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THE FLICKER

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Summer Bird Observations at Lake of the Woods

By Gustav Swanson and Kenneth Carlander

THERE are many reasons why Lake of the Woods is an exceptionally interesting area, and why it attracts thousands of visitors each year. The sportsman finds it a fertile fishing ground, particularly noted for its muskellunge. The student of Minnesota history is interested in its connection with the early fur trade, for as early as 1732 La Verendrye had established a fort and post on its shores. The naturalist finds it one of the best regions in the state, presenting opportunities to observe many birds and mammals rare or lacking elsewhere. It is especially well known for its big game. It is here that moose survive in fairly large numbers, that the last pitiful remnant of woodland caribou is found, and that elk have been established again as a member of our big game list. The list which accompanies this paper will present a picture of the bird-life to be found chiefly in the summer months. Mr. P. O. Fryklund of Roseau has for many years been a student of the natural history of the territory, and has been responsible for many of the rarer finds in the Lake of the Woods area. More recently Mr. Jack Manweiler has been stationed at Baudette, and has contributed much to our knowledge of the natural history of the vicinity. This list, however, includes only species seen by the authors.

The lake, and its surrounding area, is probably of greatest interest to the individual who sees and appreciates nature in all of its various phases. Fourteen thousand islands or more have been counted in Lake of the Woods, and the majority of them are covered with virgin forest, because they were too inaccessible to interest the lumberman. The boat-trip which may be taken from Warroad to Kenora, Ontario, passes among hundreds of these islands and serves well to give one a bird's eye view of the lake.

The observations in this paper cover only a few months, and so are by no means complete, even as a summer list, but they may serve to interest other Minnesotans sufficiently in the area to stimulate further study of the bird-life of Lake of the Woods. In 1932 one of us (GS) spent the period July 20 to August 30 in the Lake of the Woods area, studying the natural history and making a collection of the small mammals for the University of Minnesota Museum of Natural History. Two weeks of this period were spent in the vicinity of Williams, a few miles directly south of the lake, and observations made there are included in the paper. Most of the time was spent, however, on the lake itself, either on the south shore or on the North-

west Angle. In 1938 Swanson was again in the area, this time for over three weeks in July. In 1939 Carlander, together with his wife and Mr. Jesse Douglas, were in the area for nearly three months in July, August, and September, studying the commercial fisheries of the lake for the State Conservation Department. On a number of occasions between 1932 and 1939 Swanson has made brief visits to the region, and some of the notes from these visits are also included. On almost every visit both authors have received invaluable assistance and suggestions from many members of the State Division of Game and Fish, particularly Wardens Ed Pohrte, Conrad Olson, Edward Carlson, and Fred Petroske, to whom thanks are due. Swanson is also greatly indebted to Mr. P. O. Fryklund and Mr. Jack Manweiler, for much assistance and many favors.

The following list contains 158 species, all but 3 of which were seen in summer.

Loon. Not common, but seen a number of times each summer.

Holboell's Grebe. Most common in Northwest Angle Inlet but seen in a number of other places on the lake in 1938 and 1939.

Horned Grebe. A few seen in Four Mile Bay and in Angle Inlet in 1938 and 1939.

Pied-billed Grebe. Common in all suitable parts of the lake. On August 28, 1932 at American Point on the Northwest Angle, an exceptionally late brood of young was discovered. They appeared to be about 4 days old on that date.

White Pelican. The fishermen reported that in 1937 pelicans were first seen on the lake, and in 1938 GS saw a few of them in July, and found evidence of an unsuccessful nesting on an island on the Canadian side of the lake.

Double-crested Cormorant. Common in all parts of the lake. Called "crow ducks" and despised by the commercial fishermen because they enter the pound nets and destroy many fish. Many also enter the hoop nets, in which they drown since the trap is entirely below the water's surface. The pound net damage by cormorants could be easily and inexpensively controlled by covering the "crib" or "pound" with netting to prevent the birds from entering. Small nesting colonies of cormorants are scattered in a number of places in the lake. The best known ones are Gull Rock (Cormorant Rock) near the south shore, Crow Duck Island near the north edge of the Minnesota waters, and Dream Island in Canadian waters.

Great Blue Heron. Common, especially in the vicinity of pound nets, where it, too, does much of its fishing. No nesting colonies discovered.

American Bittern. Common in the marshes adjoining the lake. On August 1, 1932 a nest with 3 young was reported on Flag Island.

Green Heron. A pair seen a number of times in a swamp near Morris Point in 1939 (KC).

Mallard. Common nesting duck. Charles Fernstrom found a nest, containing eggs, 7 feet above the ground in an old crow's nest early in June, 1932.

Gadwall. Four seen July 21, 1932 and a small flock noted August 19, 1939, both times in Four Mile Bay.

Baldpate. A few seen in 1939 (KC).

Blue-winged Teal. Quite common as a nesting species, particularly at the mouths of the rivers flowing into the lake. Twelve young in Bostig Bay July 14, 1939 and 4 young in the Rainy River July 13, 1939.

Shoveler. A pair seen in Four Mile Bay August 18, 1939 (KC).

Lesser Scaup. Seen throughout the summers of 1938 and 1939 in the Four Mile Bay area.

Goldeneye. Common nesting species throughout the lake.

White-winged Scoter. A number seen (KC) after August 25, 1939.

Hooded Merganser. A brood of young July 20, 1932 on the south shore (GS).

American Merganser. A common nesting species seen often among the rocky islands. July 23, 1932 a group of 26

young, ¾ grown, was seen near Long Point, and August 23, 1932 a group of 21 young was seen at the Northwest Angle. In each case two or more broods must have joined (GS).

Red-breasted Merganser. A flock of about 40 seen by Carlander August 24, 1939 near Oak Island.

Turkey Vulture. Fairly common each summer.

Sharp-shinned Hawk. Seen but once, August 23, 1932 near American Point, NW Angle (GS).

Red-tailed Hawk. Quite common south of the lake.

Broad-winged Hawk. Seen once at the NW Angle (August 19, 1932, GS) and a nest with 3 young discovered July 29, 1932 near Williams (GS).

Golden Eagle. Three seen by Swanson and W. J. Breckenridge in November 1935 near upper Red Lake.

Marsh Hawk. Common in summer.

Osprey. Common among the islands, less so on the south shore. In 1932 3 nests were found, all occupied by young. One was near Williams, one on Brush Island, and one in Ontario just across the bay from the NW Angle (GS).

Duck Hawk. One seen on south shore August 18, 1939 (KC).

Pigeon Hawk. One seen near Wheeler's Point July 18, 1939 (KC).

Sparrow Hawk. Quite common.

Canada Spruce Grouse. Seen occasionally in the Northwest Angle.

Ruffed Grouse. Common resident.

Sharp-tailed Grouse. Common both south of the lake and in the cut-over and burned-over areas of the NW Angle.

Hungarian Partridge. Pohrte stated that a number were planted before 1932 near Long Point on the south shore, but they apparently did not survive.

Ring-necked Pheasant. Several seen near Baudette. Not thriving, but have maintained themselves in very small numbers for some time. Ill-suited to this area, however.

Sora Rail. One seen near Four Mile Bay July 18, 1939 (KC).

Coot. Quite common.

Piping Plover. Common nester on Pine and Curry Islands. Sometimes seen along the south shore, but apparently not nesting there. On July 20, 1932 several broods of small young were seen, some empty nests, and on July 21 a nest with two eggs, one of which hatched by the next day. On July 5, 1938 15 nests were found on these two islands, all containing eggs (GS).

Semipalmated Plover. Migrant. One seen July 21, 1932 (GS).

Killdeer. Common summer resident.

Black-bellied Plover. One seen on Pine Island August 20, 1939 (KC).

Wilson Snipe. One near Long Point July 23, 1932 (GS).

Spotted Sandpiper. Common.

Solitary Sandpiper. One at Williams Aug. 3, 1932 (GS), and one near Morris Point Aug. 19, 1939 (KC).

Greater Yellowlegs. A few in Bostig Bay Aug. 19, 1939 (KC).

Lesser Yellowlegs. Quite common, non-breeders being seen throughout the summer.

Pectoral Sandpiper. Also common as a non-breeder in summer, more so as a migrant. Pine and Curry Islands are among the best spots for shore-birds in the area.

White-rumped Sandpiper. One on Pine Island July 21, 1932 (GS).

Baird's Sandpiper. Twelve seen on Pine Island July 21, 1932 and a few August 20, 1939.

Least Sandpiper. A few loafers in July; more common in August.

Semipalmated Sandpiper. July 20-22, 1932 there were hundreds on Pine and Curry Islands. Also seen 1938 and 1939.

Wilson Phalarope. A few near Big Island August 23, 1939 (KC).

Herring Gull. Common. Nests on many islands in the lake.

Ring-billed Gull. A few stray non-breeders mingle with the herring gulls.

Bonaparte's Gull. Ten seen July 20, 1932 near Curry Island, 40 on July 23

near Long Point, and several Aug. 13, 1932, between Kenora and American Point. No evidence of breeding. Unobserved in other years (GS).

Common Tern. Very common, nesting on a number of the islands, particularly Pine and Curry.

Caspian Tern. On July 20, 1932 a group of 5 was seen on the south shore, and July 23 in the same vicinity 15 were seen (GS). One seen Aug. 22, 1939 near Bostig Bay. No evidence of nesting was found, but possibly some of the islands on the Canadian side have nesting colonies as many of them have not been explored sufficiently.

Black Tern. Common, especially in Four Mile Bay and the mouth of the Rainy River.

Mourning Dove. Common south of the lake.

Yellow-billed Cuckoo. One seen near Wheeler's Point July 18, 1939 (KC).

Black-billed Cuckoo. Fairly common near Wheeler's Point in 1939 (KC).

Great Horned Owl. Common between Lake of the Woods and Red Lake.

Hawk Owl. Erratic in its appearance. Very common the winter of 1935-36. Several seen south of lake in October, 1935 (GS).

Barred Owl. One seen near Baudette July 19, 1939 (KC).

Great Gray Owl. Seen a number of times in August, 1939 by Manweiler, and two seen Aug. 22, 1939 a few miles southwest of Baudette (GS).

Whip-poor-will. One near Williams July 28, 1932 and one at Penasse Aug. 27, 1939.

Nighthawk. Common summer resident and migrant.

Chimney Swift. Common.

Ruby-throated Hummingbird. Fairly common in 1939 (KC).

Belted Kingfisher. Common.

Flicker. Common.

Pileated Woodpecker. Quite common, known locally as the "Woodcock."

Red headed Woodpecker. Common south of lake.

Yellow-bellied Sapsucker. Common everywhere.

Hairy Woodpecker. Common.

Downy Woodpecker. Common.

Arctic Three-toed Woodpecker. Common in the NW Angle in August, 1932 (GS).

American Three-toed Woodpecker. Common in the NW Angle in August, 1932 (GS).

Kingbird. Common. Nest and eggs July 15, 1939, Rainy River.

Crested Flycatcher. Common summer resident.

Phoebe. Common. Especially fond of nesting under the eaves of abandoned cabins in the woods. Nest, 5 eggs, Wheeler's Point, July 16, 1939.

Yellow-bellied Flycatcher. Not rare in 1939 (KC).

Alder Flycatcher. Common.

Least Flycatcher. Common.

Wood Pewee. Seen in 1932 both on the south shore and in the NW Angle.

Olive-sided Flycatcher. Not common. Seen at Williams July 25, 1932 (GS).

Horned Lark. Common along roads south of the lake, especially during migrations.

Tree Swallow. Common.

Bank Swallow. Common.

Rough-winged Swallow. Fairly common, 1939 (KC).

Barn Swallow. Common.

Purple Martin. Common. On Flag Island several houses were all occupied in 1938.

Canada Jay. Most common in the NW Angle.

Blue Jay. Found everywhere.

Crow. Abundant everywhere.

Black-capped Chickadee. Common.

Hudsonian Chickadee. Seen commonly in the NW Angle in 1932 (GS).

White-breasted Nuthatch. Common.

Red-breasted Nuthatch. Abundant in the NW Angle in 1932 (GS).

Brown Creeper. Seen only in the NW Angle, 1932 (GS).

House Wren. Common.

Winter Wren. Heard in full song Aug. 19 and 21, 1932 in the NW Angle.

One seen on Oak Island July 20, 1939.

Catbird. Common south of the lake.

Brown Thrasher. Common.

Robin. Common.

Hermit Thrush. Fairly common. A nest with two half-grown young found Aug. 1, 1932 at Williams (GS).

Olive-backed Thrush. Quite common.

Gray-cheeked Thrush. A specimen taken in a mouse trap Aug. 17, 1932 at American Point. Fairly commonly observed.

Willow Thrush (Veery). Fairly common.

Blue bird. Common.

Golden-crowned Kinglet. Quite common in spruce bogs.

Cedar Waxing. One of the commonest birds.

Migrant Shrike. Seen quite regularly south of the lake.

Starling. Several seen in 1938 in the NW Angle, late July. Commonly observed south of the lake in 1939.

Yellow-throated Vireo. One, July 18, 1939 near Wheeler's Point (KC).

Red-eyed Vireo. Common.

Warbling Vireo. Fairly common in 1939 (KC).

Black and White Warbler. Commonest in the NW Angle. A warbler migration was apparently taking place in this area Aug. 19 to 23, 1932, for many of the warblers not seen at other times were noted during this period.

Yellow Warbler. Common (KC) 1939.

Orange-crowned Warbler. Common after fall migration had begun Aug. 23, 1932 (GS).

Nashville Warbler. Same as last species.

Cape May Warbler. Appeared on our bird lists only in August, 1932, from the 23rd on.

Myrtle Warbler. Common summer resident and migrant.

Blackpoll Warbler. Seen in the NW Angle commonly after Aug. 23, 1932 (GS).

Pine Warbler. Young out of nest July 24, 1939, being fed by adults, near Wheeler's Point (KC).

Palm Warbler. Observed only in the late August migration wave in 1932 (GS).

Ovenbird. Common summer resident.

Grinnell's Waterthrush. Aug. 23, 1932 in the NW Angle. (GS).

Northern Yellowthroat. Common.

Wilson's Warbler. Seen only in the late August migration, 1932, in the NW Angle.

Redstart. Common.

English Sparrow. Common.

Bobolink. A few near Wheeler's Point, 1939 (KC).

Eastern Meadowlark. One identified as this species July 7, 1939 near Baudette (Carlander).

Western Meadowlark. Common.

Yellow-headed Blackbird. Common. Nesting on Curry Island.

Red-winged Blackbird. Common.

Baltimore Oriole. Common.

Rusty Blackbird. Common after migration began in fall.

Brewer's Blackbird. Common nester.

Bronzed Grackle. Common.

Cowbird. Common.

Scarlet Tanager. Seen only July 17, near Baudette, in 1939 (KC).

Dickcissel. Fairly common near Baudette in 1939 (KC).

Purple Finch. Quite common in summer.

Goldfinch. Common.

Redpoll. Very common in November 1935 and March 1936 north of Red Lake.

Savannah Sparrow. Common.

Grasshopper Sparrow. One, July 7, 1939 near Baudette (KC).

Vesper Sparrow. Common in 1939 (KC).

Slate-colored Junco. Common.

Chipping Sparrow. Common.

Clay-colored Sparrow. Common, in 1932 (GS).

White-throated Sparrow. Common.

Swamp Sparrow. Quite common.

Song Sparrow. Common.

Lapland Longspur. Large numbers seen in October, 1935, near Baudette.

Snow Bunting. Many together with the last species. *Division Economic Zoology, University of Minnesota.*

Highway Destruction of Vertebrates

By G. N. Rysgaard

THE FACT that automobiles traveling upon our modern highways at high speed annually take a large toll of wildlife is well-known to many. However, few realize the full significance of this decimating factor.

To satisfy myself as to the actual loss of wildlife thus incurred, I selected an area typical of the roadside country bordering Highway 61 between St. Paul and the southern edge of the coniferous woods in northern Pine County.

On June 19, 1939, after a night of severe rain, I walked three miles along the highway northward from North Branch, Minnesota. Each vertebrate found dead on one-half of the pavement and its adjacent shoulder over this three mile course was tabulated. No domestic animals were included in the survey.

The following tabulation summarizes the data collected:

Amphibians	
Leopard Frog, *Rana pipiens*	109
Green Frog, *Rana clamitans*	2
Common Toad, *Bufo americana*	16
Unidentified amphibians	3
Total amphibian kill	130
Reptiles	
Snapping turtle, *Chelydra serpentina*	4
Painted Turtle, *Chrysemys picta bellii*	2
Total reptile kill	6
Birds	
Eastern Robin, *Turdus migratorius*	2
English Sparrow, *Passer domesticus*	1
Baltimore Oriole, *Icterus galbula*	2
Eastern Meadowlark, *Sturnella m. magna*	1
Eastern Yellow Warbler, *Dendoica a. aestiva*	1
Red-headed Woodpecker, *Melanerpes erythrocephalus*	1
Red-winged Blackbird, *Agelaius phoeniceus arctolegus*	1
Unidentified birds	1
Total bird kill	10
Mammals	
Striped Ground Squirrel, *Citellus t. tridecemlieneatus*	1
Meadow Mouse, *Microtus pennsylvanicus*	1
Deer Mouse, *Peromyscus leucopus noveboracensis*	1
Cottontail Rabbit, *Sylvilagus floridanus mearnsii*	1
Woodchuck, *Marmota monax*	2
Unidentified mammals	1
Total mammal kill	7

In all, 153 vertebrate forms were found dead on one half of the roadway. There is little reason to suppose that fewer dead were to be found along the opposite side of the highway. Presuming such to be true, the total for the three mile course would be 306, or an average of 102 per mile of highway. Amphibians were represented by 85%, birds by 6.5%, mammals by 4.5%, and reptiles by 3.9%. The high percentage of amphibians was induced by the high humidity at which time the amphibians are most active in their night wanderings from the lowlands.

The majority of the animals counted were forms killed within the last 24 hours, and it is doubtful whether any of them were killed more than 48 hours previously, for in that length of time they become unrecognizable on much-traveled highways.

To consider 100 vertebrates killed per mile of highway within a 48 hour period between St. Paul and the southern edge of the coniferous belt along highway 61, one would have a death of some 10,000 vertebrates during this two-day period.

I hope to re-check this area again at other seasons and under different weather conditions to gain a more thorough knowledge of the year around effect. *W. K. Kellogg Bird Sanctuary, Augusta, Michigan.*

Winter Bird Census, 1939

By **H. J. Paul**

THE summary of the several bird censuses made by members of the Minnesota Ornithologists' Union, which follows, was compiled from 6 separate reports covering 8 localities.

STEWARTVILLE. Minnesota Bird Club members made 2 field trips on December 23. One of these was to Stewartville in Olmstead County. Here a party consisting of Dr. Alden Risser, Mr. Arnold Erickson, Mr. George Rysgaard, Mr. James Struthers, Mr. Dana Struthers, and Mr. Horace Paul, made an all day survey of the Root and Bear river valleys east of Stewartville on a clear windy day with the thermometer hovering around 20°F. and 6 inches of snow underfoot.

