Lakela.

VESPER SPARROW. Nest with eggs, June 6, Hennepin Co., George A. Rickert.

LINCOLN'S SPARROW. 3 nests, 5 eggs each, June 9, Cook Co., Brother Hubert.

FIELD SPARROW. 4 eggs in nest in wild rose bush near Afton, May 29, W. J. Breckenridge.

CHIPPING SPARROW. Nest with eggs, May 18, Hennepin Co., Wallace E. Hamilton; 9 eggs and young from May 13 to July 14, Ramsey Co., Russell Hofstead; 2 young, Duluth, July 8, Olga Lakela; 2 nests, Hennepin Co., May 22, nests with eggs, Washington Co., May 30, 3 nests with young, Wright Co., June 26, Don and Eldeen Jacobs; nest with 2 young and 2 nests with eggs, Itasca Park, July 20, William Longley.

CLAY-COLORED SPARROW. Nest, 3 eggs, Ramsey Co., July 8, Brother Hubert; nest with eggs, Ramsey Co., May 30, Russell Hofstead; young, Wright Co., June 28, Don and Eldeen Jacobs.

SONG SPARROW. 2 nests with 5

and 4 eggs, Ramsey Co., June 29 and July 27, Brother Hubert; nest with 3 eggs, Hennepin Co., May 18, Don and Eldeen Jacobs.

SLATE-COLORED JUNCO. 2 nests. 4 eggs each, June 7-12, Cook Co., Brother Hubert.

The following is a complete list of observers: W. J. Breckenridge, Brother Hubert, Olga Lakela, Don and El-

deen Jacobs, Mary I. Elwell, Evelyn Jones, Severena Holmberg, Russell Hofstead, Thos. Meyer, Brother Pius. Brother Leo, William Longley, Arnold Erickson, William H. Marshall, Lulu M. Aler, Fred Blanch, Larry Flahavan, Bruce Hanson, Elmo Magnusen, Mrs. Edgar O. Wilson, Mrs. Leon Smythe, Wallace E. Hamilton, J. K. Bronoel, George A. Rickert. Minneapolis, Minn.

All clubs or individuals who cooperate in taking the Christmas Bird Count should mail their notes to the editor as soon after the count as possible so the data can be compiled for publication in the March issue.

NOTES OF INTEREST

GOSHAWK NESTING IN ST. LOUIS COUNTY—Early in the spring of 1945, Mr. and Mrs. Arthur Roberts and their son Henry, again reported goshawks in the woods about their cabin at Denbigh, Gnesen Township, about sixteen miles north of Duluth, where two years previously goshawks in immature plumage were identified. At that time no conclusive breeding record was obtained, despite the empty nest some forty feet up in a poplar tree.

The hawks sighted this current year were in the gray plumage. During their week-end trips to the cabin, the Roberts recorded observations on the nesting activities. Usually a single bird was seen in the woods and about the nest. On April 8, Henry observed that the old nest had been repaired by addition of twigs. On April 29, and May 13, the hawk was sitting on the nest presumably in the act of incubation. On May 19, the writer with Mrs. I. A. Lupient, Miss Evelyn Jones, and several members of the Minneapolis Bird Club, also viewed the bird on the nest, curiously watching the intruders below.

On June 3, Dr. W. R. Bagley with the aid of the Roberts obtained motion pictures of the nest which was found to contain two downy young. To reach the nest level it was necessary to nail cleats to a nearby pine tree. Reportedly, the parent bird, without the appearance of the mate, flew about and cried in alarm, but made no attempt to dive at the observers. The two young in the nest were seen again on June 17, but a week later only one was found standing on the edge of the nest, its plumage mostly white but showing brown feathers. On July 4, the young bird was observed out of the nest on the nearby branch, and on the 7th it flew away to neighboring trees.

Dr. Bagley in vain made several attempts to photograph the feeding action. After the disappearance of one of the young, the parent bird became shy, remaining away from the nest during observations.