The following birds were seen in and near the river valleys between 8 a.m. and 3 p.m.: 5 red-tailed hawks, 2 ring-necked pheasants, 1 mourning dove, 1 great horned owl, 2 belted kingfishers, 3 pileated woodpeckers, 4 red-bellied woodpeckers, 6 hairy woodpeckers, 8 downy woodpeckers, 28 blue jays, 60 crows, 24 black-capped chickadees, 19 white-breasted nuthatches, 1 robin, 4 golden-crowned kinglets, 75 starlings, 2 western meadowlarks, 12 cardinals, 6 redpolls, 28 goldfinches, 160 slate-colored juncoes, 42 tree sparrows, and one song sparrow. All in all, 23 species totaling 494 individuals were observed.

MINNEAPOLIS. The second census made by Minnesota Bird Club members was conducted along the Minnesota River bottoms west of Ft. Snelling by a group that included Mr. Ross Hanson, Mr. Oscar Owre, Jr., and Mr. William Cummings. Their check list showed interesting variations from the one made 100 miles farther south at Stewartville on the same day. The sky was clear and the temperature around 10°F. The species observed were the following: 200 mallards, 1 canvas-back, 3 lesser scaup, 1 sparrow hawk, 25 pheasants, 1 coot, 2 downy woodpeckers, 1 blue jay, 2 crows, 2 black-capped chickadees, 2 cardinals, 5 slate-colored juncoes, 1 tree sparrow. A total of 13 species and 246 individuals were observed.

FRIDLEY. The third census to be reported came from the Minneapolis Bird Club. The census was taken in the region of Fridley, Minnesota, along the Mississippi river on December 30, with the following members participating: Mr. Donald Wyatt, Miss Eleanor Wyatt, Mr. Luther Gilbert, Mr. Brad Gilbert, Mr. Howard Wilson, Mr. Roger Iverson, Miss Helen Towle, Miss Dorothy Loftus, Mr. and Mrs. Smyth, Miss Alice Wilson, and Mr. Milton Thompson. The weather was clear; the temperature stood at 10°F.; and a strong wind blew from the north.

The following birds were seen along the river and in the woods back from the river: 2 lesser scaup, 70 American goldeneyes, 1 ruffed grouse, 16 ring-necked pheasants, 1 pileated woodpecker, 5 hairy woodpeckers, 1 downy woodpecker, 3 blue jays, 10 crows, 2 white-breasted nuthatches, 7 starlings, 1 redpoll, 30 goldfinches, 11 slate-colored juncoes, and 1 tree sparrow. A total of 15 species and 161 individuals were seen.

SPRING VALLEY. Miss Fern Zimmerman, of the Duluth Bird Club, reported the results of an afternoon field trip taken on December 24, near Spring Valley in Fillmore county. The day was clear and windy and the temperature just below freezing. She observed 2 pileated woodpeckers, 1 hairy woodpecker, 1 downy woodpecker, 2 blue jays, 2 crows, 6 nuthatches, many black-capped chickadees, 1 cardinal, and 1 tree sparrow. Ten species, represented by more than 17 individuals were observed.

ST. CLOUD. The T. S. Roberts Ornithological Club of St. Cloud, be-

cause of conflicting dates, was unable to make its usual all day field trip for the purpose of taking a census of winter birds. However, interesting observations were made on two shorter trips, and the data are presented here.

The first trip, taken on December 14, on a warm clear day with the temperature at 50°F., covered the St. Cloud Teachers College Islands in the Mississippi river. The list obtained consisted of the following species: ring-billed gull, hairy woodpecker, downy woodpecker, black-capped chickadee, white-breasted nuthatch, brown creeper, golden-crowned kinglet, redpoll, slate-colored junco, and tree sparrow.

The second trip was taken on December 20, at a tamarack swamp about 10 miles east of St. Cloud on a cloudy day with the temperature at 0°F. and 6 inches of snow on the ground. The following birds were observed: hairy woodpecker, downy woodpecker, arctic three-toed woodpecker, blue jay, crow, black-capped chickadee, slate-colored junco, and snow bunting.

DULUTH AND NORTH SHORE. Three separate reports of censuses for the Duluth area were submitted by members of the Duluth Bird Club.

On the morning of December 23, with the temperature at 30°F., Mrs. Walter C. Olin studied an area along the shore of Lake Superior near the mouth of the Lester River, and later, Lester Park back of the lake. She observed the following birds: 40 American golden-eyes, 18 herring gulls, 2 hairy woodpeckers, 3 downy woodpeckers, 2 Canada jays, 1 blue jay, 2 black-capped chickadees, 1 red-breasted nuthatch, and 8 evening grosbeaks. All in all, 9 species and 80 individuals were seen.

The second Duluth census was made by Dr. Olga Lakela on December 23, 24, and 25, along the north shore as far as Two Harbors and at Duluth. Her list, which totaled 200 individuals of 20 species, was as follows: 70 American golden-eyes, 2 white-winged scoters, 1 ruffed grouse, many herring gulls, 1 snowy owl, 1 hairy woodpecker, 3 downy woodpeckers, 1 arctic three-toed woodpecker, 1 Canada jay, 1 blue jay, 2 white-breasted nuthatches, 2 red-breasted nuthatches, 1 robin, 18 Bohemian waxwings, 12 evening grosbeaks, 2 pine grosbeaks, 70 redpolls, 3 pine siskins, and 20 snow buntings.

The third Duluth report came from Miss Hulda Adams, who made a brief survey of the birds of Croydon Park, Duluth on December 25. She observed 1 downy woodpecker, 3 blue jays, 3 black-capped chickadees, and 8 pine grosbeaks.

LONGVILLE. A report, dated December 15 to January 15, was submitted by Mr. Herbert Fisher of Longville, Minnesota. This, of course, does not come within the time limits of the census period but is included here because of its general interest. The species commonly observed were the following: pileated woodpecker, hairy woodpecker, downy woodpecker, Canada jay, blue jay, and the snow bunting. Less common species noted were 1 bald eagle, 3 red-breasted nuthatches, 8 evening grosbeaks, 5 flocks of pine grosbeaks (5-12 in each flock), 10 redpolls, 8 white-winged crossbills, 6 slate-colored juncoes, and 3 flocks of tree sparrows (10-20 in each flock). *Minneapolis, Minnesota.*

Mr. J. D. Anthony of Grand Rapids, Minnesota, wishes to obtain one copy each of the following publications: Life Histories of North American Birds by A. C. Bent; Bull. No. 107, Diving Birds; Bull. No. 126, Wildfowl; Bull. No. 135, Marsh Birds. He has for exchange Vol. 2, Birds of Massachusetts and other New England States or cash.

1939 Minnesota Nesting Records

By **Hugh R. Engstrom**

THIRTY-THREE individuals or groups affiliated with the Minnesota Ornithologists' Union submitted nesting data on a total of 96 species of birds. This represents 211 observations in all. The localities from which data were reported were fairly well distributed throughout the state. The 1939 nesting record falls far below that of 1938, both in numbers of species and observations. This, in part, is accounted for by the fact that articles by E. D. Swedenborg and E. A. Palcich, which contained much nesting data, appeared in *The Flicker* for December 1939, and have not been repeated here.

Some of the 1939 records, of more than usual interest, require special attention. Holboell's grebe, for example, was found nesting in 3 widely separated areas—Beltrami County, Detroit Lakes, and Stillwater. The American egret, after successfully nesting near Fairmont in 1938, returned in 1939 and nested in the vicinity of Winona, where W. J. Breckenridge studied 3 nests containing large young. The red-breasted merganser, unlike its relative the American merganser, nests infrequently in Minnesota. Dr. Olga Lakela, Dr. E. Graybeal, and Mr. Casimir Hero, however, observed 28 young in Lake County in July. Another uncommon breeding species in Minnesota, the duck hawk, was found by James and Dana Struthers at Gwin's Bluff near Winona, and near Stillwater on the St. Croix by W. J. Breckenridge.

Again this year Minnesota Point, Duluth proved to be a mecca for nesting shore birds. Outstanding among them were the piping plover, upland plover, and Wilson's phalarope. The first authentic nest of Wilson's snipe since 1927 was found by Lawritz Krefting in Martin County on May 15.

It is hoped that these records, incomplete as they are, will create enough interest to cause members of the M. O. U. to go out into the fields and woods and along the water courses and make nesting observations, keep records of them, and finally submit them at the proper time.

COMMON LOON. At White Bear Lake on June 1, Dr. and Mrs. Alden Risser, Dr. Charles Evans, and Miss Allie Ann Christman found a nest containing 2 eggs. On June 28, at Detroit Lakes, Kenneth Carlander found 2 young just out of the nest. While on a trip into Lake Country, Dr. O. Lakela, Dr. Graybeal, and Casimir Hero saw a young loon at Newfound Lake on July 2.

HOLBOELL'S GREBE. In Beltrami County on June 21, W. J. Breckenridge observed several young for the first record of the season. On June 26, at Detroit Lakes, K. Carlander discovered 3 young just out of the nest. George Kutz saw 6 young leave the nest at McKusick's Lake near Stillwater on July 16.

EARED GREBE. The only record for this grebe comes from W. J. Breckenridge, who saw young at Heron Lake on June 28.

PIED-BILLED GREBE. There was also but one record for this grebe. On June 28, K. Carlander saw a nest with 4 eggs at Detroit Lakes.

DOUBLE - CRESTED CORMORANT. W. J. Breckenridge submitted the sole report of this species. He saw several young out of the nest at Winona Bottoms near Winona on July 17.

GREAT BLUE HERON. K. Carlander saw a nest and eggs of a blue heron near Faribault on May 15. On July 17, at Winona Bottoms, W. J. Breckenridge observed nests with large young.

AMERICAN EGRET. On the same

trip to the Winona Bottoms July 17, W. J. Breckenridge located 3 nests with large young of this species.

BLACK - CROWNED NIGHT HERON. A nest of this heron was seen by W. J. Breckenridge at Winona Bottoms on July 17. On May 22, Dr. T. S. Roberts' bird class studied nests and young at the Lake Owasso herony north of St. Paul.

AMERICAN BITTERN. Arnold Erickson submitted the only record for this bird. On May 21, near Mendota, he found a nest with 4 eggs.

LEAST BITTERN. The first nest of the least bittern was found by Roger Tollefson on May 28, at Castle Rock. Later a dog discovered this nest and broke 2 eggs. The 3 remaining eggs, which had fallen into the water, were rescued and incubated. All 3 hatched. Two nests were studied at White Bear Lake on June 3, by Dr. and Mrs. A. Risser. One nest contained 6 eggs and the other, 5 eggs.

MALLARD. A single nest with 4 young just out of the eggs was noted on June 27, by K. Carlander at Detroit Lakes. At Fort Snelling on July 22, Wm. Cummings saw half grown young.

BLUE-WINGED TEAL. A teal's nest, which held 12 eggs, was found by Winnifred Kingsley on May 18, at Moore Lake near Minneapolis. Roger Tollefson located a nest with 3 eggs at Castle Rock on May 27. At Long Meadow (Mpls.) on May 30, a nest with 4 eggs was found by Dr. Roberts' bird class. While at Detroit Lakes on June 27, K. Carlander located 2 broods of 3 young each. George Rysgaard spotted an adult and 5 large young on June 30 at Sturgeon Lake. At Lily Lake near Stillwater on July 2, George Kutz saw 8 downy young. Finally, K. Carlander noted 4 young with parents on July 13, on the Rainy River and the following day 12 young with parents on Lake of the Woods.

WOOD DUCK. Dr. Roberts' bird class obtained the earliest nesting record for the wood duck, when on June 5, at Long Meadow a nest with 6 eggs was found in an elm tree about 25 feet from the ground. At Frontenac on June 9, W. J. Breckenridge and Arnold Erickson inspected a nest in a hollow oak about 3 feet off the ground, from which the young had already departed.

RUDDY DUCK. The only record of this duck comes from W. J. Breckenridge, who saw 4 downy young at Sullivans Slough, Anoka county, on Sept. 7.

RED - BREASTED MERGANSER. The only records for the sawbill were obtained by Dr. Lakela, Dr. Graybeal, and C. Hero, who found 11 young on Moose Lake, Lake county and 2 groups of 7 and 10 young on Newfound Lake on July 2.

COOPER'S HAWK. Roger Tollefson submitted the only report for this "chicken hawk." On May 14, at Castle Rock, he found a nest with 2 young about 3-4 days old.

RED-TAILED HAWK. The Struthers, James and Dana, who specialize in hawks, found the first redtail's nest on April 10, near Minneapolis. The contents were not ascertained at the time; on April 14, the tree was destroyed by wind. On May 31, also near Minneapolis, Dana located a second nest which held 2 eggs.

MARSH HAWK. The Struther brothers, with 2 records, again monopolize the reports for this hawk. Their first nest was found on May 17, near Minneapolis; it held 5 eggs. Their second nest was discovered at Wyoming on June 20; it contained 2 young.

DUCK HAWK. A nest with young was noted on May 6, by James and Dana Struthers at Gwin's Bluff, near Winona. Four miles north of Stillwater on June 15, W. J. Breckenridge found a nest with 2 eggs.

SPARROW HAWK. Three lively young and one egg were found in a nest at Minneapolis on May 31, by Dana Struthers. Wind destroyed both nest and tree on June 6.

RUFFED GROUSE. In the Superior National Forest near Isabella, Dr. Lakela, Dr. Graybeal, and C. Hero observed 7

half-grown young on July 2. The second report was submitted by G. Rysgaard, who observed 7 large young and a hen at Sturgeon Lake on July 17.

HUNGARIAN PARTRIDGE. Nests and eggs of this species were found in southwestern Minnesota in May by Lauritz Krefting and G. Swanson.

BOB-WHITE. A deserted nest with 21 eggs, possibly the result of two hens laying in the same nest, was found by Mr. Wm. Kilgore on May 16, at Minneapolis.

RING-NECKED PHEASANT. Several hundred pheasant nests were found in southwestern Minnesota in May and June by Lauritz Krefting and G. Swanson.

KING RAIL. The nest of a king rail, which held 7 eggs on May 30, was found by Dr. and Mrs. Risser at White Bear Lake. By June 3, 2 more eggs had been added.

VIRGINIA RAIL. The only report for this rail comes from Arnold Erickson, who found a nest with 7 eggs on May 21, near Mendota.

SORA RAIL. On June 6, C. Hero found 2 nests on Minnesota Point, Duluth; the first held 8 eggs and the second, 3 eggs.

COOT. At Castle Rock on May 21, Roger Tollefson located 3 nests which held 5, 5, and 7 eggs respectively.

PIPING PLOVER. A total of 12 nests were reported for this species. As in previous years, Minnesota Point, Duluth, was the chief observation grounds. All of the following records pertain to that area. The members of the D.S.T.C. ornithology class, on May 18, found the first 3 nests, which contained 4, 3, and 2 eggs each. On May 27, members of the Minnesota Ornithologists' Union, attending the annual meeting at Duluth, found 4 nests with 1, 2, 4, and 4 eggs respectively. On June 10, Dr. Lakela and C. Hero noted 2 nests with 4 eggs each, and the following day C. Hero noted still another 4-egg nest. The last nest was found by C. Hero on July 6; it too held 4 eggs.

KILLDEER. The season's first killdeer nest, May 6, was noted by C. Hero on Minnesota Point; it held 4 eggs. The next day Arnold Erickson found 4 eggs near Mendota. On May 9, also at Mendota, A. Erickson found 4 eggs in the center of a disc of dried cow dung—a most unusual nest. The next 3 reports pertain to Minnesota Point. The D.S.T.C. ornithology class found a nest which held 4 eggs on May 18. On June 18, C. Hero found 1 young. The last record for the year comes again from C. Hero, who found a nest with 4 eggs on July 6.

WOODCOCK. An adult and 1 young were seen on May 14, by Guy Robbins at Gwin's Bluff near Winona.

WILSON'S SNIPE. There are few authentic records of snipe nesting in Minnesota. Lauritz Krefting found, on May 15, in Rolling Green township, Martin county, a nest of 4 eggs well concealed in tall blue stem grass and golden rods and situated 25 feet from water. By June 12, the eggs had hatched.

UPLAND PLOVER. At Osakis on June 30, K. Carlander observed 2 young leaving the nest.

SPOTTED SANDPIPER. C. Hero, who specializes in shore birds, and who has turned in an impressive nesting record, is again first with an observed 5 nests representing a total of 19 eggs. All observations were made on Minnesota Point. First nest June 10, 3 eggs; second and third nests June 18, each with 4 eggs; fourth nest June 24, 4 eggs; and fifth nest July 6, 4 eggs. Dr. Lakela found a nest on June 20, which contained 2 eggs and another egg lay on the ground near-by. The nest apparently had been abandoned. At Sturgeon Lake on August 1, G. Rysgaard watched some downy chicks.

WILSON'S PHALAROPE. One young of this species was observed at Osakis, by K. Carlander on June 30.

HERRING GULL. D. Struthers saw 2 gull's eggs in a nest at Lutsen on July 7.

FRANKLIN'S GULL. At Heron Lake on June 28, W. J. Breckenridge saw several nests with eggs and young.

FORSTER'S TERN. Adult terns carrying food were observed by W. J. Breckenridge in McLeod county on June 21.

COMMON TERN. Dr. Lakela found a nest on Minnesota Point on June 17; it held 3 eggs.

BLACK TERN. Dr. and Mrs. Risser found a 3-egg nest of this species at White Bear Lake on June 1. On June 28, C. Hero and H. Larson, while wading thru a marsh 18 miles north of Duluth on the Miller Trunk, investigated 7 nests which held 2 or 3 eggs each. G. Rysgaard saw an adult carrying food at Sturgeon Lake on July 6. Wm. Cummings observed on July 2, in Meeker county, 4 young and 3 eggs in 7 nests.

MOURNING DOVE. G Kutz found a nest at Stillwater, completed but without eggs on April 29. A dove was flushed from its nest in a willow tree by A. Erickson at Minneapolis on May 10. The nest contents were not ascertained.

BLACK-BILLED CUCKOO. Dr. Roberts' bird class found a nest with 1 egg in a plum tree at Long Meadow on May 30. Another nest of 3 eggs was located on June 30, at Sturgeon Lake by G. Rysgaard.

SCREECH OWL. D. Struthers examined a nest near Minneapolis on April 26, which held 2 eggs and 2 recently hatched young. At Como Park, in St. Paul, Wm. Cummings watched an adult feed young on June 28.

GREAT HORNED OWL. The earliest nest of this species was found at Minneapolis by D. Struthers on March 4. It held 3 eggs. In the Stillwater area G. Kutz observed, on April 9, a nest with 2 eggs. J. and D. Struthers caught and banded a young horned owl on May 24 at Minneapolis. Again on May 29, D. Struthers saw 2 young awing at Stillwater.

BURROWING OWL. On April 22, W. J. Breckenridge found 2 adults sitting by a hole in a pasture 2 miles east of Milan. At his approach they entered the hole, and he was able to collect several fresh pellets.

LONG-EARED OWL. A nest with 5 eggs was discovered by D. Struthers on April 23 at Minneapolis.

RUBY-THROATED HUMMINGBIRD. G. Rysgaard was unusually lucky to find an adult incubating 2 eggs at Sturgeon Lake on June 30.

FLICKER. In his search G. Kutz was rewarded by seeing 6 nearly feathered young in a nest at Stillwater on June 6.

YELLOW-BELLIED SAPSUCKER. Several young sapsuckers were found in their nest by W. J. Breckenridge at Granite Falls on June 22. At Detroit Lakes on June 27, K. Carlander found a nest with young.

HAIRY WOODPECKER. O. A. Stevens, at Moorhead on June 7, found noisy young hairy woodpeckers in a nest in an ash bole 7 feet from the ground.

EASTERN KINGBIRD. C. Hero of Duluth submitted the first record of nesting kingbirds for that area. On June 18, he saw 2 nests each of which contained 3 eggs, and on June 24, 1 nest with 4 eggs. At Sturgeon Lake on June 30, G. Rysgaard observed a female building a nest. A few days later, July 4, he saw young leaving a nest. A novel nesting site was found by K. Carlander on July 15, on the Rainy River, where a nest, that contained eggs, had been built on top of a post that projected 3 feet above the water. The last record of nesting was submitted by G. Kutz, who observed 3 young leaving the nest at Stillwater on July 30.

ARKANSAS KINGBIRD. On May 31, 2 miles north of New Brighton, W. J. Breckenridge found a nest. K. Carlander located a nest with young at Detroit Lakes on June 27.

PHOEBE. An early record of a nest and 4 eggs was obtained by D. Struthers at Afton on May 7. A nest with 5 eggs was found by K. Carlander at Lake of the Woods on July 16. At Sturgeon Lake, G. Rysgaard found, on June 24, a nest with 1 egg; and on June 30, he observed adults carrying food to another nest.

LEAST FLYCATCHER. Two records were submitted for this species. A half

completed nest was noted at Sturgeon Lake on June 30 by G. Rysgaard, and a nest with young was seen at Lake of the Woods on July 16, by K. Carlander.

PRAIRIE HORNED LARK. A nest with 3 eggs was found by Mrs. W. C. Olin on April 29, on Minnesota Point. This nest and another that contained 4 eggs furnished several interesting hours of study for C. Hero and H. Engstrom, who photographed both nests. When the eggs hatched, a blind was set up so that the activities of the adults and young might also be recorded pictorially. Many interesting observations were made.

BANK SWALLOW. At White Bear, Ramsey county, K. Carlander found eggs of the bank swallow on May 12.

BARN SWALLOW. A report of an early nesting was turned in by A. Erickson, who witnessed the building of a nest at Rock Creek, Pine county, on May 14. On July 2, Erickson found in the same vicinity a nest with 2 eggs. A nest with young was found under a bridge at Waskish, Red Lake on July 26, and another on August 26 at Oak Island, Lake of the Woods by K. Carlander.

CLIFF SWALLOW. On the St. Croix river, between Marine and Taylors Falls, Horace Paul found 12 nests on July 16. He reported that there was evidence to indicate nestings of previous years.

PURPLE MARTIN. An ocupied martin house was seen by K. Carlander at Lake of the Woods on July 16.

BLUE JAY. Near Stillwater on June 6, G. Kutz discovered 1 young leaving its nest.

CROW. Dana Struthers found 3 crows' nests in Minneapolis on April 29. Two of the nests had 4 eggs each, and the third contained 4 recently hatched young.

HOUSE WREN. Mr. LaChapelle found, at Duluth on June 24, a nest with 6 eggs. Data for 3 nests were turned in by K. Carlander. All of the nests held young birds and were located and dated as follows: June 27, Detroit Lakes; July 16, Lake of the Woods; and July 25. Waskish, Red Lake. G. Rysgaard found a nest with an undetermined number of young at Sturgeon Lake on June 30. He also reported an unique nesting place for one wren—the brain cavity of a horse's skull, in which there were 4 young. This nest was found in company with J. Kollitz near Hinckley on July 2.

LONG-BILLED MARSH WREN. An almost completed nest was discovered at Rush Lake near New Brighton by Dr. Roberts' bird class on May 22.

CATBIRD. While canvasing Hunter's Hill (Duluth), the D.S.T.C. ornithology class found a nest with 3 eggs on May 31. Wm. Cummings located 2 nests at Fort Snelling on June 6. One nest held 4 eggs and the other, 3. At St. Paul on June 10, he found a nest with 1 egg.

BROWN THRASHER. On June 1, at Stillwater, G. Kutz found a female feeding her young at the nest. On June 8, Wm. Cummings found 4 young at St. Paul.

ROBIN. Data for this species were plentiful. Space will permit the listing of only a few reports. Wm. Cummings found on May 5, in Goodhue county, 2 nests with 2 eggs each, and a third nest under construction. G. Kutz, G. Rysgaard, and A. Erickson reported nests and eggs for May. On May 31 the D.S.T.C. ornithology class found a nest with 3 feathered young at Hunter's Hill.

WOOD THRUSH. Dr. Roberts' bird class found a new nest without eggs at Minneapolis on May 29.

VEERY. C. Hero found 2 nests near Duluth on June 18 and 24. The first nest held 2 eggs and a cowbird's egg; the second held 4 eggs.

BLUE-GRAY GNATCATCHER. A pair of gnatcatchers was seen in Glenwood Park (Mpls.) on June 24, building a nest. Later, according to Mrs. Ure, this nest contained eggs. At Frontenac, W. J. Breckenridge and Arnold Erickson watched a pair building on June 9. Both male and female worked on the nest.

CEDAR WAXWING. G. Rysgaard observed adults feeding young in the

nest at Sturgeon Lake on July 15. Two days later the young were out of the nest.

MIGRANT SHRIKE. Dr. and Mrs. Risser found a nest at Stewartville on May 4, which contained 5 eggs. In Goodhue county on May 5, Wm. Cummings noted a nest in the center of a thorn apple tree. Five young awing were sighted by D. Struthers on June 9, in Minneapolis. Finally on June 27, W. J. Breckenridge saw adults feeding young out of the nest at Heron Lake.

STARLING. Starlings with young were seen in a hollow tree on May 12, by K. Carlander at White Bear. Wm. Cummings found 2 young out of the nest in St. Paul on June 14. Large young were still being fed on July 2 at Rock Creek, according to A. Erickson.

RED-EYED VIREO. Young were being fed out of the nest on July 6, at Sturgeon Lake, according to G. Rysgaard. At Itasca Park on July 30, K. Carlander saw young just out of the nest.

WARBLING VIREO. Dr. Roberts' bird class saw a female feeding her young on May 30 at Long Meadow.

BLUE-WINGED WARBLER. On May 31, G. Kutz found near Stillwater a nest completed but without eggs.

YELLOW WARBLER. A two story yellow warbler nest was found at Long Meadow on June 5, by Dr. Roberts' bird class. The lower nest contained both warbler and cowbird eggs; the upper nest was empty. On June 7, Wm. Cummings found a nest under construction in St. Paul. He visited it each day while the eggs were being laid and later when 4 young were hatched. D. Struthers found 4 young near Afton on June 18. At Detroit Lakes on June 27, K. Carlander found a nest with 1 young.

CHESTNUT-SIDED WARBLER. A single record was obtained by Miss Alma H. Chesley, who found a nest with 4 eggs on June 20, at Beaver Bay on the North Shore.

PINE WARBLER. Young just out of the nest were seen by K. Carlander at Lake of the Woods on July 24.

REDSTART. At Fort Snelling on June 6, Wm. Cummings saw 2 nests under construction. These nests contained young on June 17. Cummings, also on June 6, saw a nest being built in St. Paul. At Frontenac on June 9, W. J. Breckenridge and A. Erickson found a nest with 3 eggs.

WESTERN MEADOWLARK. On June 2, D. Struthers found in Minneapolis a nest with 3 young and 1 egg.

YELLOW-HEADED BLACKBIRD. A single report for this species was submitted by Wm. Cummings, who saw young out of the nest in Meeker county on July 2.

RED-WINGED BLACKBIRD. The earliest record for this species was submitted by A. Erickson, who found a nest of 4 eggs at Mendota on May 21. The most extensive nesting data of the year was submitted by C. Hero, who made a survey of the Oatka Beach Addition on Minnesota Point, where on June 6, he found 43 nests with eggs and young. On June 10, at the same place, he located 57 nests with eggs and young and 10 nests under construction. On July 13, at a marsh 18 miles north of Duluth, Hero found 4 feathered young. Wm. Cummings saw 3 nests with 4 young each at Ft. Snelling on June 6, and on June 13, in St. Paul, he saw a nest of 4 young. At Sturgeon Lake G. Rysgaard observed young awing on July 6.

ORCHARD ORIOLE. W. J. Breckenridge observed young being fed in the nest at Granite Falls on June 22.

BALTIMORE ORIOLE. K. Carlander found a nest with young on June 27, at Detroit Lakes. G. Rysgaard observed young being fed out of the nest at Sturgeon Lake on June 28, as did Wm. Cummings in St. Paul on July 1.

BREWER'S BLACKBIRD. A ground nest, which contained 4 eggs, was found by A. Erickson at Mendota on May 9. At the same locality, on May 21, he found a nest with 5 eggs. W. J. Breckenridge discovered a nest with 2 young and 1 egg on June 21, in Cottonwood County.

COWBIRD. The nesting data for the cowbird are given under the species that it was reported parasitizing.

CARDINAL. One cardinal egg and 5 cowbird eggs were found in a nest at Frontenac by Dr. and Mrs. Risser on May 22. At Afton, on June 18, D. Struthers saw a nest with 1 egg. W. J. Breckenridge noted young being fed on June 30, at St. Paul.

ROSE-BREASTED GROSBEAK. A female carrying nesting material was noted by A. Erickson on May 21, at Mendota. Wm. Cummings found a newly constructed nest at Ft. Snelling on June 22.

INDIGO BUNTING. On June 17, at Afton D. Struthers found a nest that held 3 bunting eggs and 1 cowbird egg.

DICKCISSEL. Near Luverne on June 26, W. J. Breckenridge saw a nest that contained 4 eggs.

GOLDFINCH. A single nest of our "state" bird was found by Wm. Cummings at Ft. Snelling on July 22.

SAVANNAH SPARROW. Two nests of 4 eggs each were reported for this little passerine. The first was observed at Minneapolis on June 15 by D. Struthers and the second, at Sturgeon Lake on August 1, by G. Rysgaard.

VESPER SPARROW. The only nest reported for this species was found by G. N. Rysgaard at St. John's Landing, Pine County, on July 12.

SLATE-COLORED JUNCO. A nest with young was found in Itasca Park on July 30, by K. Carlander.

CHIPPING SPARROW. K. Carlander discovered a little "chippy" building a nest at White Bear on May 12. On May 18, at Stillwater G. Kutz found a nest with 1 egg. C. Hero observed a "chippy" feeding a gangling young cowbird in a nest at Duluth on July 10.

SONG SPARROW. The earliest nesting report of this species was submitted by A. Erickson, who observed adults carrying nesting material on April 30, at Long Meadow. Dr. Roberts' bird class saw 2 nests at Rush Lake at New Brighton on May 22. The first held 3 eggs and 2 young and the second, 5 eggs. On June 6, at Duluth, C. Hero found a nest that held one cowbird egg; on the ground beneath the nest lay a broken song sparrow egg. A total of 8 eggs and 5 young were seen in 4 other nests by Hero at Duluth on June 15 and July 2.

Minneapolis, Minnesota.

The third annual meeting of the Minnesota Ornithologists' Union will be held on May 18 and 19, 1940, in the Minnesota Museum of Natural History on the campus of the University of Minnesota. Saturday morning May 18th will be devoted to registration, inspection of the museum, and viewing of an exhibit of photographs of birds. Persons interested in displaying photographs in this exhibit are urged to send them to Hugh R. Engstrom, Minnesota Museum of Natural History, before May 10th. The morning session will close with a business meeting. Saturday afternoon will be devoted to a program of papers and motion pictures. Persons desiring to present papers should contact Arnold B. Erickson, Division Economic Zoology, University of Minnesota, St. Paul, before May 10th. Sunday morning May 19th there will be a field trip to the Long Meadow Sloughs 12 miles south of the University. Headquarters for the trip will be at the club house of the Long Meadow Gun Club, where Dr. T. S. Roberts has arranged for luncheon. Every member of the M. O. U. should plan to attend the meeting.

A Swimming House Sparrow

By **Charles B. Reif**

IT WAS one of those delightful lazy summer days. The sun shone down from a cloudless sky on a world lost in its noonday siesta. Over the valley bottomland the air seemed to dance above the fields, and only an occasional dragon fly disturbed the tranquility of the scene. From the cottonwoods downstream came the oft repeated call of a yellow-billed cuckoo, predicting rain which had not fallen for weeks. I could hear a yellow warbler, always talking to itself, as it hurried about in the thicket of poplar saplings; but the wren which had trilled most of the morning evidently had gone off to take a nap. And there I was with my feet dangling in the muddy waters of the Minnesota river, which, too, seemed to be flowing more listlessly in the noonday heat.

When the river is low a ledge is exposed on the piling of the bridge that crosses over to Savage, Minnesota. It was on this ledge that I sat while I sieved the mud dredged from the bottom of the river. On this particular day I had taken up my work about 8 a.m. climbing onto the girders to lower the dredge into the river and returning to the ledge to sieve out the samples. All day there had not been the faintest trace of a breeze in the valley, and at the river's edge, beneath the protection of the cottonwoods, the air temperature had reached a 104° F. I was tempted to join the rest of the valley in its siesta.

But had I done so I would have missed a most interesting scene. From my place on the ledge I could witness many incidents. Once three fox squirrels came along the bank, heedless of my presence. I saw a carp jump completely out of the water and a great old catfish come furtively to the surface and gulp down mayflies. A whole family of pied-billed grebes paddled by and I am sure they did not see me.

A tiny breeze whispered through the aspens and then made the sunbeams dance on the water for a second. Across the river a green heron coasted by with slow easy wing beats. And I was sitting on the ledge sieving, just shaking the old sieve in the muddy water. Suddenly there was a splash and I thought another carp had broken water, but the splashing continued, and on looking up I saw an English sparrow fledgling some forty feet from the bank coming straight toward me.

There were several sparrow nests in the top girders of the bridge. This little fellow must have felt himself ready to go into the world, and so, had tried his wings. He would have been all right if he had not landed in the river. But even so he was doing well, for he seemed to be quite proficient at swimming. It was interesting to see just how the fledgling did progress on the water, for he made really good time. His action was that of a loon taking off. By running with his feet and moving both wings together in a definite paddling motion he continued to approach me. The turn of affairs had quite evidently frightened him for his mouth was held wide open though no sound came forth. I remained still and watched his coming, but finally he saw me. Turning sharply, he made for the bank just upstream. There he landed, about ten feet from me and crawled out onto the mud, a very miserable little bird.

Soon he began to climb up the bank, only to be stopped by an irregularity of the incline that caused him to crawl under some roots. I had decided to be just a spectator in this incident, but after a few minutes I saw that the little fellow was shivering. It hardly seemed that anything could shiver with the air so warm, but he was shaking like an aspen leaf.

I went over and picked him up. He

made no attempt to elude me but was very submissive, for the swim and wetting had taken most of his energy. I took him up the bank and put him in the middle of an open space in a sweet clover patch where the sun shone brightly. It was not long before his feathers were dry and he warmed up sufficiently to begin chirping. He then set up quite a clamour. I supposed that he was doing his best to inform his parents of his location and the state of his hunger. By that time I had finished sieving a sample and found it necessary to climb up on the bridge again to make another dredging. As I passed the sparrow he kept up his chirping, showing no fear of me. When I returned he was gone, but just where I could not discern.

I crawled out on the ledge again and sieved the mud. Down in the cottonwoods the cuckoo still said that it was going to rain, but he was wrong. There was no precipitation. *Minneapolis, Minnesota.*

NOTES OF INTEREST

BIRDS OBSERVED ON A WINTER OUTING Circumstances made it more expedient for us to take our vacation in winter this year. On January 16, 1940, the neighbors discovered, to their astonishment, that we were leaving not for the sunny south as sensible people would, but rather for the north. If we were to have a vacation in winter, we would have a truly wintry one; and so we departed for Lutsen on the North Shore.

Passing White Bear Lake, we stopped along the shore, where 2 artesian wells keep the lake open, to observe 6 mallards and a black duck. A short time later we reached Pine City where we saw 2 birds fly across the road. Since they looked like evening grosbeaks, we stopped the car and prowled around the back yard into which they had flown; but alas, they were nowhere in sight. As we were about to climb into the car, we noticed 9 evening grosbeaks placidly feeding in the tree beside the car.

That evening we arrived at Two Harbors. The next morning we continued along the beautiful North Shore, and at Beaver Bay we stopped to look at a bird perched on the top of a balsam fir. Its identity is still a mystery, since we saw it only from a distance, and could not make out any definite markings. It was about the size of Townsend's solitaire; its flight was as undulating as that of a goldfinch; it uttered soft-whistled notes much like those of the pine grosbeak. But it was much more slender than a grosbeak, and perched very erectly, more like a shrike. We knew that it was not a northern shrike because of its undulating flight, and because it lacked the conspicuous markings of this species. It was not a female cardinal, to be sure, because of its call notes.

We arrived at noon at our cabin near Lutsen, where we stayed for the next 3 days. Our first morning there was bright, sunny, and snappy with an offshore wind that sent racing squalls out into the lake. Several flocks of American golden-eyes flew by, sometimes alighting near us. Herring gulls were always in sight, and to our delight we had a beautiful view of a raven being tossed about in the wind with the gulls. A few moments later we saw a robin, and later we were told of 2 more wintering at Grand Marais. Back from the lake we saw a cheery little company of black-capped chickadees and red-breasted nuthatches.

The second day, like the first, was windy, and we spent our time chiefly at the wood pile. We sawed, split, and piled a week's supply of wood for the next occupants. This was one of the activities that we had anticipated, for there is never much opportunity for such things at home. That evening we cut out birch bark cards from the bark of the logs that we had sawed and split.

At 11:00 A.M. the third day we started for home with a carton of frozen herring to give to our friends. As we drove along the highway toward Ely, we were charmed by the snow-covered evergreens that crowded close to the road. A low gray sky brought the tops of these pines to the very floor of the heavens. Suddenly in the road before us we saw a white-winged crossbill, and nearby in a group of balsam firs about 24 of these beautiful birds were feeding. It was interesting to look for the crossbills in the dense growth of the trees, to hear many call notes, to see only 2 or 3 birds, and then suddenly, with a great chorus of chirps, to see several dozen emerge from the branches, ascend to a great height, circle high in the sky, and then disappear in the distance.