Dr. Bagley observed that during defecation, the young bird stood far out on the rim to clear the nest. As one observed the ground below, the excrement was deposited in a circle several feet in diameter.

As to food, there were no direct observations. In the woods near the nest rabbit fur, and bones, grouse feathers, and white feathers, probably those of chicken, were in evidence. Woodchucks inhabit the nearby fields, and chickadees and red-breasted nuthatches were heard but a few rods away from the nest. Olga Lakela, Duluth, Minnesota.

OBSERVATIONS ON THE GUNFLINT TRAIL—I decided to spend a few weeks on the Gunflint Trail this year at the beginning of, what I thought, was the nesting season. As it happened, I selected a rather cool spring. We, Frank Ostrowski and I, arrived in Duluth the day after a severe "northeaster" and a snowstorm. Our two trips to the Point were not fraught with auspicion. The principal find was a pair of marbled godwits which acted as though they were near their nesting site. Our time was limited so we had to forgo further observation. We decided on Loon Lake Lodge as the center from which we would carry out our search for nests. This place is about two miles from the Canadian border in northwestern Cook County.

The Wilderness Express deposited us there the evening of June 4. Next morning the temperature was down to 28 degrees and the morning after it registered 22 degrees. There was not a bud on the trees nor on any other plant. The days were warm.

Our second day out brought home to us that we were in the midst of the warbler migration. The blackburian seemed to be the most common. In the open spaces on our way up a high hill, we noticed several juncos. All were secretive. What we thought was a mouse darted from under some dried grass and roots of hazel brush. We followed and looked more carefully for the fugitive. It was a solicitous female junco. We examined the place from which she scurried, but we found nothing. Concealing ourselves behind small balsams, we watched until she came in and clambered under the dried grass which we had examined. We went back to search again. This time she came out three feet from where she went in. After following the lower tunnel for more than a foot, we found the nest hidden away under a large root covered with dead grass and leaves. This nest was on one of the highest points about the lake. A second junco nest was identical in every respect except that it was 25 feet from a beaver pond and near a well beaten trail. This nest was at least 200 feet lower in elevation than the first.

THREE NESTS OF THE LINCOLN'S SPARROW OR FINCH was our best find on the Trail. On our return from the falls, we flushed a bird which, on leaving the nest, acted just as did the junco. As it scurried before us, we noticed that it was brownish in color. Off the nest it was much more secretive than the junco. In fact, no matter how much we searched, we could not locate the bird. Following the tunnel from which she came, we found the nest was not so elaborately hidden. The second and third nests of the Lincoln's sparrow were exactly alike even to their being lined with deer hair and to their location under the same type of dead grass. They were situated a short distance up the bank of the lake. Each nest was about ten feet from the water's edge of Crab Lake. Five days later there were five young in each of two nests. We could not locate the third nest until about ten days later. At this time, large young were being fed in the nest.

The male and female were both bringing some dark larvae to the small young. The older birds were being fed beetles as well as larvae. Both male and female were very secretive whether on or off the nest, even when they brought food to the young. We concealed ourselves as best we could. Even then the parents would dart to the nest and stay only long enough to deposit the food. Although the nest was well concealed during incubation, the young could be seen through the dried grass as the feeding trips became more frequent. I removed the grass from over the nest containing the large young in order that I might observe the female bird as she approached the nest. The male would not come nearer than the lower branches of the dense, small balsams and spruces about the nest. The female at first would approach the nest in the same fast, nervous manner as before, but she hesitated to go where the grass was disturbed. This gave me the only good chance to observe the bird in full sunlight.

The only sound made by the mature birds was a soft, almost inaudible short liquid s-c-h-u-p. We heard no singing at any time. The eggs were darker than those of the song sparrow. The small young were covered with a decidedly blackish down.

We saw several other sparrows which acted and sounded as the nesting

birds, but we could not locate the nests because of the denseness of the grass and other growth. It is my opinion that this bird is a common nesting sparrow around the lakes and beaver ponds where the grass is plentiful. Brother Hubert, St. Paul, Minnesota.