Along Angleworm Trail, north of Ely, we saw an arctic three-toed woodpecker, and the next morning on our way south we saw, near Cloquet, 6 pine grosbeaks feeding in their characteristically leisurely way. With these friendly creatures as our last recollections of typically northern bird life, we drove homeward enjoying the exquisitely frosted trees all along the way. Our list of birds seen on the trip follows. All except mallard, black duck, starling and Lapland longspur were seen north of Pine City. Mallard, black duck, American golden-eye, ruffed grouse, herring gull, hairy woodpecker, downy woodpecker, arctic three-toed woodpecker, Canada jay, northern raven, black-capped chickadee, white-breasted nuthatch, red-breasted nuthatch, brown creeper, robin, northern shrike, starling, evening grosbeak, pine grosbeak, redpoll, white-winged crossbill, Lapland longspur, snow bunting. *Alden F. Risser and Marion Evans Risser, Stewartville, Minnesota.*

WINTERING WOOD DUCKS A number of ducks have wintered on Lake Gleason near Wayzata this past winter. In an effort to bring up the water level of Lake Minnetonka, water has been pumped from a well into Gleason Lake from which the water flows into Minnetonka. The water is warm, about 52°F., and has kept a large area of the lake open. Mr. Eben Atwood, on whose estate the well is located, has a flock of about 60 captive mallards in a penned area of the open water. These attracted over 200 wild mallards which Mr. Atwood has fed all winter. A few wood ducks and pintails were also noted with the mallards throughout the winter.

Since a wintering wood duck is a rarity in Minnesota, a number of us went out to see the ducks on March third. Besides the large flock of mallards, at least one female wood duck and a few pintails were seen. *Lester Carlander* and *Kenneth Carlander, Minneapolis, Minnesota.*

MORE DICKCISSELS That 1939 was a "dickcissel year" in Minnesota was evident to every bird student who travelled over much of the state. It is interesting that within one year it can spread over such a wide area. I first noted the species near Windom in the southwestern part of the state in the last of May. Later, I found it common around the Twin Cities, in the Brainerd region, around Detroit Lakes, and finally near Lake of the Woods on July 7. *Kenneth D. Carlander, St. Paul, Minn.*

WINTER RECORDS OF GOLDEN-CROWNED KINGLET AND EASTERN TREE SPARROW On December 14, 1939, we were walking on the St. Cloud Teachers College Islands, and at about 4:00 P.M. we stopped to observe muskrats that were sunning themselves on the ice. As we watched these rodents, we heard a peeping sound, unusual for this time of the year. Upon investigating, we found that it came from a flock of about 50 golden-crowned kinglets. We observed them for one half hour and at times were within 3 feet of them. The golden crown was distinctly discernable. Since there are very few winter records of this species for central and northern Minnesota, we feel that it is desirable to place this observation on record.

The tree sparrow has been noted on our winter bird trips for the past few years. On December 28, 1938, one was seen near St. Cloud, Minnesota. This year we observed a flock of 75 or more on the same day that we saw the flock of 50 golden-crowned kinglets. It appeared as though the tree sparrows were migrating southward. The latest record for the northern part of the state heretofore was November 30, which is given in T. S. Roberts' *The Birds of Minnesota. Charles Metzroth, Edward Reioux,* and *Ralph Sauer, St. Cloud, Minnesota.*

CARDINAL IN DULUTH An eastern cardinal, *Richmondena cardinalis,* has delighted Duluth bird lovers by its repeated appearances since November, 1939. In response to the latest report of Mrs. Lee Taylor several members of the Duluth Bird Club gathered on the morning of February 10, 1940 at the residence of Mrs. E. W. Foizie, where the bird has made its home during the past week. With punctuality the charming avian guest arrived at the well-filled feeding tray only a few moments before the appointed hour. Cautiously the eager observers trooped into Mrs. Foizie's living room to view the bird, feeding unsuspectingly on sunflower fruits outside the window. Against the wintry background of leafless shrubs and snow the gorgeous male seemed like a warm breath reminiscent of the south.

Although the cardinal is well established as a resident in southeastern Minnesota, it is so uncommon in the Duluth region that its occurrence commands a wide general interest among nature-minded people. Mr. George Stevens's report of this species in 1931-32 appears to be the only published record for this area. The cardinal is a welcome addition to Duluth's bird life, and it is hoped that it will establish itself here permanently to bring new interest and beauty to the woodlands well populated by its distinctive relatives, the pine and evening grosbeaks, during their annual visits. *Olga Lakela, State Teachers College, Duluth, Minnesota.*

PINE GROSBEAKS IN DULUTH The pine grosbeak, a winter visitant to Minnesota, was especially common in the Duluth area during January, 1940. The birds have appeared in the city in flocks of a few to a dozen or more in search of food, preferably the fruits of maple and ash. The male utters a clear whistle which may be heard at a considerable distance, especially when the bird is in flight. Recently I watched 3 individuals, 2 of which appeared to be immature males judging by the spots of rose on their crowns. Larger flocks have been sighted in the Woodland District, and Mrs. Walter C. Olin of Lester Park, reports that she observed pine grosbeaks several times lately, once a flock of 18. *Odin Brendengen, State Teachers College, Duluth, Minnesota.*

WESTERN BURROWING OWL IN OTTERTAIL COUNTY While enroute on a fishing trip to the Detroit Lakes Region on May 19, 1939, Edward Reioux and I observed and collected a western burrowing owl (*Speotyto cunicularia hypugaea*) about 5 miles south of Fergus Falls, Minnesota, on Highway 52 in a wooded region of Ottertail County. This appears to be the first record of the occurrence of this species in the county. The specimen is now on display in the Biology Museum of the St. Cloud State Teachers College. *Ralph Sauer, St. Cloud, Minnesota.*

SNOWY OWL IN THE ARROWHEAD Records of the snowy owl are of interest because of the fluctuations in the numbers of this species from year to year. At least 2 authentic records have been made for the Arrowhead region during the winter of 1939-40. Mr. Ernest Bittner, of Balsam Lake, Itasca County, collected a specimen on December 29, 1939. On January 29, 1940, Dr. Olga Lakela saw an owl of this species on Minnesota Point, Duluth. *Verner Curtis, State Teachers College, Duluth, Minnesota.*

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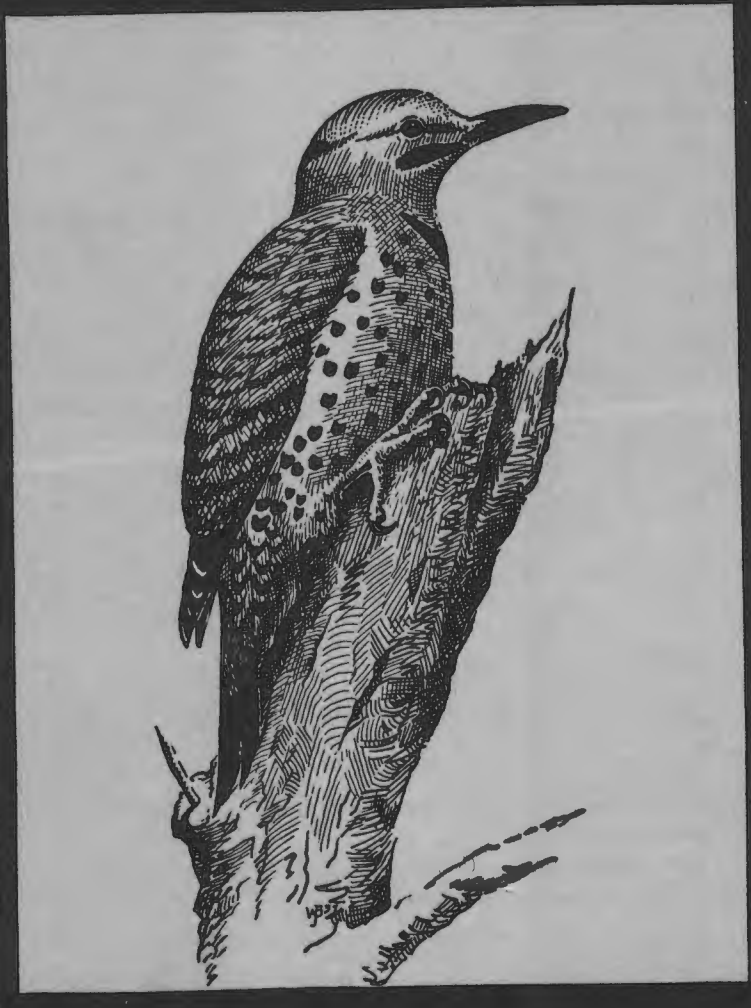

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Barred Owl Food Habits in Glenwood Park, Minneapolis, Minnesota

By **Lem A. Blakemore**

FOR many years the barred owl (*Strix varia varia*) was thought to be destructive to game and song birds. However, several recent studies upon the food habits of this owl have indicated that it is beneficial in its feeding habits. Mice and other rodents, which are destructive to the agricultural and forestry crops of man, are its chief food.

It was my good fortune to be permitted to study during the winter 1939-40, the feeding habits of a pair of barred owls, which inhabited the wildflower gardens of Glenwood Park in Minneapolis. Owls of this species have lived in the wildflower gardens of the park for the past fifteen years. These birds have been found nesting in a cavity in a large decadent red oak. Young birds raised here have always left in the fall, leaving the old birds in the area during the winter.

For the last five years the winters have been more severe than usual, and the barred owls have left the vicinity upon the arrival of a great horned owl (*Bubo virginianus*) into the locality. In the winter of 1939-40, however, the great horned owl did not appear, and the barred owls remained throughout the winter.

The owls had their favorite roost trees which, for the most part, were tamaracks between six and nine inches in diameter, and 25 to 35 feet high. The normal growth of the branches on a direct horizontal plane from the trunk seemed to be what made this species of tree most attractive to the owls; for whenever the birds were present, they were seen to perch next to the trunk.

It was under these special roost trees that most of the pellets were collected. Measurements of whole pellets were recorded. If only pieces of pellets were obtained, measurements were not taken, but in analysing these pellet fragments several were grouped together, giving a pellet of average size.

Pellets were first collected on December 13 and 18, 1939. At this time collecting was comparatively easy; however, on the subsequent trips, January 11 and 25, 1940, snow had fallen and had concealed most of the pellets. The pellets, upon being regurgitated by the owls, dropped to the ground from a height of 20-25 feet, where they sank into the soft snow, and being warm, they melted the snow and an icy coat was formed about them. It was difficult to remove these frozen pellets without breaking them.

In the laboratory the pellets were thoroughly dried, measured, and then by the

use of forceps, the skeletal material was separated, sorted, and classified. The contents of each were then placed in a numbered envelope. A file card was kept for each pellet on which were recorded the number of the pellet, the date collected, the length and the width, and the skeletal contents.

Classification of the material was accomplished in the Economic Zoology laboratory of the University of Minnesota in three ways: comparison of the pellet contents with known skeletal material kept on file in the laboratory; the use of skull keys; and the professional assistance of Drs. D. M. Hatfield, A. C. Hodson, and G. A. Swanson.

The pellets ranged in size from 37 to 70 millimeters in length and from 20 to 27 millimeters in width. The average length and width respectively were 54 by 24.5 millimeters. The pellets were definitely oval in shape.

The food species recovered from the owl pellets are listed below. The letter "A" following the name of the food species refers to the number of pellets in which the food species was found; "B" refers to the number of individuals of the food species recorded; and "C" refers to the percentage by volume.

Food Species	A	B	C
Short-tailed Shrew (*Blarina brevicauda*)	21	29	35.4
Meadow Mouse (*Microtus pennsylvanicus*)	15	24	29.3
Norway Rat (*Rattus norvegicus*)	7	7	13.9
Pocket Gopher (*Geomys bursarius*)	1	1	1.2
Flying Squirrel (*Glaucomys volans*)	2	2	2.4
House Mouse (*Mus musculus*)	1	1	0.2
Red Squirrel (*Tamiasciurus hudsonius*)	1	1	1.2
Passerine birds	2	2	2.0
English Sparrow (*Passer domesticus*)	6	6	7.4
Fowl	1	1	1.6
Skink (*Eumeces septentrionalis*)	2	2	1.2
Crayfish (*Cambarus vivilis*)	2	2	2.0
Beetles	3	3	2.0
Grasshopper	1	1	0.2

The average number of items per pellet was 2.04.

The number and percentage by volume of the food groups found to be present in the 36 pellets was as follows:

Group	No. Present	% of Total
Insectivora	28	35.4
Rodentia	36	44.0
Songbirds	8	9.8
Poultry	1	1.2
Amphibia & Reptiles	2	2.4
Arthropoda	6	7.2

Although the number of pellets is admittedly small, 36 in all, including those formed of broken parts, they present a fair cross-section of the food most easily obtained by the barred owl in this locality during the winter months.

The owls have been observed near the Glenwood Park songbird feeding station which is kept open throughout the winter; but here the English sparrow, because of its great predominance over songbirds, acted as a buffer species for the more wary and less numerous songbirds.

The abundance of shrews in the owls' diet may be explained by the fact that shrews are active above the snow even during the coldest weather.

Skink (*Eumeces septentrionalis*) remains were obtained from pellets collected in December and undoubtedly represent fall pellets. Crayfish (*Cambarus virilis*) appeared in pellets collected on January 11. The stream running through the garden and the small pond in the garden are open the year around, and it is possible that a few of these arthropods became active during the warm spell preceding this date.

Where remains of larger animals occurred in the pellets, the skulls were usually absent. Identification of these animals was made by studying the leg bones and parts of the axial skeleton. Mouse and shrew skulls were included in the pellets, and frequently parts of rat

skulls were present. The skulls of other rodents, such as the pocket gopher and the flying squirrel were never found complete in the pellet.

It can be definitely stated that the barred owl does not constitute a menace to game birds in the Glenwood Park area. This is especially applicable to the pheasant which is abundant. As many as 32 pheasants have been counted in the garden at one time. Once several pheasants were observed scratching and feeding beneath a tree in which one of the owls was perched, but the owl paid not the slightest heed to them and they gradually wandered away.

The writer wishes to thank Miss Lulu May Aler for her kind assistance in collecting pellets and for her many interesting accounts of the life habits of the pair of owls that inhabited the gardens. He also wishes to express his appreciation for the assistance that Drs. D. M. Hatfield, A. C. Hodson, and G. A. Swanson have given him in identifying food remains in the pellets.

This analysis of 36 pellets of a pair of barred owls has shown that the winter food is confined to available species, rather than to any preferred species. The short-tailed shrew was one of the most available forms, and it made up 35.4 per cent of all food items. Rodents as a group made up 44 per cent of the food and included meadow mice, Norway rats, red and flying squirrels, and pocket gophers. Although passerine birds were included in the diet, particularly English sparrows, no game bird remains were found, even though pheasants were common on the area. Unusual food items identified were the skink and crayfish. *St. Paul, Minnesota.*

The 26th annual meeting of the Wilson Ornithological Club will be held in the Minnesota Museum of Natural History at the University of Minnesota on November 22, 23, and 24, 1940. Members and friends of the Minnesota Ornithologists' Union are urged to attend. All sessions will be held in the Museum, where registration will begin on Friday at 9 a. m. On Friday evening a reception for members and guests of the Wilson Club will be held in the Museum from 7-10 o'clock. Motion pictures will be shown, and the study collection of bird skins will be open for inspection.

A bird art exhibit, held in connection with the meetings, will be hung in the University Art Gallery in Northrop Memorial Auditorium. A reception will be held in the Gallery on Friday from 4-6 p. m. The annual Wilson Club dinner will be held in the new Coffman Memorial Union on Saturday evening, November 23 at 6:30. Tickets $1.50. Out of town visitors will find suitable lodgings in the Center for Continuation Study, a building adjacent to the Museum, or in various downtown hotels where special rates are available to visitors.

Wildlife in the Canoe Country

By Gustav Swanson

THE natural attractions of northeastern Minnesota are never completely revealed to those who merely camp, or fish, or drive through the area. It remains for the canoeist who paddles his way into the wilderness area, inaccessible by any other means of travel, to see the region from the best possible vantage point. It is true that the roadless portion of the Superior National Forest has been penetrated a great deal in recent years by the hydroplane, and by boats and canoes powered with outboard motors, but it is my very firm opinion that those who use such means of travel in the area miss a great deal. In fact, my sympathies are with the objectives of the Wilderness Society, organized to resist the destruction of those last few wilderness areas left in the United States. They would "resist the invasion of such wilderness by the sights, sounds, and other influences of civilization," and keep the wilderness in as nearly its primeval condition as possible.

This year C. Edward Carlson accompanied me on a brief trip of six days, July 1-6, 1940, into an area which was recommended as unusually rich in wildlife, especially big game. The trip proved to be a very interesting one, and we were not disappointed in the number of birds and mammals seen. The route which we followed was down the Kawishiwi River from Lake One to Gabbro Lake and Bald Eagle Lake, and then up the Isabella River to Isabella Lake. It was a little-traveled route, apparently, for we saw no other canoe parties in the six days we were out. The only persons we encountered were at a small power dam at Gabbro Lake, maintained by the Minnesota Light and Power Company. Here a resident caretaker stays the year 'round. The comparative isolation of this route is in contrast with the several canoe routes along the border, because the lakes directly on the border itself are veritable canoe highways. For those who wish to see the wilderness with as little disturbance as possible, avoiding the border lakes is recommended.

Some of the preparations for a canoe trip such as we took might be of interest. The towns of Ely and Winton are well known as the center of the canoe country, and the complete canoe outfit can be obtained there without difficulty. One of the most important parts of the outfit is, of course, the map, and in the past few years a really accurate map of the area has been made available. It is drawn from the aerial survey of the Superior region, and for that reason every lake and stream is shown in its proper proportion and outline, which could not be said of the maps available before.

Since every item one takes on the canoe trip must be unloaded, carried in packsacks on one's back and loaded dozens of times during the trip it is quite essential that everything, including tent, sleeping bags, canoe, fishing tackle, and even food, be chosen with a special consideration of their lightness. Canoeing has become such a popular vacation pastime in this area that many conveniences, especially in the foods available, have been devised to make such trips more pleasant. A canoe trip in the twentieth century is a far cry from one taken by the fur traders during the eighteenth century in many of the same waters. While they often had nothing but salt pork, because of the difficulty of carrying a variety of bulkier foods, we now can carry many foods put up especially for canoeists. Dehydrated milk, eggs, potatoes, and many vegetables are available, all containing about the same food value as the fresh foods, but no water to add to the weight. Their canoes were heavy, awkward crafts compared with

those now used by vacationers, and certainly even the most imaginative voyageur in the employ of the American Fur Company could not dream of the comfort of resting in a sleeping bag on a pneumatic mattress. All of these appurtenances of civilization add a good deal to one's enjoyment of the trip without making any change whatsoever in the primeval character of the forest through which one travels. Perhaps there is a certain inconsistency in using an air mattress, and opposing the use of an outboard motor on such a wilderness trip, but to me the former is purely a personal matter, while the latter with its noise, speed, and smell is a violent disturbance in an area where I would like to see birds and mammals as undisturbed as possible. It is certain that some species of wildlife simply will not remain in a region constantly shattered by the din of motors. The moose is probably our best example. It has retreated farther and farther from areas with such disturbances.

The Kawishiwi River, on which we began, is a beautiful stream, narrow and with churning rapids and waterfalls in some places, and placid, wide and lake-like in others. Its name is from the Ojibway meaning "river full of beaver houses" so apparently it has been the home of these animals for long. The proper pronunciation of some of these Indian names is difficult to find. Suffice it to say that most of the residents in the general area pronounce the name of this river kash-o-wee.

One of our greatest hopes when we began the trip was to see a moose, and this was the only feature in which we were disappointed. We passed through areas which appeared to be ideal for moose, and on a number of occasions we found definite evidence that moose were present in the area. Along the Isabella River we were especially hopeful, because there we found many places where lily pads and other aquatic plants attractive to the moose were abundant. Several times, too, we found places along the bank where moose had apparently come down to the water's edge. More suggestive even than this, however, were the partially eaten water-lily leaves, and pond-weed leaves. In some places many of the lily-pads had been eaten completely, leaving only the bare stem, while other leaves had been eaten only in part. In still other spots some of the water plants had been pulled up by the roots in quantity. Much of this feeding upon aquatic plants we attributed to the presence of moose. On one occasion when we found fresh moose tracks within a few yards of the place where we pitched our tent on Isabella Lake, we were much encouraged in the hope that the next bend in the river would bring us face to face with this largest member of the deer family.

We planned our traveling on the river as carefully as possible to give us the best chance of finding moose. Early morning and late evening hours are reputed to be those when moose come to the lakes and streams to feed, and the occasions when I have seen moose previously in other parts of Minnesota bear out this idea. Hence we tried to plan our trips on the Isabella River so that most of our time on the river would be at those hours. All of our careful planning, however, was to no avail. We saw no moose at all—even though all of the "sign" we saw assured us that moose were present in the area.

These searches for the moose are especially interesting in view of the observations of Dr. C. E. Johnson in the same region in 1912 to 1915, and in 1920. In each of these years Dr. Johnson studied the birds and mammals, especially the latter, in the same areas we traveled over. He took a series of motion pictures of moose which were later presented by the sponsor of the expedition, Mr. James Ford Bell, to the Minnesota Museum of Natural History. Dr. Johnson kept a careful record of the animals he saw, and made special note of the fact that in 1915 he saw over 130 moose in 9 weeks of canoe travel in the area, while 5 years later, in 1920, when he returned to see what change had taken place, he found only 5 moose in 6 weeks. In 1915, then, he saw moose at the rate of about 15 per week,

while in 1920 it was about 1 per week. The great decline he attributed to the fact that during the interim a large amount of lumbering had been done in the area, and the noise and disturbance had driven the moose out. Our record was still worse, no moose in about one week, but of course this short time was not sufficient to give us any clear picture of the status of the animals in the area.

Deer were quite common, and rather easily approached as they fed out in the shallow water. They were not disturbed enough by man to make them distrustful, because on several occasions we approached closely enough to get satisfactory motion pictures of them from the canoe. We usually saw 3 or 4 each day that we were out. One of the most interesting observations that we made of deer was while we were eating an early breakfast at the upper end of the series of rapids by which the Isabella River enters Bald Eagle Lake. As we finished our meal we heard a sound, and just across the river from us we saw a doe walking gracefully down toward the bank, entirely oblivious of our presence. She paused to browse as she moved along, and later when we had a chance to examine more closely the plants that she had been feeding upon, we found that they included wild rose, hazel, and red osier dogwood. In each case she ate both leaves and the new twigs. She was so close that I was tempted to try photographing her, but the movements necessary in getting my camera and reaching a suitable vantage point finally frightened her, and I caught nothing on the film but the flash of her white tail as she bounded away.

Beavers were quite common, and their work was seen almost constantly. In the Kawishiwi River we saw about a dozen houses all told, but only occasionally did we see a beaver, usually toward evening while we were preparing our supper or camping for the night. On the Isabella River, where the banks were frequently soft and muddy, we found a good deal of evidence to indicate that the beavers more often used burrows in banks than lodges. The Kawishiwi, however, has rocky banks, and opportunities for digging burrows come much less often. Here the conventional beaver lodges seemed to be the rule. Frequently we found evidence to indicate that muskrats were present in small numbers also, and on one occasion we did see 2 or 3 muskrat houses in a marshy outpocketing of the Isabella River. According to our observations the Isabella River more nearly merits the Indian name given to Kawishiwi, because beavers were certainly more abundant in the Isabella.

The porcupine, a characteristic animal of the area, was less common than I expected. We did not actually see even one porcupine on the entire trip, although now and then we saw trees upon which they had been feeding, and once we heard the loud guttural call of the porcupine coming from some distance back in the woods.

Among the encounters with wildlife which might have proved embarrassing was one with a skunk on a portage trail which was so grown over with high grass that I did not see the animal until I was within five feet of it. I was laden at the time with a large packsack which contained all of our food, and also with some additional paraphernalia which filled both arms, consequently I could not beat as hasty a retreat as I wished. When I paused, however, the skunk, an enormous one, calmly and with devastating dignity walked into the forest leaving me swallowing my apprehensions very slowly and thankfully.

We did not take time to study the small mammal life of the area through which we passed, because the necessary trapping would have taken longer than we could have devoted to it. We did, however, see a few small mammals which may be worth mentioning. At the lower end of the Isabella River we camped twice, and each time we saw bats which, judging from their size, and their characteristic flight which is slower and more direct than that of the commoner big brown and little brown bats, could be recognized as red bats. The red bat is a forest-loving species of solitary habits, and seems to by only passably common in the state. On

a number of occasions we saw the common Lake Superior chipmunk, the smaller form which is confined to the northern part of Minnesota, and often, of course, the red squirrel was heard and seen, particularly at places where we camped. Both the chipmunk and red squirrel were attracted to our camping sites. They came so close in search of food on one occasion that we were able to photograph them from within four feet.

Because of our means of travel, the birds which we saw were chiefly those living on or near the water. Northeastern Minnesota is not a fertile waterfowl area, but we did see broods of several species of ducks. On the Kawishiwi River, with its rocky shores, the American merganser was the commonest species of waterfowl, and we saw it several times. The largest brood that we noted contained 24 young, which made a pretty sight as they escaped us under the expert guidance of their mother. One brood of black ducks, about three-fourths grown, was seen the next day, also on the Kawishiwi River. It was not until we began ascending the Isabella River that we saw others, and then the hooded merganser was commonest. On one day we saw 3 different broods, and another day 2 broods, but in no case did we see more then 5 young with the parent. The female hooded merganser puts on a most frenzied and pathetic demonstration of injury feigning in its efforts to lead the disturber away from its young. Certainly it outdoes any of the other waterfowl with which I am familiar. Each time we encountered a brood of hooded mergansers the female flopped about in the water a few rods ahead of the canoe, and this performance continued until we had followed her hundreds of yards up the river. The young in the meantime disappeared by diving or swimming into cover, or sometimes hurrying up on to shore. We did not try to catch any of them on this trip, but from past attempts I would say that young hooded mergansers are as difficult to catch as any of the ducks.

The only other ducks that we saw were adult American goldeneyes, and one brood of half grown mallards, a short distance west of Isabella Lake.

Ruffed grouse seemed to be definitely more common than in 1939. Although it was the first week of July, we heard the ruffed grouse drumming on 4 different occasions. Five times we encountered broods of partridge. In each instance the birds were two weeks or more old and could fly strongly. Once when a brood flushed, a single young bird miscalculated the direction and started to cross the river. It soon dropped into the water, however, and started paddling its way back to the shore from which it flew.

Our one bit of evidence that the Canada spruce grouse was present in the area, consisted of the finding of some spruce grouse feathers near our camp site on Isabella Lake. Since there were a number of feathers together, it appeared as though the bird had met an unhappy ending, but so long before that we could not even hazard a guess as to the cause.

Canada jays were abundant in a number of places. Often a group of them would follow us as we paddled along the river, and then we were able to separate the blackish young of the year from the slate gray adults. Their varied vocabulary rang through the woods on many occasions.

Often we were traveling close to shore and could see or hear some of the song birds. Mourning warblers were common, and occasionally we heard a black-throated green warbler. Along portages we sometimes saw the chestnut-sided warbler, especially if we were passing through a second-growth area of poplar and hazel. The greatest surprise among the warblers, however, was finding the Tennessee warbler a number of times at Isabella Lake. The Tennessee warbler has been seen and heard several times in northern Minnesota during the summer, but as yet no one has found its nest in the state. The other smaller birds which we saw were all species which we would expect to be present regularly in the region.

The experience which caused us the greatest concern occurred during the night

of July 4th, when our trip was drawing to a colse. That evening after supper we replaced all of our food and cooking utensils in their respective packsacks and retired rather early. We had traveled a considerable distance and felt just comfortably tired. How very soundly we slept we discovered the next morning when we arose at 4 to prepare breakfast, and found that breakfast and all our other meals had disappeared without the slightest trace. The food was all in one packsack, and it must have weighed at least 40 pounds in all. We quickly concluded that nothing except a bear could have made away with it. The food sack had lain on an improvised table 5 feet above the ground and must have fallen with a crash when it was taken down. Both of us, however, slept through the commotion unaware of what was going on within six feet of us—which was probably just as well, because our bear must have been rather determined to get a meal, and probably nothing that we could have done would have prevented him.

We searched for 10 or 15 minutes before we found a spot where we could pick up the trail. After that it was easy to follow, because every few feet or less we found a flower which had been trampled or a footstep on a rotting log. After following the trail for nearly 150 yards, in part up a rather steep hill, we found what was left of our food sack. The heavy canvas was rent in several places, and all of our food packages, which had been so neatly packed and labeled, were scattered over the ground. A search through the remains gave us a pretty accurate insight into the food preferences of the black bear. As a result of our study we concluded that while the black bear *may* be able to live upon such products of the forest as blueberries, bearberries, raspberries, and other native fruits, insects, acorns, roots and an occasional fish, what he really prefers is Swift's Premium Bacon, Kraft's Cheese, Crisco, German rye bread, Sun Maid Raisins, and California Prunes. It appears that the black bear would really like to live within walking distance of any good delicatessen, rather than in the wilds of northeastern Minnesota. His taste for bacon, cheese, and rye bread was so strong that he ate the wrappers as well as contents.

Fortunately, the bear did have the good taste to leave a few items untouched for us to subsist upon for the next two days. The meals were not as varied as they would otherwise have been, but in quantity we had little to complain about. What we missed most was coffee for breakfast. We could not be sure that the bear really enjoyed coffee grounds, but in the process of investigating the coffee can he made it a misshapen mass of tin, and scattered its contents over several square yards.

We had been hoping to see a bear (under happier circumstances) sometime during the trip, consequently we were somewhat disappointed not to have caught the slightest glimpse of our visitor. It is therefore a considerable satisfaction to report that the very day, the last of our trip, we did see two bears between Ely and Finland. One of them was accommodating enough to allow a rather close approach, while the other hurried away the moment we saw him.

Not the least of the attractions of such a trip is the seclusion it gives from the cares and artificialities of an everyday world. I believe we both felt much refreshed for not having seen a newspaper or heard a radio account of the progress of the European war, and we certainly did not feel any sense of loss at having missed the Fireworks on July 4th! *Division of Economic Zoology, University of Minnesota, St. Paul, Minnesota.*

Small Mammals of Northeastern Lake County, Minnesota

By William N. Rom

LAKE COUNTY lies within that part of northeastern Minnesota which is characterized by many lakes, streams, bogs, and swamps, all of the Hudsons Bay drainage. The terrain is extremely rough and hilly, submarginal in respect to agriculture. Northeastern Minnesota is within the Canadian Life Zone and is rich in its native fauna and flora. The chief trees of the region are: red pine (*Pinus resinosa*), white pine (*Pinus Strobus*), jack pine (*Pinus Banksiana*), white spruce (*Picea glauca*), black spruce (*Picea mariana*), balsam (*Abies balsamea*), cedar (*Thuja occidentalis*), birch (*Betula papyrifera*), aspen (*Populus tremuloides*), and alder (*Alnus crispa*).

In northeastern Minnesota is situated the Superior National Forest which is bounded to the north by the similar but much more primitive Ontario wilderness of Canada. The southern boundary of the forest is fringed by the rocky north shore of Lake Superior. Northeastern Lake County, where the trapping took place, lies within the vast Superior Game Refuge, a major part of the forest. This section of the county is without roads or permanent habitation. It is one of the last remaining wilderness areas in the United States because man has had little influence upon the biotic environment due to the region's inaccessibility. Unfortunately, exploitation of the superb wilderness attractions by resort owners and others is fast diminishing the natural beauty of this strategic primitive area.

Trapping was carried on between July 11 and August 19, 1939, near the Forest Service fire tower at Kekekabic Lake, while I was employed as assistant fire guard by the United States Forest Service. Ten traps of the snap-back type were worked on 3 very different habitats for various lengths of time (Table I). The plots covered an average area of 500 square feet each. Plot A was situated on high, dry ground 200 feet due east of the tower. The dominant overstory was of the poplar-birch-spruce type, and the understory consisted mainly of hazel brush (*Corylus rostrata*), and various dogwoods (*Cornus spp.*). Large-leaved aster (*Aster macrophyllus*), wild sarsaparilla (*Aralia nudicaulis*), blueberry (*Vaccinium sp.*), yellow clintonia (*Clintonia borealis*), and bunchberry (*Cornus canadensis*), were the chief plants of the ground cover. Rotting logs were strewn about the entire plot and a barren ledge covered about one-fourth of the tract. The ground beneath the few spruce was devoid of surface vegetation.

Plot B was located on the shore of a secluded beaver pond approximately a quarter of a mile due south of the tower. An overstory and understory were wanting on this plot; the ground cover consisted mainly of a tall dry grass. Spreading into the water and thinly scattered over the entire plot, were leather-leaf (*Chamædaphne calyculata*) and sweet gale (*Myrica gale*). The soil, especially within five feet of the shoreline, was continually moist, and a few logs were distributed over the plot. About 15 feet back from the shoreline and thus bordering the entire pond was a thin mixed stand of spruce, birch, and aspen, the spruce being most abundant. A ground cover of bunchberry, large-leaved aster, blueberry, pearly everlasting (*Anaphalis margaritacea*), and false lily-of-the-valley (*Maianthemum canadense*), occurred be-

neath the removed stand. Thus plot B was bordered on the south side by a stagnant beaver pond and on the north by a varied cover type.

Plot C lay in the hollow of a small and isolated sphagnum swamp near the base of the tower. The shallow depression was continually moist and contained a permanent spring hole. Spruce and birch composed the overstory and supplied continual shade to the plot. The ground cover was largely sphagnum moss (*Sphagnum sp.*) and Labrador tea (*Ledum groenlandicum*). Plots A and C were only about a hundred yards apart. Thus trapping was carried on in three sharply contrasting habitats.

TABLE I

Species of small mammals trapped on 3 plots.

Plots	*A*	*B*	*C*
Date	7/11-8/19	7/15-8/19	8/14-8/19
Trap Nights	300	270	50
Sorex		2	
Microsorex	3		
Peromyscus	5	7	
Clethrionomys	4	4	4
Microtus	1	3	1
Zapus		9	1
Napaeozapus	1		6
Totals	14	25	12

I have not attempted to give, in this paper, a complete list of the smaller mammals represented in northeastern Lake County, but rather, I have touched merely upon those species that I trapped. Much work is yet to be done on the mammals of that part of Minnesota; in fact, the entire State is sadly in need of a thorough survey of its mammals.

ANNOTATED LIST OF SPECIES

1. *Sorex palustris palustris* Richardson, American water shrew. Two were caught (same trap) on Plot B; one skin was saved. Specimens caught in this vicinity by others were by DeTurk (Cahn), who caught 2 at Agnes and McKenzie Lakes, 20 miles to the north in the Quetico Provincial Park, Canada. Merriam and Jackson report 2 caught at Tower, St. Louis County, 55 miles west of Kekekabic, and others elsewhere in Minnesota. Surber says that this species is nowhere common in Minnesota.
2. *Microsorex hoyi,* Pigmy shrew. Three were caught on Plot A during the first two days of trapping and none afterwards, although this plot was trapped intensively. The 3 probably represented the total population. Unfortunately, no skins or skulls were saved. The average measurements in millimeters were 112-39-11-2.5, (total length, tail, hind foot, ear), which is good indication that it was this species, rather than *Sorex cinereus.*

   Sigurd F. Olson (Cahn) caught 2 *Microsorex hoyi intervectus* at Ely, St. Louis County 40 miles west of Kekekabic. Cahn also records the same variety caught at French and Northern Light Lakes, Ontario (25 miles northeast of Kekekabic). *Microsorex h. hoyi* was caught at Ely by Vernon Bailey in 1932 (Howell), and *Microsorex hoyi ssp.* is recorded for several other localities in Minnesota according to the records of the Minnesota Museum of Natural History.
3. *Peromyscus maniculatus gracilis* (LeConte), Canadian white-footed mouse. Five were caught on plot A, 7 on plot B, and none in mossy plot C. Four skins were saved. C. E. Johnson reports this species abundant in a variety of situations in all parts of Northern Lake County. This is the mouse so commonly found about the cabins in this region. Numerous records of this species from elsewhere in the northern part of the State are recorded.
4. *Clethrionomys gapperi* (Vigors), Redbacked mouse. Four were caught on each of the 3 plots; 5 skins were saved. A specimen caught on August 8 contained five well-developed embryos. C. E. Johnson caught, on June 25, a female of the variety *C. g. loringi* Bailey which contained 8 embryos. He reported this variety as one of the two most abundant small mammals

in Northern Lake County.

Cahn has said of this species, "This is by far the most abundant small rodent in the region (Quetico) and apparently is common everywhere excepting only swampy areas." Four specimens caught on each of plots B and C indicates that they do frequent a very moist habitat.

5. *Microtus pennsylvanicus pennsylvanicus* (Ord), Meadow mouse. Five specimens were caught: one on plot A; 3 on plot B; and one on plot C. One skin was saved. Johnson states, "This mouse was not found to be very common, but may be more plentiful than results of the trapping may seem to indicate." Surber says that it is by far the most abundant small mammal in the State, and is of statewide distribution.
6. *Zapus hudsonius hudsonius* (Zimmerman), Hudson Bay jumping mouse. Nine specimens were caught on plot B and one on plot C, evidence which seems to indicate that this species has a decided preference for water. Five skins were saved. Caroline Sheldon (Nova Scotia) says that *Zapus* was never taken in the sphagnum swamps she trapped. The sphagnum swamp of plot C yielded one specimen in the 50 trap nights it was worked.

   Johnson states that *Z.h.hudsonius* probably occurs throughout Northern Lake County in suitable localities. He saw one and caught one specimen on the Isabella River opposite Rice Lake and the first portage landing above Rice Lake, respectively (20 miles southwest of Kekekabic). Preble reports 26 taken at Tower, St. Louis County, and others in various sections of the state. Eugene Surber, Minnesota, caught one specimen at Brule Lake and six at Four Mile Lake and Cross River, Cook County (20 and 30 miles from Kekekabic, respectively). Cahn caught numerous specimens throughout the Quetico.
7. *Napaeozapus insignis* (Preble), Woodland jumping mouse. One specimen was caught on plot A on July 29; the skin was saved. Measurements: 222-141-32-11 (white tip on tail—27 m.m). This is the third woodland jumping mouse taken in Minnesota. Eugene Surber caught the first one at Lower Brule River, Cook County, in 1923. The measurements of his specimen are: 237-147-30. Ralph T. King caught the second mouse at the Cloquet Forest Experiment Station, Carleton County, in 1935.