Editor's Note: Since the above record of the Lincoln's sparrow nesting in Minnesota seems to be the first record for the State, it is unfortunate that a bird and a nest with eggs were not collected in order to establish the record beyond any doubt. —W.J.B.

PROTHONOTARY WARBLERS—While canoeing from Taylors Falls to Stillwater on June 28, we observed a male prothonotary warbler about a mile above Osceola. We followed him into the dense woods on the backwater. He circled about a dead, partly rotted tree which had several good nesting holes. After that we were on the alert for prothonotaries. Before reaching Stillwater, we counted nine singing males.

We decided to go to Marine at the earliest available date, and make an all-day survey from Marine to Stillwater. We noticed that most of the warblers were along the lower part of the river bottoms. We got away from Marine at 12:00 noon.

We found eleven males acting as though they had well defined territories. Besides there were three females feeding young in the nests and two feeding young out of the nests. The other six males circled about dead willows and other trees containing woodpecker holes suitable for nesting. We concluded that the females were incubating.

All but three of the nesting sites were in "drowned" dead trees, as a result of this year's high water in the St. Croix river. Most of the holes were in willows not more than six inches in diameter. A few were in tree trunks twelve or more inches in diameter. It is my opinion that a thorough search of the area above Stillwater will reveal many more prothonotaries than we found. Brother Hubert, St. Paul, Minnesota.

AMERICAN EGRETS NEAR MINNEAPOLIS—On August 11, 1945, I went to the Cedar Avenue bridge prepared to study a large concentration of shore birds that, during migration, had gathered there to feed on the mud flats of the bottom lands of the Minnesota River. After a few hours I noticed a motionless white object at some distance. Soon a second appeared and finally to my surprise, a third. Upon looking more closely, I could see that they were large white birds. A great blue heron began annoying them, causing them to fly about so that I was able to see their yellow bills and pure white plumage and could positively identify them as American egrets. They remained in the marshes between the Isaac Walton Bass Pond and the Cedar Avenue bridge for about five weeks. Sometimes they flew about a good deal, at other times I could see them perched in the trees of a willow grove, but more often they were on the ground, feeding. Due to the thick growth of arrowhead and rushes the entire probable number of them was never visible. Once at the Bass Pond when I approached close to them, five arose and flew to the opposite side of the marsh. They appeared to be a little smaller than the great blue heron, their wingbeat slightly faster, and their flight much more graceful. September 21, I stood on the ridge at the Bass Pond and watched them through my glasses for the last time. There were eleven of them, among their kin, the great blue herons, their plumage seemingly more dazzling white by contrast. They stood before a background of willows, their graceful images reflected in the water around them. Hunting season opened and the shooting must have driven them away.

This year two other reports of the American egret in Minnesota were received by Dr. T. S. Roberts. Frank B. Kolstad saw 15 in a slough near Lakefield, September, 1945, and I. S. Benson, DDS, reported two at Glenwood on September 20, 1945.

In the past there have been records of the American egret being seen in Minnesota and at one time they came to the marshes of the Minnesota River near Minneapolis. Under the year 1937, in his "Logbook of Minnesota Bird Life," Dr. Roberts states, "A number of American egrets have again been seen in the state this year and at widely scattered localities. A party of five spent several days at the Bass Pond near Minneapolis the third week in August, and single birds were seen by Mr. Breckenridge and others at neighboring localities." Mary Lupient, Minneapolis, Minnesota.

NOTES ON THE SHARP-SHINNED HAWK—I spent the summer of 1945, studying birds near my home at Brittmount, about 12 miles north of Virginia, St. Louis County. There were surprisingly few small birds in this vicinity, but the sharp-shinned hawks were numerous. It is believed that five pairs nested within a radius of a mile. I actually found only two nests but it was evident that there were more judging by the actions of the birds and later by the number of flying young. It was difficult to see the nests in the straggly evergreens. I kept a record of one nest. The nest, discovered on June 10, was at a height of some 25 feet in a dense growth of tamarack and contained six eggs with brown spots against a bluish background. On July 28, the young were fully fledged and ready to leave the nest. About 50 feet away was the "dining room." Beneath an old dried, half-fallen tamarack was a billowy carpet of feathers containing those of juncos and other species of sparrows. On one occasion the sharp-shinned hawk was seen to catch a robin. Scores of small birds had been eaten there.