   Howell identified a mouse caught at the Cloquet Forest Experiment Station by C. M. Aldous in 1933 as *N. i. frutectanus*. Hatfield recorded King's and Surber's mice as *N. i. abietorum*. It is highly probable that King's and Aldous' specimens are of the same subspecies since they were caught in the same locality.

Most writers mention the fact that *N. insignis* prefers the immediate shoreline of a lake or stream. However, Sheldon has also caught them at spring holes in sphagnum swamps as far as a half mile from any lake. The specimen caught at plot A was on high, dry ground 100 yards from the spring hole of plot C and a fourth of a mile from the nearest large body of water (plot B).

The scientific names of mammals were taken from Hatfield's "Check List." I am indebted to Dr. Donald M. Hatfield and Dr. Gustav Swanson of the Division of Economic Zoology, University of Minnesota, for valuable aid in identifying the mammals and assistance in writing this paper. The skins and skulls that were prepared are in the Economic Zoology Collection, University of Minnesota.

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Div. of Economic Zoology, Univ. of Minnesota, St. Paul, Minn.

NOTES OF INTEREST

DUCK HAWKS OF THE MISSISSIPPI RIVER BLUFFS It is known that the duck hawk nests along the rugged North Shore of Lake Superior, on certain cliffs of the St. Croix River, and on some of the sheer limestone bluffs that face the Mississippi River from Red Wing southward.

This spring (1940) we decided to make a survey of the duck hawk population of the Mississippi River bluffs. All in all, we made four trips, the first three as far south as Lansing, Iowa, and the fourth to Frontenac, on Lake Pepin. We located most of the hawks by firing rifle balls into the cliffs where we suspected that they were nesting. Usually this ringing noise brought the peregrines out screaming, but occasionally nesting birds paid no attention to the shots. For obvious reasons we have not indicated in this note specific localities where we found nests or resident birds.

On our first trip, which was made during the last week of March, we observed 15 duck hawks at nine different cliffs. Most of the hawks permitted no large birds to loiter in the vicinity of their eyries; we saw them drive away bald eagles, buteos, turkey vultures, and crows. Sometimes the peregrines merely screamed without leaving their perches, and usually this was sufficient to drive the intruders away. Although we examined many cliffs on our first trip, we found no nests; neither did we witness the courtship flight of the duck hawk.

We saw fewer duck hawks on our second trip, which was taken during the last week in April, than we had seen a month earlier when the migration was in progress. We did, however, find a nest which contained 4 dark brown eggs. Two other cliffs had nesting sites, but no eggs had been laid at the time of our visit. These nesting sites were little depressions in the sparse sand on the otherwise bare limestone, and each was surrounded by a ring of pebbles.

The pair of hawks whose eggs we found and under whose eyrie we slept, began to call to one another before the sun rose. A half hour later one of them flew from the cliff, rapidly circled skyward, and soon appeared as a speck in the blue. For about 30 seconds the bird dived, twisted, and turned sharply in circles. Finally it sailed down to the cliff. We imagined that it had attacked a bird although we did not see it bring food to the eyrie.

On June 1, we made our third trip down the river and saw four pairs of duck hawks. The nest, which a month previous had contained 4 eggs, now held 2 well-grown young

which already screamed like the adults. We banded them with U. S. Biological Survey bands bearing the numbers 37-712,755 and 37-712,756. Both of the young, judging by body size and foot size, appeared to be females. After we left the vicinity of the nest, the adults quieted down, and we watched the male drop food to the female who caught it in her talons in mid-air. Hoping to see a falcon strike down a living bird, we released a homing pigeon near the nest. Although the falcon did give chase, the pigeon managed to escape. A second pigeon that we released on top of the cliff refused to fly into the open. Incidentally, we found pigeon bands in the nests of several duck hawks.

On the last trip we went to the Frontenac region where we hoped to get a young hawk to train for falconry. The one adult that we saw near the cliff did not scream or in any way show signs of being a nesting bird. A search of several hours failed to reveal either a nest or young hawks in the vicinity. *James A Struthers and Dana Struthers, Minneapolis, Minnesota.*

FURTHER NOTES ON THE DICKCISSEL For the second consecutive year the dickcissel has been common in Minnesota. When the bird did not appear with the other spring migrants, I did not anticipate seeing him again this year in Minnesota. In June, however, I came across a few of the birds singing from wires along the Duluth Highway between Forest Lake and Wyoming but saw no more of them on the entire trip to Duluth. However, on the return trip we came upon the bird again a few miles before reaching the Duluth Highway on the road from Taylors Falls.

The following week Mr. Whitney Eastman and I came upon a colony of the birds at Highway 66 and the Lilac Way just south of Minneapolis. During the following week several reports came to the Museum concerning the birds. On Thursday the 27th Mr. Feldman from Milwaukee and his son and I took a trip to Heron Lake. We found the bird common along the road between Minneapolis and Mankato and from Mankato to Heron Lake. The further south and west we went the more abundant the birds became. He informed me that they had been seen the previous week to the eastward to a point 7 miles to the west of Milwaukee.

Mrs. Loftus, Secretary of the Minneapolis Bird Club, called me to tell me that she had seen the dickcissel at Park Rapids, Minnesota. I was able to get no reports of the bird from the northwestern part of the State, though I found several bird students who had traveled through the region. Through this report it would seem to indicate that the dickcissel is distributed over a much greater area this year than last and is probbaly to be found in favorable places in the southern 2/3 of Minnesota apparently the heaviest concentration of the birds in the southwestern part of the state. *Milton Thompson, Minneapolis, Minn.*

THE CLIFF SWALLOW On July 18th I came upon several cliff swallows in a mixed flight of swallows near Loretto, Minnesota, and on June 8th, I found still other swallows feeding about a small stream a few miles south of Superior, Wisconsin. I found still a third flock of cliff swallows a mile south of the latter, roosting on telephone wires. We made a search for the nests but were unable to locate them.

Miss Webb and Mr. Fischer, both teachers in Winona, stated that they had been observing a colony of cliff swallows in White Water State Park. This was at least the second year that the birds had nested on this cliff. *Milton D. Thompson, Minneapolis, Minn.*

THE STATUS OF PIPING PLOVERS (*CHARADRIUS MELODUS*)

MINNESOTA POINT. The nesting of the colony of piping plovers on Minnesota Point during the summer of 1940 was unsuccessful. No young plovers were observed despite the fact that on June 8, Mr. Casimir Hero located eight nests with eggs. The eggs gradually disappeared. During the last week in June only two nests remained with eggs which later disappeared as did the birds. No piping plovers were seen on the Point for about five weeks including July and the first part of August. The filled-in area, their accustomed resting grounds, was deserted and silent. Gone were the swiftly beating wings; the melodious piping in the summer winds.

What caused the eggs to disappear is not known. One views with suspicion the low-cruising crows and the vagrant gulls. But they must remain blameless until the facts show the contrary. The loss of eggs was not new in the history of the colony. Each year some of the first nests have been destroyed by some unknown agent, However, the birds succeeded in incubating their second series of eggs. Each summer since 1936 when the author had the first opportunity to place the colony on record, several families of young plovers have been raised on the Point. Their behaviour during the past summer was an exception. They made no second effort on the Point but went elsewhere, probably to a more secluded beach.

The residence of piping plovers on Minnesota Point may prove to be of transitory duration. It is not known whether they nested there prior to 1936. During the last five years the invading plant communities have greatly changed the sandfill, which at present is very different from the original bare area. Birds of the open beach will no longer find it a suitable nesting site. Moreover, the increasing popularity of the Point as a recreation center, with a random cyclist, an indiscriminate hiker, the sprawling sun-bather, altogether, constitute a menace to the privacy of incubating birds, especially of the species with relatively long incubation period such as the piping plover.

Whether or not the piping plover may become a mere transient in the Duluth region, their brief residence on Minnesota Point has been an endless source of information, wonder and joy; something to wait and watch for; something to look at and tell others about. Their absence from the Point will constitute a definite loss in the natural assets of the Duluth region which may have been prevented by correct measures of convervation of natural areas. *Dr. Olga Lakela, Duluth, Minnesota.*

PACING MERGANSERS. Crossing Grand Portage Bay in Lake Superior on August 13, 1940, we saw in front of the boat 13 mergansers swimming along in a compact flock. We followed them in the motor boat, and when we were about 50 yards from them, they all started off over the water at full speed, half running, half flying. The young were unable to rise off the water and the adult female refusd to leave them. As we gradually overtook them at 10 miles an hour, we estimated that their speed was about 8 miles an hour. When they were 10 yards in front of us, they broke up into two groups of 5 and 8. The adult stayed with the larger group, still refusing to fly; and we left the birds there. When we were some distance away, the female flew from the larger to the smaller group of young. The mergansers did not dive at any time while we watched.

We identified these ducks as American mergansers; however, they might have been red-breasted mergansers, as both are found along the northeast shore of Lake Superior. Twelve is the maximum number of eggs for both of these fish ducks. Twelve half-grown young would be unusual. Perhaps this adult female was joined by a motherless brood from another nest. *R. M. Berthel, St. Paul, Minnesota.*

HERRING GULLS EAT GRASSHOPPERS. During a week spent on the North Shore of Lake Superior, from August 12 to 19, 1940, I checked the identity of about 200 of the hundreds of gulls seen, singly and in flocks, between Duluth and Grand Portage. Every one of the 200 proved to be a herring gull.

On a trip to Isle Royale on August 14 I saw about 50 of these gulls resting on the water a mile out from the island. None followed the boat; few were flying; and every bird was at least 100 yards from its nearest neighbor. They were still in this scattered formation when we returned 4 hours later. My curiosity was aroused when I saw those nearest the boat occasionally pick something from the surface of the water. I then noticed that there were many small and medium sized grasshoppers floating on the water, about half of them alive; but the waves from the boat made it impossible to collect any of them for identification. My rough estimate of their abundance was 150 to the mile on one side of the boat, from boat side to about 15 feet out. I first saw the grasshoppers a mile from shore, and they were abundant to 5 miles out; beyond that distance I saw only a few, and there were none near the Minnesota mainland. I assumed that it was these grasshoppers that the gulls were eating, for there was nothing else floating on the surface of the water. *R. M. Berthel, St. Paul, Minnesota.*

Third Annual Meeting of the Minnesota Orinthologists' Union

On May 18, 1940, the Minnesota Ornithologists' Union held its third annual meeting in the Minnesota Museum of Natural History on the campus of the University of Minnesota. After registration of members and guests the annual business meeting was called to order by the President, George N. Rysgaard. Since the secretary's report of the 1939 meeting at Duluth had been printed in *The Flicker*, the reading of the minutes was omitted. The treasurer's report was read and accepted.

The discussion of the place for the fourth annual meeting resulted in deciding that the M. O. U. will be guests of the St. Cloud members next year.

A motion was made by Miss Elwell and seconded by Mr. Friederich that each student member as well as each regular member receive a copy of each issue of *The Flicker*. The motion was carried. Mr. Arnold Erickson discussed the membership situation which is in so precarious a state that the financing of *The Flicker* is a matter of uncertainty each year. Dr. Swanson made a motion which was seconded by Mr. Breckenridge that Mr. Rysgaard be appointed chairman of a membership committee. Mr. Rysgaard was authorized to select the other members of the committee which would have as its aims the securing of new members and the stimulating of old members to pay dues promptly.

The nominating committee proposed the following slate of officers for 1940-41.

President—
Mr. George W. Friederich (St. Cloud)
Vice-president—
Mr. Milton D. Thompson (Mpls.)
Secretary-treasurer—
Miss Mary I. Elwell (Duluth)
Editor—
Mr. Arnold B. Erickson (St. Paul)
Regional Editors—
Dr. Olga Lakela (Duluth)
Mrs. W. C. Olin (Duluth)
Mr. Ralph Sauer (St. Cloud)
Mr. Horace Paul (Mpls.)

With no further business to transact the meeting adjourned.

During the lunch hour at the Minnesota Union Dr. Roberts explained how to reach the Long Meadow Gun Club for the bird excursion on Sunday morning. Before the afternoon session a group

picture was taken in the auditorium of the Museum.

Just before Dr. T. S. Roberts gave his talk on an ornithological expedition to Grant County in 1879, Dr. Gustav Swanson made a motion, seconded by Dr. Olga Lakela, that Dr. Roberts be made permanent honorary president of the Minnesota Ornothologists' Union. The motion was approved by a standing vote of the audience.

The afternoon program was made up of the following papers.

1. The natural science work of Dr. W. A. Welter and motion pictures of water birds of Heron Lake photographed by him (35 minutes). *George W. Friedrich, St. Cloud.*
2. Chukar partridge introductions (10 minutes). *G. N. Rysgaard, Augusta, Michigan.*
3. Ornithological expedition to Grant County in 1879 (20 minutes). *T. S. Roberts, Minneapolis.*
4. Wild geese at Lake Traverse. Colored motion pictures (20 minutes). *Ralph A. Woolsey, Minneapolis.*
5. A study of Wilson's snipe (20 minutes). *Arnold B. Erickson, Minneapolis.*
6. Bird communities of Minnesota Point. Colored motion pictures (25 minutes). *Casimir Hero, Renville.*
7. An injured pine grosbeak (15 minutes). *Mrs. Arthur R. Reinke, Duluth.*
8. Lead shot survey of Minnesota lakes in relation to waterfowl (15 minutes). *T. L. G. Osmer, Minneapolis.*
9. A stomach pump for the removal of lead shot from waterfowl (15 minutes). *Warren H. Nord, St. Paul.*
10. Natural history of the St. Croix Valley. Colored motion pictures (15 minutes). *W. J. Breckenridge, Minneapolis.*

On Sunday morning the members enjoyed a field trip to the Long Meadow Gun Club where a large number of birds were observed. A telescope set up on the grounds of the club made it possible to view clearly some of the rarer marsh brids.

After a picnic lunch served at the clubhouse, the third annual meeting adjourned.

Respectfully submitted,
MARY I. ELWELL,
Secretary-Treasurer.

TREASURER'S REPORT FOR THE YEAR
May 27, 1939-May 18, 1940

Balance on hand May 27, 1939:			
Received from Richard Voth		$33.10	
Receipts for the year:			
Dues	$87.25		
Interest on savings account	.12		
Exchange	.10	87.47	
			$120.57
Expenditures for the year:			
Telegram to George Rysgaard	.55		
May, 1939 Issue of The Flicker	19.50		
December, 1939 Issue of The Flicker	29.50		
May, 1940 Issue of The Flicker	38.50		
		$88.05	
Refund to St. Cloud student members, May 18, 1940		6.00	
			94.05
Balance on hand May 18, 1940			$ 26.52

Respectfully submitted,
MARY I. ELWELL,
Secretary-Treasurer.

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WILSON ORNITHOLOGICAL CLUB NUMBER

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THE

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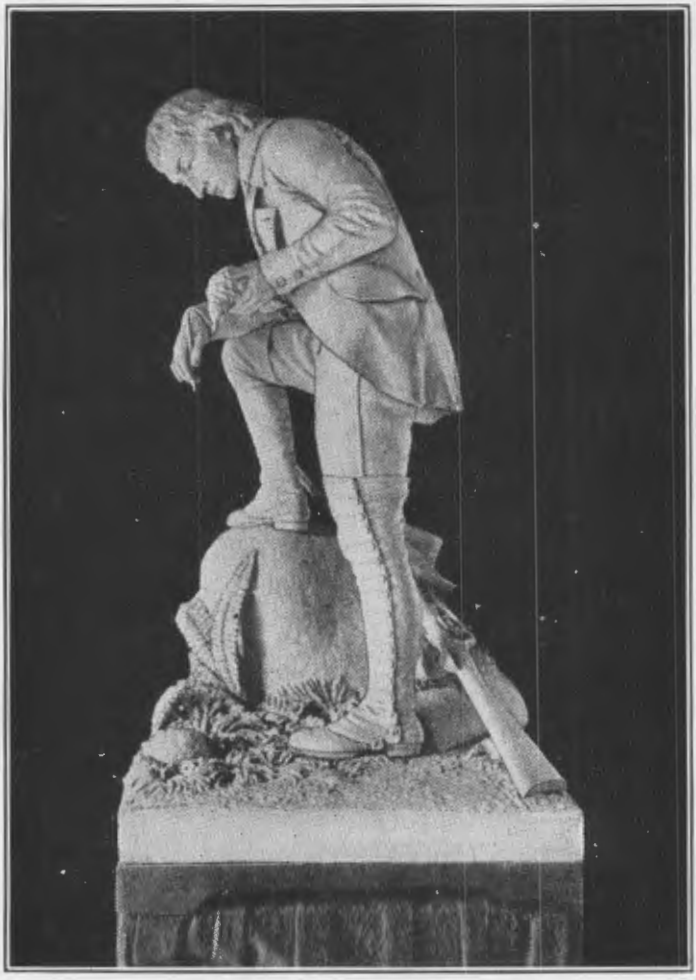
THE FLICKER is sent to all members not in arrear for dues. Dues for all members, $1.00 per annum, should be paid in advance to the secretary-treasurer.

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



ALEXANDER WILSON

Statuette by Alex. Calder

PRESENTED BY HIM TO

THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA

HEIGHT THIRTY INCHES

Calder's Statuette of Alexander Wilson

By T. S. Roberts

Writing in *Cassinia* for 1913, Dr. Witmer Stone, the ornithologist noted for his interest in Wilsoniana, stated that he had been surprised to learn recently of the existence in Philadelphia of a small statue of Alexander Wilson. It had been exhibited in the seventies at the Academy of Fine Arts in that city and attracted so much attention at that time that it was suggested that it should be cast life-size in bronze and placed in one of the city parks. This apparently was never done. Sometime later the statuette was presented to the Philadelphia Academy of Natural Sciences by its author, where it now adorns the library. The illustration accompanying Dr. Stone's article in *Cassinia* is, so far as known, the only previous occasion on which it has been presented in this form. It seemed specially appropriate to offer it on an occasion like the present, and the Philadelphia Academy kindly granted permission through the offices of its editor, Mr. McCreary Huston.

The sculptor was Alexander Milne Calder of Philadelphia, a Scotchman, born in Aberdeen, which probably accounted for his interest in Wilson, a fellow Scot. Mr. Calder informed Dr. Stone that he modeled the gun from Wilson's own fowling piece, which he found in the possession of a Philadelphia resident. The face was developed from a study of existing engravings and when compared with a water color of Wilson in the possession of the Academy that had formerly belonged to George Ord, Wilson's close friend, was found to be so strikingly similar that it can be accepted as a satisfactory likeness. The pose of the figure as a whole is that of an earnest, studious man pausing in the field while he contemplates a newly acquired specimen, which the pencil in the right hand suggests will ere long find a place in the ornithologist's portfolia. It is thus that the sculptor has left a happy portrayal of the character and the spirit of the man credited with being the "Father of American Ornithology." *Minnesota Museum of Natural History, Univ. of Minnesota.*

Wilson's Birds

By G. N. Rysgaard

ALTHOUGH the trumpets of poverty heralded the birth of Alexander Wilson, the Creator endowed his life with the qualities of an insatiable curiosity and the courage and indefatigability which characterized his brief life. Poverty followed him to the end of his days, but for every mite that he failed to gather in material wealth, he amassed twofold in a knowledge of natural history. His *American Ornithology* stands as a monument to his creditable life and study of ornithology.