EIGHT FEMALE MALLARD DUCKS were seen in late July in Big Sand Lake, Brittmount. However, the 17 ducklings, total number I observed, seemed to belong to three females, one with 3, one with 5, and another with 9 young. Elna Vesta Palm, Duluth, Minnesota.

HERRING GULLS NESTING AT BEAVER BAY—Despite the cloudy weather and wind, Dr. Olga Lakela and I set out on the morning of May 26, for Beaver Bay on the north shore of Lake Superior. The increasing mist and white caps made it seem dubious that we could get across to Pancake Island to check on herring gull nests, and to collect plants. However by 2:30 p.m., we decided it seemed favorable enough to attempt it. The Jacobsons took us across in their motored fishing boat, and left us there from three until about seven o'clock. Even though the white caps were not in evidence, the billowy swells reminded me of my ride on a roller coaster in Coney Island. It was fun (especially after you were safely landed). The temperature was in the forties.

Pancake Island is about four acres of rocky shores, pools, high cliffs, and woods in the center. One pool was a special delight to see with pink primulas blooming amidst the green mosses and rushes. The scanty grass nests of the gulls were everywhere. We counted 134 nests, 327 eggs, and 30 newly hatched young. A few of the latter had left their nests and hid in the vegetation or between rocks. Most nests contained three eggs. One nest was puzzling as it contained two large eggs and one small of the same shape and coloring.

Dr. Lakela visited the island later in July and counted 12 more nests in an area we hadn't searched carefully, but there was no sign of any eggs or

young. There were several dead adult gulls, one decapitated, which suggested a duck hawk which had been thought to nest on Beaver Bay cliff, about two miles away. Eleven species of birds were noted on the island.

The next day the wind and cold continued but we were lucky to strike a warbler migration on Beaver Bay Cliff. The remains and feathers of small birds indicated a hawk, but no nest or adult was seen. Never before had I seen a mourning dove that far north. In all, we checked 57 species seen or heard on our trip.

THE TUFTED TITMOUSE must be moving northward as Dr. Breckenridge said. Never had I seen one before in my home town at Black River Falls, Wisconsin. During Christmas, 1944, one titmouse could be plainly seen several times amidst a flock of tree sparrows, chickadees, and three pairs of cardinals, as they fed in the lowland shrubs by the river. Some friends near there said one had visited their feeding trays.

SANDHILL CRANES have been reported by the wardens to be nesting, the past two years, in the conservation area east of Black River Falls. Evelyn Jones, Duluth, Minnesota.

OBSERVATIONS NEAR ALEXANDRIA—I spent an interesting week at Lake Darling near Alexandria, Minnesota, from August 12 to 18. On our trip into the Twin Cities we saw numerous American bittern in the swampy areas along the railroad tracks. Driving west the mourning doves became more abundant and why they should sit on telephone wires when it was 95 degrees in the shade is more than we could understand. We saw a field literally covered with blackbirds feeding, my conservative estimate would be at least ten thousand. The birds on the fringe of the field were "redwings." Our first morning at the lake, we were awakened by the laughing of the loons, a pair of house wrens just back of the cottage, and a pewee that insisted on singing from early morning until dark. Upon investigating a lot of chatter in the grove adjacent to the road, I discovered a family of crested flycatchers, with the young almost fullgrown. Yellow warblers and goldfinches darted to and fro, and a catbird appeared and decided I was harmless. I was pleasantly surprised to find a pair of black-capped chickadees and a white-breasted nuthatch. Chipping sparrows with their bright caps and warbling vireos and their young were everywhere.