As can well be seen in the writings of Wilson, his interest in birds lay in their mannerisms and personalities; and the task of nomenclature was an ever perplexing and perhaps arduous necessity. His slim resources limited his ornithological library to one volume, Bewick's British Birds. His friend Thomas Say allowed him the use of Turton's Linneus, and he was indebted to the Philadelphia Library for the use of Lathram's publication.

Wilson expressed himself concerning the onerous task of systematics in the following manner in a letter to his friend William Bartram in 1807: "The more I read and reflect upon the subject, the more dissatisfied I am with the specific *names* which have been used by almost every writer. A name should, if possible, be expressive of some peculiarity in colour, conformation, or habit; if it will equally apply to two different species, it is certainly an improper one. Is *migratorius* an epithet peculiarly applicable to the Robin? Is it not equally so to almost every species of *Turdus* we have? *Europea* has been applied by Pennant to our large *Sitta* or Nuthatch, which is certainly a different species from the European, the latter being destitute of the black head, neck, and shoulders of ours. Lathram calls it *Carolinensis,* but it is as much an inhabitant of Pennsylvania and Newyork as Carolina. The small red-bellied *Sitta* is called *Canadensis* by Lathram, a name equally objectionable with the other. Turdus *minor* seems also improper; in short I consider this part of the business as peculiarly perplexing; and I beg to have your opinion on the matter, particularly with respect to the birds I have mentioned, whether I shall hazard a new nomenclature, or, by copying, sanction what I do not approve of" (Biographical Sketch of Alexander Wilson, Supplement to the American Ornithology of Alexander Wilson by George Ord, 1825).

Following is a list of 32 species of birds described by Alexander Wilson and which remain to his credit today:

Canvas-back *Nyroca valisineria* (Wilson) *Anas valisineria* Wilson, Am. Orn., viii, 1814, 103 (pl. 70, fig. 5).

Ruddy Duck *Erismatura jamaicensis rubida* (Wilson) *Anas rubida* Wilson, Am. Orn., viii, 1814, 128 (pl. 71, figs. 5, 6)

Mississippi Kite *Ictinia misisippiensis* (Wilson) *Falco misisippiensis* Wilson, Am. Orn., iii, 1811, 80 (pl. 25, fig. 1)

Eastern Goshawk *Astur atricapillus atricapillus* (Wilson) *Falco atricapillus* Wilson, Am. Orn., vi, 1812, 80 (pl. 52, fig. 5)

Sharp-shinned Hawk *Accipiter velox velox* (Wilson) *Falco velox* Wilson, Am. Orn., v. 1812, 116 (pl. 45, fig. 1)

Eastern Solitary Sandpiper *Tringa solitaria solitaria* Wilson *Tringa solitaria* Wilson, Am. Orn., vii, 1813, 53 (pl. 58, fig. 3).

American Knot *Calidris canutus rufus* (Wilson) *Tringa rufa,* Wilson, Am. Orn.. vii, 1813, 43 (pl. 57, fig. 5).

Gull-billed Tern *Gelochelidon nilotica aranea* (Wilson) *Sterna aranea* Wilson, Am. Orn., viii, 1814, 143 (pl. 72, fig 6).

Black-billed Cuckoo *Coccyzus erythrophalmus* (Wilson) *Cuculus erythropthalmus* Wilson, Am. Orn., iv, 1811, 16 (pl. 28, fig. 2).

Eastern Whip-poor-will *Antrostomus vociferus vociferus* (Wilson) *Caprimulgus vociferus* Wilson, Am. Orn., v. 1812, 71 (pl. 41, figs. 1-3).

Fish Crow *Corvus ossifragus* Wilson *Corvus ossifragus* Wilson, Am. Orn., v. 1812, 27 (pl. 37, fig. 2).

Clark's Nutcracker *Nucifraga columbiana* (Wilson) *Corvus columbiana* Wilson, Am. Orn., iii, 1811, 29 (pl. 20, fig. 2).

Long-billed Marsh Wren *Telmatodytes palustris palustris* (Wilson) *Certhia palustris* Wilson, Am. Orn., ii, 1810, 58 (pl. 12, fig. 4).

Blue-headed Vireo *Vireo solitarius solitarius* (Wilson) *Muscicapa solitaria* Wilson, Am. Orn., ii, 1810, 143 (pl. 17, fig. 6).

Tennessee Warbler *Vermivora peregrina* (Wilson) *Sylvia peregrina* Wilson, Am. Orn., iii, 1811, 83 (pl. 25, fig. 2).

Nashville Warbler *Vermivora ruficapilla ruficapilla* (Wilson) *Sylvia ruficapilla* Wilson, Am. Orn., iii, 1811, 120 (pl. 27, fig. 3).

Northern Parula Warbler *Compsothlypus americana pusilla* (Wilson) *Sylvia pusilla* Wilson, Am. Orn., iv, 1811, 17 (pl. 28, fig. 3).

Magnolia Warbler *Dendroica magnolia* (Wilson) *Sylvia magnolia* Wilson, Am. Orn., iii, 1811, 63, (pl. 23, fig. 2).

Cerulean Warbler *Dendroica cerulea* (Wilson) *Sylvia cerulea* Wilson, Amer. Orn., ii, 1810, 141 (pl. 17, fig. 5).

Bay-breasted Warbler *Dendroica castanea* (Wilson) *Sylvia castanea* Wilson, Am. Orn., ii, 1810, 97 (pl. 14, fig. 4).

Northern Pine Warbler *Dendroica pinus pinus* (Wilson) *Sylvia pinus* Wilson, Am. Orn., iii, 1811, 25 (pl. 19, fig. 4).

Kentucky Warbler *Oporonis formosus* (Wilson) *Sylvia formosa* Wilson, Am. Orn., iii, 1811, 85 (pl. 25, fig. 3).

Connecticut Warbler *Oporonis agilis* (Wilson) *Sylvia agilis* Wilson, Am. Orn., v, 1812, 64 (pl. 39, fig. 4).

Mourning Warbler *Oporonis philadelphia* (Wilson) *Sylvia Philadelphia* Wilson, Am. Orn., ii, 1810, 101 (pl. 14, fig. 6).

Wilson's Warbler *Wilsonia pusilla pusilla* (Wilson) *Muscisapa pusilla* Wilson, Am. Orn., iii, 1811, 103 (pl. 26, fig. 4).

Western Tanager *Piranga ludoviciana* (Wilson) *Tanagra ludovociana* Wilson, Am. Orn., iii, 1811, 27 (pl. 20, fig. 1).

Northern Pine Siskin *Spinus pinus pinus* (Wilson) *Fringilla pinus* Wilson, Am. Orn., ii, 1810, 133 (pl. 17, fig. 1).

Eastern Savannah Sparrow *Passerculus sandwichensis savanna* (Wilson) *Fringilla Savanna* Wilson, Am. Orn., iii, 1811, 68 (pl. 22, fig. 3).

Northern Seaside Sparrow *Ammospiza maritima maritima* (Wilson) *Fringilla maritima* Wilson, Am. Orn., iv, 1811, 68 (pl. 34, fig. 2).

Eastern Tree Sparrow *Spizella arborea arborea* (Wilson) *Fringilla arborea* Wilson, Am. Orn., ii, 1810, 123 (pl. 16, fig. 3).

Eastern Field Sparrow *Spizella pusilla pusilla* (Wilson) *Fringilla pusilla* Wilson, Am. Orn., ii, 1810, 121 (pl. 16, fig. 2).

Eastern Song Sparrow *Melospiza melodia medolia* (Wilson) *Fringilla melodia* Wilson, Am. Orn., ii, 1810, 125 (pl. 16, fig. 4).

In honor of the great ornithologist, no less than seven species have borne his name. Following is a list of these species:

Wilson's Tern *Sterna hirundo hirundo* Linnaeus.

Wilson's Petrel *Oceanites oceanicus* (Kuhl).

Wilson's Phalarope *Steganopus tricolor* Vieillot.

Wilson's Snipe *Capella delicata* (Ord).

Wilson's Plover *Pagolla wilsonia wilsonia* (Ord).

Wilson's Warbler *Wilsonia pusilla pusilla* (Wilson).

Wilson's Thrush *Hylocichla fuscescens fuscescens* (Stephens). *Minn. Museum Nat. History, Univ. Minn.*

The Minnesota Ornithologists' Union

By Gustav Swanson

IN 1938 local bird clubs in the Twin Cities, St. Cloud, and Duluth joined to form the Minnesota Ornithologists' Union with the objective of stimulating greater interest in Minnesota ornithology by holding an annual meeting and field day, and by cooperating in the publication of a journal devoted to Minnesota birds. The story of the MOU, therefore, is the story of the three organizations which joined to form it.

The first of these, the Minnesota Bird Club, was formed by a small group of young men actively interested in field studies of birds. Its organization meeting was held March 15, 1929 with 13 members present, including the following: S. A. Grimes, one of the nation's foremost bird photographers whose name is now so closely associated with Florida ornithology; E. D. Swedenborg, whose contributions to Minnesota ornithology are well known; Alden Risser, since become a physician in Stewartville, Minnesota; Dr. Charles Evans, who has been working on wildlife diseases in recent years; Donald Fischer and Stanley Stein, promising naturalists from Shakopee whose careers were later terminated by untimely deaths; and several whose interest in birds has not continued so actively.

Those present at this initial meeting were agreed that though the group was small there was the interest and enthusiasm which justified organizing. Three chief activities were discussed and agreed upon, regular meetings, publication of a mimeographed journal, and frequent field excursions. The meetings were first scheduled for twice each month, but they were soon established as monthly meetings instead, and as such have continued to the present. The records indicate that two officers were elected, the writer as President and Charles Evans as Secretary-Treasurer.

The question of the name for the projected mimeographed publication was settled upon at the second meeting of the club on March 27, 1929. It was then decided that the publication should be called *The Flicker*, and by the time volume I, number 3 was issued an attractive cover illustration of the flicker had been drawn and contributed by W. J. Breckenridge and was in use. *The Flicker* appeared in the same dress as a mimeographed journal until 1937, when with the beginning of volume 9 it appeared in its present printed form.

Irregularly issued, and with contents not always strictly scientific, *The Flicker* in its mimeographed form was nevertheless valuable in maintaining interest in the group. It contained chiefly short notes, occasionally a longer paper, and every year its chief contribution was a compilation of the Minnesota nesting records for the year. In 1939 E. D. Swedenborg summarized the ten years of nesting records as compiled annually in *The Flicker* and pointed out that breeding records of 191 species had been recorded for the state in that period.

My count shows that in the 8 years of its life as a mimeographed publication *The Flicker* appeared in 31 issues containing a total of 378 pages. Since 1937, when it was first printed, 10 issues have appeared, containing 142 pages. Although it has been nominally a quarterly ever since the first two years of its existence, there have been a number of times when because of lack of material or for purposes of economy double numbers have appeared.

The first two meetings of the group were held in the Walker Branch Library in Minneapolis, but since a number of the members were students at the university the group was glad to adopt the

suggestion of Dr. T. S. Roberts that the Minnesota Museum of Natural History be adopted as its headquarters, and all meetings since April, 1929, have been held there. This fall the Minnesota Bird Club begins to meet in the new building under the quasi-official sponsorship of the museum. The group has increased in size materially over the span of years. Most of the regular monthly meetings have an attendance of 25 to 50, but occasionally much larger groups have assembled. At a meeting in May, 1940, sponsored jointly by the Minnesota Bird Club, Minneapolis Audubon Society, and Minneapolis Bird Club, Dr. O. S. Pettingill spoke and drew an audience which exceeded by over 200 the capacity of the Minnesota Museum of Natural History Auditorium, then opened for the first time.

The second of the two organizations is the T. S. Roberts Ornithology Club of St. Cloud. This group has usually consisted in large part of the students of Professor G. W. Friedrich of St. Cloud State Teachers College. The organization was completed in August, 1934, with 20 charter members and the following officers: President, John J. Tessari; Vice-president, Nestor Hiemenz; Secretary-Treasurer, John J. Cochrane; and Librarian, Jack Benson. The club had a very active first year well summarized in a mimeographed *Minnesota Bird Life Magazine* which appeared in August, 1935, as its official publication. Outside speakers at the regular meetings included Dr. Laurence Palmer of Cornell University, Mrs. J. A. Thabes of Brainerd, Mrs. H. C. Bowing of the State Federation of Women's Clubs Conservation Committee, and the late Dr. Wilfred Welters of State Teachers' College, Morehead, Kentucky.

One of the major undertakings was the official publication. The one already alluded to contained articles on the waterfowl crisis by Irving Brant and W. T. Hornaday, records of birds rare in central Minnesota, and a tribute to Dr. T. S. Roberts and Prof. G. W. Friedrich for their aid in the formation of the club. This issue was preliminary to a printed annual the first of which appeared in April, 1936, under the name *Journal of Minnesota Ornithology*. This issue contained papers on Minnesota birds by T. S. Roberts, Harry C. Oberholser, A. Dawes Du Bois, and several of the local members of the T. S. Roberts Club. The second issue of this *Journal,* for 1937, was the last which appeared, since with the formation of the Minnesota Ornithologists' Union in 1938, all of the affiliated clubs threw their support to *The Flicker,* which as the older local bird journal became the official one for the MOU.

The third and last club involved in the formation of the MOU was the Duluth Bird Club, organized on April 24, 1937, by fifteen charter members who elected the following officers: President, Miss Mary Elwell; Secretary-Treasurer, Mrs. Philip J. Frost; Advisor, Dr. Olga Lakela.

The organization of the MOU was initiated at St. Cloud October 10, 1937, when George Rysgaard and a group of Minnesota Bird Club members conferred with the T. S. Roberts Ornithology Club about the possibility of joining to form a statewide society. The Duluth Bird Club was reached by correspondence and on April 13, 1938, representatives of all three groups met at the University of Minnesota and organized the Minnesota Ornithologists' Union with the following as the first roster of officers: President, G. N. Rysgaard; Vice-president, Mary Elwell; Secretary-treasurer, Richard Voth; and Editor, Dr. Charles Evans.

The MOU invites the affiliation of any local bird club in Minnesota with 10 members or more, and the membership of anyone interested in Minnesota birds, whether or not he is a resident of the state. Individual members may join directly, or through an affiliated club, of which there are now five, the Lakeview Branch of the Duluth Bird Club and the Minneapolis Bird Club having affiliated in 1939. *Division Economic Zoology, Univ. Minn., St. Paul, Minn.*

Editions of Wilson's "American Ornithology"

By Arnold B. Erickson

TODAY many persons are interested in birds and bird books. They want to know how to identify birds and something about their habits. This appreciation of birds is manifested in the hundreds of bird clubs, large and small, and the many periodicals, well known or obscure, that have flourished, died, and flourished again in the United States since the middle of the nineteenth century. This continuous and ever recurring appreciation has not only created a need for bird books, but the bird books themselves have whetted the appetites of the public.

Bird books and periodicals, because of this sincere and widespread interest during the past 40 years, have always been in demand by laymen, much more so than books in any other field of biology. But this has not always been true.

In earlier times when an author, Wilson for example, planned to write a book or several books on birds, it was necessary for the author himself or his friends to travel about the country taking subscriptions for the proposed work, and it was only after a certain number had been obtained that the publisher ventured to produce the book. This plan was used if the author was not able to get the government, the state, or wealthy citizens to assist with the financial support. After the Herculean task of gathering the field data, painting the birds, writing the books, and obtaining subscriptions, Wilson saw the first 7 volumes of his *American Ornithology* published. His editor, George Ord, completed the last 2 volumes.

Once Wilson's books had become established as classics in the field of ornithology, and when more and more persons felt the need and desire for a knowledge of birds, publishers realized that Wilson would sell, and many editions were produced. Casey Wood, in *The Literature of Vertebrate Zoology,* has said of the *American Ornithology,* "There probably has never been an American treatise on zoology so thoroughly exploited and out of which so many composite works have been fashioned—so many veritable cold literary dishes—as Wilson's Ornithology."

One of the most valuable discussions of early Wilson editions is that of Walter Faxon which appeared in *The Auk* 18:216-218, 1901, from which much of the information in this article has been taken.

The original edition of the *American Ornithology* in 9 folio volumes was published in Philadelphia during the years 1808-14. Wilson died August 23, 1813, while the eighth volume was in press. George Ord, who completed the work in 1814, furnished the text that accompanies the few plates that Wilson had drawn for the ninth volume. In September 1808, 200 copies of volume one were published. In order to increase the subscription list for his work, Wilson, on the 21st of September, 1808, started on a tour of New England which eventually took him south to Georgia and back to Philadelphia in the early part of 1809. He had increased the subscriptions to a number that warranted the printing of 300 additional copies of the first volume. Although this second edition of volume one bears the date 1808, it was published in 1809 and is in many ways more than just a second issue, for the author added new information that he had collected on his subscription tour, and the text was reset.

Ord, after carefully revising Wilson's last 3 volumes, brought out a second

edition of them in 1824 (volumes 7 and 8) and 1825 (volume 9). At the same time, 1824, he reissued the first 6 volumes, but retained the title pages and dates, 1808-14, of the original editions. The reissue contains many additions and emendations and is much more than just a reprint of the first edition. Faxon has called these reprints and the 1824-25 edition of volumes 7-9 the second or Ord edition of the *American Ornithology*, whose true date of publication is 1824-25.

Faxon has given the following directions for separating the original editions from the second or Ord edition. "Sets purporting to be the original editions are sometimes made up by combining volumes belonging to the first and second editions. When this mixture involves the first six volumes, which bear the same ostensible dates in both editions, a convient ear-mark for detecting the Ord reprints will be found in the printer's signatures. The signature of the sheet following Z is a double A. In the original edition the double letter is a small capital and lower case (Aa),—in the 1824 reprints it is capital and small (AA)."

The library of the Minnesota Museum of Natural History contains 5 different editions of Wilson's Ornithology. In addition, the University of Minnesota Library has 3 editions. The large 9 volume folio edition in the Museum Library is the second or Ord edition of 1824-25. It is in good condition and has finely-colored plates. The first edition was published at $120.00 per set. This edition or much more commonly the second edition or sets made up of the two editions, sell today for around $150.00.

The first 2 volumes of the Harrison Hall edition (New York and Philadelphia) were issued in 1828, the third in 1829. A fourth volume containing the colored plates was issued also, but it seems to be lacking in many sets. Neither the Museum nor the University Library set contains the folio volume. This edition was bound in 2 sizes. In the one, the pages are 10½ by 8½ inches; in the other, 9 by 5⅝ inches. In the third volume of this issue Cuvier's name appears in the list of subscribers. The complete set with plates is occasionally advertised today at $75.00. The 3 volumes of texts alone are much less expensive.