During other trips in the woods, I also discovered a downy woodpecker, flicker, blue jays, and a hummingbird. On the water and shores the kingfishers, piping plovers, spotted sandpipers, black terns, and herring gulls were numerous. The gulls possessed a point of shallow water and about fifty gulls stretched out in a straight line from shore as though forming a net for any luckless fish that happened to swim by. Occasionally they rose with a loud noise and fought to scoop up small fish that we had thrown out a few yards from the boat and at other times they drifted overhead and searched for choice morsels that might be on the waters. Chimney swifts and tree swallows abounded in the air and now and then a mallard would fly low overhead. The usual number of marsh hawks and sparrow hawks were seen along the road, and purple martins lined the wires near their homes. I failed to see a single ring-necked pheasant. J. K. Bronoel, Duluth, Minnesota.

HILLTOP ACRES SANCTUARY—(The following data from a letter from Mrs. Paul A. Becker on the birds nesting about her summer home near Walker should certainly set a goal for many of us to attain in the field of attracting birds to our homes. The letter came too late to be included in our nesting records. W.J.B.)

"The following report is for 3½ acres in Pine Lake township, Cass County, on a hill overlooking the south shores of Leech Lake.

"OPEN NESTING BIRDS. purple finch (balsam) 1; kingbird (R.E.A. condenser) 1; yellow warbler (2 sheepberry, 1 choke cherry, 1 birch) 4; warbling vireo (1 birch, 1 basswood) 2; catbird (2 low brush, 1 high brush) 3 (a fourth nest destroyed with 4 eggs); robin (1 birch, 2 oak) 3; oriole (4 birch) 4; least flycatcher (8 birch, 1 oak) 9; waxwing (5 oak, 1 bittersweet, 1 birch, 1, Chinese elm) 8; chipping sparrow (2 wild rose, 2 balsam, 4 spruce) 8. Total: 43 nests.

"HOUSE NESTING BIRDS. starlings 1; purple martins (9 houses totaling 143 apartments) 125; blue birds (7 eggs, 7 young to maturity) 2; phoebe (2 pr. each nested twice, a third pr. had nest destroyed) 4; robins (roosts) 5; wrens (104 eggs, 8 not fertile, 2 young died in nest, 7 ready to leave, eaten by chipmunk) 18; tree swallows (185 eggs were incubated, plus 27 known destroyed, 18 eggs not fertile, 15 young died in nest, one a nest of 6 in a huddle, apparently mother killed and they chilled to death, a week-old nest of 4 with holes in head, a day-old nest of 3 with holes in head, 2 young were left in nests, dead) 36. Total: 191 nests.

"There were 79 houses put up with inch and a half openings. We added three houses in August, making 82, and hope to make 18 more this winter, to have 100 houses with inch and a half openings ready for the spring of 1946." Ethel Cook Becker, Hilltop Acres Sanctuary, Star Route, Walker, Minnesota.

DULUTH BIRD CLUB—The first fall meeting of the Duluth Bird Club was a hike on Park Point on a beautiful and brilliant Sunday morning (8:30). The temperature was ideal, between 70° and 75° with only a slight breeze—maybe 5 miles per hour. Thirteen of us, including three new members made the trip and were rewarded by seeing 42 species of birds. It had been reported by other members that only a few warblers were to be seen on the Point a few days previously and the presence of the large number on this day assured us that the southward flight was on. The following warblers were seen: black and white, yellow, magnolia, Cape May, black-throated blue, myrtle, black-throated green, bay-breasted, pine, palm, northern yellow-throat, Canada, and the redstart.

The shore birds seen were: piping plover, semipalmated plover, golden plover, black-bellied plover, spotted sandpiper, and the sanderling. Dr. Lakela explained that the plovers, with the exception of the piping plover are not resident in Minnesota but were in flight from the Arctic regions. Henry Gilbert, Duluth, Minnesota.

OBSERVATIONS NEAR ST. PAUL—On Sunday, October 28, 1945, 32 members of the newly formed St. Paul Bird Club, led by Brother Hubert Lewis of Cretin high school, St. Paul, had the pleasure of observing two evening grosbeaks resting in a tree along the stream connecting Vadnais and Sucker Lakes, approximately eight miles north of St. Paul. The birds seemed ragged and bedraggled and appeared content to rest in the tree, undisturbed by the spectators.

Other species observed were: 10 pied-billed grebes, 27 mallards, 21 ring-necked ducks, 4 golden-eye, 2 buffle-heads, 3 American mergansers, 2 rough-legged hawks (dark phase), 1 marsh hawk, 1 coot, 5 ring-billed gulls, 1 black-billed cuckoo, 1 flicker, 1 downy woodpecker, 7 blue jays, 1 crow, 8 black-capped chickadees, 1 white-breasted nuthatch, 3 golden-crowned kinglets, 2 starlings, many English sparrows, 4 red-winged blackbirds, 12 rusty blackbirds, 2 bronzed grackles, 1 cardinal, 2 evening grosbeaks, 1 goldfinch, 6 slate-colored juncos, 15 tree sparrows, 2 white-throated sparrows, 1 song sparrow, 6 Lapland longspurs. Rhoda Green, St. Paul, Minnesota.

ST. CLOUD BIRD CLUB—At the first fall meeting of the St. Cloud Bird Club the members related various interesting accounts of bird observations.

Loretta Rosenberger reported that during the winter sparrows took possession of the martin houses in their yard. When the martins returned in the spring they found themselves homeless. The Rosenbergers had the houses cleaned and made ready. Still the martins would not enter. The intruding branches on the trees were cut away to give an extra welcome to the regular tenants. Again the martins would not stay, but they built their nests in neighboring bird houses. Sparrows may again have taken possession of the houses before the branches were cut away.

Alys Mayman confirmed the fact that the martins object to sparrows as well as to overhanging branches. Sparrows occupy their martin houses every winter. Last year some of the evergreens, near the pole on which one of the bird houses is perched, reached the height at which their tops surround the house. The martins took possession of the house that was higher and freer and left the one with the evergreen near it for the sparrows.

Mrs. Pluth enjoyed the yellow warbler's nest near her summer home at Birch Lake. There were three little eggs in it. One day she and her husband saw a cowbird hovering near the nest. They watched it closely because they expected it to perform the time honored trick of laying an egg in the yellow warbler's nest. The cowbird surprised them by diving into the nest and coming out with a little egg in its bill. It flew into the woods. The observers examined the nest and found only two eggs remaining. What the cowbird did with the third egg, they do not know. Monica Misho, Sauk Rapids, Minnesota.

- CALL NOTES -

Five years ago on September 28, the Minnesota Museum of Natural History at the University of Minnesota was officially opened to the public. During that time over 230,000 visitors have passed through its doors.

The annual winter series of lectures on wildlife subjects was resumed on Sunday, November 4, and will be continued each Sunday at 3 p. m. through March 31. These lectures are free and the comfortable auditorium of the attractive museum building is filled to capacity every Sunday. A large number of the people take advantage of the opportunity to view the habitat groups of Minnesota birds and animals both before and after the lectures. One of the newest habitats is the sandhill crane group.

The majority of the programs are presented by Dr. W. J. Breckenridge. The schedule of the winter programs is as follows: December 30, "Wildlife of Mt. McKinley, Alaska"; January 6, "Eastern Minnesota Wildlife"; January 13, "Nature's Control of the Insect Menace," Dr. A. C. Hodson, associate professor of entomology, University of Minnesota; January 20, "Forestry and Wildlife"; January 27, "Wildlife in Illinois"; February 3, "Taming Wild Fruits," Dr. Arthur N. Wilcox, associate professor of horticulture, University of Minnesota; February 10, "Birdlife of our Waterways"; February 17, "Falconry"; February 24, "Minnesota Waterbirds"; March 3, "Furbearing Animals," Dr. William H. Marshall, associate professor of economic zoology, University of Minnesota; March 10, "Wild Animal Pets"; March 17, "Southern Minnesota Wildlife"; March 24, "Men, Molds, and Mushrooms," Dr. Clyde Christensen, assistant professor of plant pathology, Univ-

ersity of Minnesota; March 31, "Get Acquainted with Local Birds."

Don and Eldeen Jacobs compose a team of FLICKER writers who make their first appearance in our pages. They have been busy all summer during their spare moments taking pictures of birds and their nests and, as a result, have about a hundred kodachrome slides. They are interested in all the natural sciences. Mr. Jacobs is the past president of the Minneapolis Aquarium Society, and Mrs. Jacobs is active in the Minnesota Botanical Society. They are members of the Minnesota Bird Club.

William Longley, is back at the University of Minnesota again where he has been assigned the job of writing the natural history news for the MINNESOTA DAILY. He worked for the U. S. Forestry Service during the summer months doing portage reconnaissance work in northern Minnesota. He reports that the trappers and woodsmen, that he came in contact with, were either ignorant of the bird protection laws or deliberately violated them. Many a bird is still alive because of Bill's restraining influence.

Now that many of the members of the Minnesota Bird Club have returned from service, the club has been reorganized and will meet regularly on the second Thursday of each month from October to June at the Minnesota Museum of Natural History, University of Minnesota.

The following officers have been elected: Lt. Warren H. Nord, president; Lyman Newlin, vice president; Mrs. I. A. Lupient, secretary; George N. Rysgaard, treasurer. The president, Lt. Nord, is stationed in St. Paul, where he is the public relations officer in the United States engineer office.

From Rhoda Green, associate editor of THE CONSERVATION VOLUNTEER, comes this news item about our youngest bird club.

Thursday, October 18, 1945, marked the initial meeting of the new St. Paul Bird Club. One hundred twenty-five people attended the gala opening night which featured Dr. W. J. Breckenridge and his sandhill crane movies taken this spring near the Platte River in Nebraska. A nominating committee composed of Mrs. R. W. Elliott, Miss Irene Knapton, and William Longley, and an organization committee composed of Mrs. Dorothy Beard, Miss Rhoda Green, and William Cummings were appointed by the temporary

chairman, Kenneth Morrison.

Miss Perrie Jones, librarian of the St. Paul public library, offered the Exhibition Room on the third floor of the downtown library as a meeting place for the fledgling organization.

Brother Hubert Lewis of Cretin high school, St. Paul, led the first field trip of the club to Lake Vadnais and surrounding territory on Sunday, October 28, the results of which are listed under "Notes of Interest."

Plans are being made for the St. Paul Bird Club to participate in the annual Christmas bird census. The group will choose an accessible area which can be censused each year.

Minnesota Ornithologists' Union

Affiliated Societies

CLOQUET BIRD CLUB

Officers: President, Miss Georgiana Sanford; Vice-President, Miss Doris Anderson; Secretary-Treasurer, Miss Edith Sanford; Editor, Miss Marie Kennedy.

Meetings are held the first and third Thursdays of each month in the Cloquet High School at 7:30 p.m.

DULUTH BIRD CLUB

Officers: President, Joel K. Bronoel; Vice President, Miss Frances Riddle; Secretary, Miss Mollie Korgen; Treasurer, Miss Harriet Lockhart.

Meetings are held the second Wednesday of each month at 7:45 p.m. at the Duluth State Teachers College.

LAKEVIEW BRANCH OF THE DULUTH BIRD CLUB

Officers: President, Miss Freida Beier; Vice-President, Mrs. John Thomas; Secretary-Treasurer, Mrs. Wm. Wernowsky.

Meetings are held the fourth Wednesday of each month at 8:00 p.m. in the homes of the members.

MINNEAPOLIS AUDUBON SOCIETY

Officers: President, Mrs. E. D. Swedenborg; Vice President, Miss Kern Bayliss; Treasurer, Mrs. Lloyd M. Steirly; Recording Secretary, Mrs. Floyd Brown; Corresponding Secretary, Mrs. Walter B. Young; Field Secretary, Mrs. C. R. Procter; Auditor, Miss Cathryne Yerxa.

Meetings are held the first Friday of each month at 2:00 p.m. at the Walker Branch Library. Field trips during April and May on Tuesdays, Wednesdays, and Fridays.

MINNEAPOLIS BIRD CLUB

Officers: President, Mr. Luther B. Gilbert; Vice-President, Miss Severena C. Holmberg; Secretary, Miss Florence Nelson; Treasurer, Miss Helen Towle; M.O.U. representative, Miss Gladys Peters.

Meetings are held the first and third Tuesdays of each month at 7:30 p.m. at the Minneapolis Public Library.

MINNESOTA BIRD CLUB

Officers: President, Lt. Warren H. Nord; Vice President, Lyman Newlin; Secretary, Mrs. I. A. Lupient; Treasurer, George N. Rysgaard.

Meetings are held the second Thursday of each month, except in June, July, August, and September, at 8:00 p.m. at the Minnesota Museum of Natural History.

ST. CLOUD BIRD CLUB

Officers: President, Mrs. A. J. Trainor; Vice-President, Miss Monica Misho; Secretary-Treasurer, Miss Loretta Rosenberger.

Meetings are held the first Wednesday of each month October through March at 8:00 p.m.

T. S. ROBERTS ORNITHOLOGICAL CLUB

Officers: President, Edmund Hibbard; Vice-President, Andrew Wilson; Secretary, Constance Stelzig; Treasurer, Haruko Matsushita; Advisor, Prof. G. W. Friedrich.

Meetings are held bi-monthly February through May at the St. Cloud Teachers College.

Minnesota Ornithologists' Union

Affiliated Societies

CLOQUET BIRD CLUB

Officers: President, Miss Georgiana Sanford; Vice-President, Miss Doris Anderson; Secretary-Treasurer, Miss Edith Sanford; Editor, Miss Marie Kennedy.

Meetings are held the first and third Thursdays of each month in the Cloquet High School at 7:30 p.m.

DULUTH BIRD CLUB

Officers: President, Miss Alma Chesley; Vice-President, Miss Frances Riddle; Secretary, Miss Mollie Korgen, Treasurer, Miss Harriet Lockhart.

Meetings are held the second Wednesday of each month at 7:45 p.m. at the Duluth State Teachers College.

LAKEVIEW BRANCH OF THE DULUTH BIRD CLUB

Officers: President, Miss Freida Beier; Vice-President, Mrs. John Thomas; Secretary-Treasurer, Mrs. Wm. Wernowsky.

Meetings are held the fourth Wednesday of each month at 8:00 p.m. in the homes of the members.

MINNEAPOLIS AUDUBON SOCIETY

Officers: President, Mrs. E. D. Swedenborg; Vice-President, Miss Kern Bayliss; Treasurer, Mrs. Lloyd M. Steirly; Recording Secretary, Miss Anna Klint; Corresponding Secretary, Mrs. Floyd Brown; Field Secretary, Mrs. C. R. Proctor; Auditor, Mrs. Stuart Green.

Meetings are held the first Friday of each month at 2:00 p.m. at the Walker Branch Library. Field trips during April and May on Tuesdays, Wednesdays, and Fridays.

MINNEAPOLIS BIRD CLUB

Officers: President, Mr. Luther B. Gilbert; Vice-President, Miss Severena C. Holmberg; Secretary, Miss Florence Nelson; Treasurer, Miss Helen Towle; M.O.U. representative, Miss Gladys Peters.

Meetings are held the first and third Tuesdays of each month at 7:30 p.m. at the Minneapolis Public Library.

MINNESOTA BIRD CLUB

Officers: President, Arnold B. Erickson; Vice-President, Kenneth Carlander; Secretary-Treasurer, W. J. Breckenridge.

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ST. CLOUD BIRD CLUB

Officers: President, Mrs. A. J. Trainor; Vice-President, Miss Monica Misho; Secretary-Treasurer, Miss Loretta Rosenberger.

Meetings are held the first Wednesday of each month October through March at 8:00 p.m. in the Central Junior High School.

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