Robert Jameson's edition of 1831, the first European edition, was issued in 4 volumes in 2 types of binding, by Constable Edinburgh, at 3s. 6d. and 5s. per volume. Depending on the binding, sets sell at the present time from $3.00 to $6.00 and more. From the standpoint of typography and format it is a very satisfactory issue, and is the only edition which reproduces the texts of the first edition of volume one. There are no figures of birds in this edition, but in most sets each volume has an engraved frontispiece. That in the first volume is a portrait of Wilson. The Museum copy is bound in full polished blue calf.

Sir William Jardine edited a 3 volume set of Wilson that was published in 1832 by Cassell Petter & Galpin, London. Sets with uncolored plates sold for 63s.; those with colored plates sold for 136s. 6d. The price at the present time varies from $20.00 to $30.00. Like the 9 volume first and second editions, the colored plates, of which there are 103, are bound in with the text. The text itself is in places much condensed but excellent notes are added. If an inexpensive edition with plates is desired, this is probably the best one to own. A reprint of this edition was published by Bouton: New York in 1877.

In 1840 Brewer brought out a reprint of Jardine's 1832 edition, which was published by Magagnos, New York. It was a popularly priced edition ($2.50) adapted to general circulation, and for the first time it brought Wilson's writings within the price range of all persons interested in birds. It contains a few black and white plates, a synoptic list of birds of the United States, and material from Audubon and other ornithologists. It is listed in second hand book catalogues at about $6.00. The Museum copy bears the date 1854.

Porter and Coates' editions (Philadelphia, 1871 and 1878) were printed from

the Harrison Hall edition of 1828-29. They were issued in 3 price ranges, $7.50, $20.00, and $45.00, depending on the binding, number of volumes per set (the $7.50 issue of 1878 is a one volume edition without plates), and the plates, colored or uncolored. The better sets bring today $50.00 and more. The Museum copy of this edition is undated, but apparently it was printed about 1895-96. There are 3 volumes imperial 8 vo of text with a folio volume of uncolored plates embracing 385 figures of birds, mostly life size. It is elegantly bound in half calf and has gilt tops.

All of the above editions with the exception of Jameson's (1831), as already noted, follow the amended text of Wilson's second issue of the first volume, and all except the Ord edition of 1824-25 contain Bonaparte's material and other matter foreign to the original edition.

Among other editions of Wilson that might be mentioned are the 3 volume Chatto and Windus (London) issue of 1876, which was published at 63s. for the small set and 126s. for the large paper edition, which at the present time is worth about $30.00; Bonaparte's 4 large quarto volumes running from 1825-33, which was published at $100.00 a set and sells today for $75.00 to $100.00; and the 3 volume edition of Bonaparte and Baird published in 1878. *Division of Economic Zoology, University of Minnesota, St. Paul, Minn.*

1940 Minnesota Nesting Records

By Hugh R. Engstrom

THIS year's compilation is the result of the work of 54 individuals or groups affiliated with the MOU. Nesting data, gathered in about 41 areas in all parts of the state, have been submitted on a total of 97 species of birds. For some reason the interest in nesting records has fallen off considerably in the last two years, but those who have contributed must be commended for their diligence and their cooperation in making this report possible.

Some of the 1940 records of more than passing interest, either because of their rarity or because of unusual circumstances connected with them, pertain to the following species: black duck, hooded merganser, duck hawk, piping plover, upland plover, Forster's tern, black tern, ruby-throated hummingbird, cliff swallow, yellow warbler, mourning warbler, and yellow-headed blackbird.

LOON. A single nest of the great northern diver was found this year on May 30, at French Lake near Aitkin, Minnesota by Mrs. W. C. Olin of Duluth. In addition 5 recently hatched young were seen on July 5 and 6, at Sea Gull Lake, Cook County by Dr. Olga Lakela, Dr. Elizabeth Graybeal, Miss Mary Elwell, Edward Maher and Casimir Hero of Duluth. The last record for this species was obtained by C. Hero on July 21, at Long Lake, Aitkin Co., when he saw 2 young with the female.

HOLBOELL'S GREBE. Kenneth Carlander was fortunate to find 7 young, just out of the nest, at Lake Vermillion, St. Louis Co., on July 30.

PIED-BILLED GREBE. There were two records for this Grebe. The first nest, found on a pond near Pleasant Lake contained 1 downy young; several others swam about. The second nest was located on a pond near Grand Lake. Both reports were submitted by the T. S. Roberts Ornithology Club and were for June 12.

GREAT BLUE HERON. The T. S. Roberts Club reported an undetermined number of this species incubating at the colony near Rockville, Stearns Co., on May 19. John Strey of Duluth visited

a rookery of approximately 50 nests near Granite Falls, Yellow Medicine Co., on May 12. On investigating 8 nests he found they contained 5 eggs each.

AMERICAN BITTERN. In a marsh between University Ave. and Hilltop Golf Course (St. Paul) Miss Rhoda Green found a nest with 4 eggs on May 29. At Mendota on June 29, Arnold Erickson and Dana Struthers observed 2 young birds. Mr. A. D. DuBois found a nest of 4 eggs at Lake Minnetonka on June 7.

LEAST BITTERN. During the week beginning June 3, Mr. DuBois found 3 nests of this odd looking bird, containing 5, 4 and 6 eggs respectively. The nests were found in the vicinity of Lake Minnetonka.

MALLARD. Five observers reported this species. The first nest of the season (12 eggs) was observed west of St. Cloud on Lake Osakis by the T. S. Roberts Club on May 15. The last nest was reported on July 31, from Lake Vermillion by K. Carlander.

BLACK DUCK. The first report of this species in four years came from R. M. Berthel. A hen with 5 half-grown young were seen August 10, on Basswood Lake, St. Louis County.

PINTAIL. A nest with 6 eggs was observed by the T. S. Roberts Club at Lake Osakis on May 15. The nest was destroyed.

BLUE-WINGED TEAL. Because of the numerous reports of this duck only the first and last are mentioned. The earliest nest of the season was seen by the T. S. Roberts Club on May 22, in a slough near Clear Lake; it contained 11 fresh eggs. At Otter Lake, Ramsey Co., on July 15, R. M. Berthel saw a hen and 10 downy young.

SHOVELER. The single report for the spoonbill was received from C. Edward Carlson, who found on May 21, in Martin County a nest with 8 eggs. The nest was later destroyed.

WOOD DUCK. This duck was found incubating on May 19, at the Bass Pond, Hennepin Co., by the members of the MOU who attended the annual meetings in Minneapolis this spring.

GOLDEN-EYE. Six young and the adult birds were seen on Lake Vermillion, July 30 by K. Carlander. A single record.

RUDDY DUCK. R. M. Berthel observed a hen ruddy duck at Otter Lake, Ramsey Co., on July 18, with 5 downy young.

HOODED MERGANSER. A female of this species, with 6 downy young, was observed by the T. S. Roberts Club on July 20, near St. Cloud. K. Carlander witnessed an unusual sight in that he saw 35 young following one parent on Lake Vermillion, July 31.

AMERICAN MERGANSER. Dr. Lakela and others observed 7 young with the female and 8 young with the female on July 5 and 7, and young with the female on July 6 at Sea Gull Lake, Cook County. On August 13, at Grand Portage, Cook Co., R. M. Berthel noticed a hen with 12 half-grown young.

COOPER'S HAWK. The reports for this species come on widely separated dates. The T. S. Roberts Club found a nest with an incubating bird on March 30, at Cold Spring. Mr. L. Hackl found a young hawk on the ground under the nest he located on the North Shore of Lake Superior near Duluth on July 1.

BROAD-WINGED HAWK. One report came from Mr. DuBois for the Minnetonka area. He saw an adult incubating on April 27, and again on May 2.

BALD EAGLE. A single nest was found on July 6, at Sea Gull Lake by Dr. Lakela, Dr. Graybeal, Miss Elwell, E. Maher and C. Hero. It is believed the nest contained 2 young.

MARSH HAWK. A nest with 5 eggs was found in the vicinity of Clear Lake, near St. Cloud, on May 22 by the T. S. Roberts Club.

OSPREY. Two young birds were observed leaving the nest on July 24, at Lake Vermillion by K. Carlander. This was the only record for the fish hawk.

SPARROW HAWK. A nest was found in Ramsey County by Byron Harrell and William Longley on June 19. As the nest was at least 50 feet up the

young were not observed.

DUCK HAWK. James and Dana Struthers saw 2 young in a nest in Houston Co. on June 1.

RUFFED GROUSE. G. Rysgaard saw 8 young that were about 2 days old on June 12, and 9 young on July 3, at Sturgeon Lake. John C. Andrews flushed a female with 8-10 young on Honeymoon Trail, Poplar River, Cook Co. on July 14.

HUNGARIAN PARTRIDGE. C. Edward Carlson was the only observer who reported this species. His dates for 8 nests ranged from May 20 to June 26. The nests were all found in Martin County and usually contained from 12-20 eggs. Only a few eggs were successfully hatched.

RING-NECKED PHEASANT. Many nests were reported for this species. The first of the season, a 9 egg nest, was found by C. Hero in Renville Co. on May 5. The last record, a female with 7 young sighted on the early morning of August 5, at Lake Sylvia, Wright Co., was made by the author.

VIRGINIA RAIL. Four observers reported this species. On June 7, Mr. DuBois found two nests with 10 eggs each at Lake Minnetonka. Arno'd Erickson and Dana Struthers located a nest with 1 newly hatched young and 2 eggs at Mendota on June 29, and Rhoda Green found a nest near St. Paul which contained 9 eggs on May 29.

SORA RAIL. As was true with this species last year, C. Hero reported the only nests for the Duluth area. On June 21, he found a nest with 2 young and 5 eggs; the second nest, found July 1, contained 1 young and 1 egg. Mr. DuBois found a nest with 11 eggs on June 8; the last young hatched and left the nest on June 19.

FLORIDA GALLINULE. The single record of this species was submitted by A. D. DuBois, who found at Lake Minnetonka on June 3, a nest with 10 eggs.

COOT. The T. S. Roberts Club saw a nest at Clear Lake on May 22, which held 4 eggs. A. D. DuBois, saw a nest with 7 eggs on June 3, at Minnetonka. R. M. Berthel sent in an interesting report from Otter Lake where he worked with this species. In 6 families observed both adults were present and the young numbered 5, 6, 6, 7, 5, and 4 respectively. These families were seen on July 8.

PIPING PLOVER. Minnesota Point and Lake of the Woods were again the only reported nesting sites of the species. All nests reported contained 4 eggs. The Duluth reports came from C. Hero, 8 nests; Ornithology class of Duluth State Teachers, 4 nests; Mrs. Olin, 3 nests. The dates ranged from May 23 to June 7. K. Carlander and Mrs. Carlander were responsible for the reports from Pine Island, Lake of the Woods. They found 5 nests on June 23, and reported all eggs hatched by July 11.

KILLDEER. As a great many nests of the killdeer were found, the earliest and latest nests are mentioned. Miss Alma Chesley, of Duluth, found a nest with 4 eggs in the Forest Hill Cemetery on May 16. The author found a nest at Sand Lake, Minnesota on July 11. The female was incubating and no effort was made to count her eggs.

UPLAND PLOVER. C. Edward Carlson found, in Martin County on May 24, a nest with 4 eggs.

SPOTTED SANDPIPER. Numerous nests were reported. C. Hero of Duluth found 8 nests in early June on Minnesota Point. On a trip to Duluth and the North Shore on June 7, Mr. Whitney Eastman (Mpls.) found a nest with 4 eggs on Minnesota Point. Other nests were reported by Mrs. W. C. Olin, George Rysgaard, and K. Carlander.

HERRING GULL. Mr. and Mrs. K. Carlander caught and banded 23 young birds on June 30, at Gull Rock, Lake of the Woods. In the middle of June an adult female, which had cared for a brood of 7 young, was killed by accident at Lake Kabetogama. Six of the young were transported to Sand Lake, Minnesota where the author saw them on July 1. They all survived. Lakela, Graybeal, Elwell, Maher, and Hero saw three young on July 3 at Silver Cliff, Lake Superior.

FORSTER'S TERN. R. M. Berthel found a colony of about 25 pairs at Otter Lake, Ramsey Co. on July 12. In this group he saw 6 half-grown and 4 downy young, all swimming.

COMMON TERN. Thirty-four nests of this species were found at Lake of the Woods by Mr. and Mrs. K. Carlander on June 23. The nests averaged 2-3 eggs each.

BLACK TERN. In St. Paul on May 29, Rhoda Green found a nest built of reeds which held 3 eggs. C. Hero saw a nest with 2 eggs on Minnesota Point on June 20. The author noted 6 nests at Sand Lake, Minnesota. All were on floating masses of vegetation and averaged 3 eggs each. In some cases young were hatching; they were banded as soon as they attempted to enter the water. A. D. DuBois saw several nests at Lake Minnetonka on June 3, mainly with 3 eggs.

MOURNING DOVE. Almost every observer reported nesting doves this year. The first and last records were obtained by Harrell and Longley on May 9 and June 19 for Ramsey Co.—2 nests with 2 eggs each. Several nests were reported by A. D. DuBois and G. Rysgaard. C. Hero and two of his students, James Kottom and Jack Sandberg, located several nests near Renville, Minnesota.

YELLOW-BILLED CUCKOO. A nest containing 2 eggs was found near St. Cloud on June 18, by the T. S. Roberts Club.

BLACK-BILLED CUCKOO. Three reports came in for the rain crow. Mr. A. D. DuBois located a nest with 5 eggs on June 12, near Lake Minnetonka. Harrell and Longley saw a nest with 4 eggs on July 15, and Mrs. Olin found a nearly grown young on Minnesota Point on August 23.

GREAT HORNED OWL. On February 27, a nest with 3 eggs was found at the Heron colony near St. Cloud, by the T. S. Roberts Club. A. D. DuBois found on April 22, at Minnetonka, a nest with 3 young. The 2 young St. Paul ornithologists, Harrell and Longley, found a nest with 3 young on May 4.

SHORT-EARED OWL. A nest of the marsh owl was found near Mayhew Lake on June 20 by the T. S. Roberts Club.

NIGHTHAWK. Dr. Lakela discovered a nest with 2 eggs on Beck's Road near Duluth on June 16. The nest was empty on June 25. Warren H. Nord and the writer observed a young nighthawk on the University Campus, May 20.

CHIMNEY SWIFT. R. M. Berthel caught an immature swift after a driving rain on June 23, at White Bear Lake. He dried it off with corn meal, and it was able to return to its nest in a nearby chimney.

RUBY-THROATED HUMMINGBIRD. We have two reports for the hummer. Miss Ruby Morine (Mpls.) found a nest with 2 eggs at Nissawa, Minnesota. On August 14, Mrs. Olin found a young bird in a nest at Duluth. She first observed the nest on July 19.

KINGFISHER. Arnold Erickson saw several kingfisher holes in the wall of a sheer bank on Sorrens Bluff at Red Wing on April 21. Several birds were seen. At Red Wing on June 15, G. Rysgaard observed several fledged young.

FLICKER. Two nests were found on June 5, by the T. S. Roberts Club. One contained a family of noisy young and the other an undetermined number of young. Calvin Jevne of Renville saw a nest with 3 eggs on May 12. C. Hero, on June 20, observed young awing on the D. S. T. C. campus.

RED-BELLIED WOODPECKER. Harrel and Longley noted an adult bird feeding her young on May 4, at St. Paul.

RED-HEADED WOODPECKER. Near Avon on June 19, a nest, containing an undetermined number of young, was found by the T. S. Roberts Club.

HAIRY WOODPECKER. In Hennepin Co. on May 30, young were found in a nest about eight feet off the ground by Harrell and Longley. The T. S. Roberts Club observed a nest full of young at St. Cloud on June 3.

DOWNY WOODPECKER. Young almost able to fly were found in a nest on June 18, at St. Cloud by the members of the T. S. Roberts Club. C. Hero saw a young and an adult bird together on July 17 at Duluth.

KINGBIRD. On June 15, 2 nests were found on Minnesota Point by C. Hero with 3 and 1 egg respectively. Other nests were found in Duluth by Hero and R. Norman. G. Rysgaard located a nest with 3 eggs at Sturgeon Lake on June 28. The last report came from Harrell and Longley who found 2 nests on July 5 in Ramsey Co.

CRESTED FLYCATCHER. The only record, a 5 egg nest, was found on June 12 at Grand Lake by the T. S. Roberts Club.

PHOEBE. R. M. Berthel found a nest of eggs at White Bear Lake on May 1; 4 young left it on July 13. On July 30, a nest holding 5 eggs was found at Lake Vermillion by K. Carlander. Dr. Lakela and C. Hero found 2 empty nests and 4 feathered young on July 4, at Sea Gull Lake, Cook Co.

LEAST FLYCATCHER. Many reports came in for this species. L. Hackl, C. Hero and LeRoy Haglund of Duluth all reported nests with young during the last week of June on the D. S. T. C. campus. Wynn Mahle found a nest of 4 eggs on June 15 at Burntside Lake. G. Rysgaard reported 2 nests with young at Sturgeon Lake, and the T. S. Roberts Club also reported 2 nests, each containing 2 eggs.

WOOD PEWEE. This flycatcher was observed nesting on but one occasion. At Sturgeon Lake G. Rysgaard found a nest of 5 eggs on June 13.

PRAIRIE HORNED LARK. Three young of this early nester were found by Ed. Maher on Minnesota Point on April 25. Harrell and Longley found a nest with 2 young in Ramsey Co. on June 24.

TREE SWALLOW. C. Hero saw 1 young out of nest on July 8, and 3 young out of nest, July 15, at Duluth.

BANK SWALLOW. C. Hero found a nest with an egg on May 19 near Renville and approximately 50 nests at Fond du Lac on July 15. Lakela, Graybeal, Elwell, Maher and Hero saw approximately 80 nests on July 7 at Cascade Falls in the Superior National Forest. At Sturgeon Lake on May 25, G. Rysgaard found a nest with 3-4 eggs.

BARN SWALLOW. The earliest report is that of Carol Nordby of Renville who saw a nest with young on May 12. C. Hero and K. Carlander observed several nests at Renville and Lake of the Woods respectively. Arnold Erickson turned in the latest report—4 small young in a nest at Rock Creek, Pine Co., on August 10.

CLIFF SWALLOW. Only three persons reported this species. At Caribou Lake, St. Louis Co., on June 30, C. Hero saw adults feeding young in 60-70 nests. G. Rysgaard located a similar number of nests with eggs and young at Sturgeon Lake on July 2. Don Mahle located and studied during July 2 colonies of several hundred nests each at Whitewater State Park, Winona County.

PURPLE MARTIN. K. Carlander found a nest with young on July 13, at Lake of the Woods. Several martin houses were occupied at Renville on May 30.

BLUE JAY. Milton Thompson observed a bird incubating her eggs on May 5, in Minneapolis.

BLACK-CAPPED CHICKADEE. Harrell and Longley found a nest with 7 eggs on May 18 in St. Paul; all hatched by May 25.

WHITE-BREASTED NUTHATCH. On May 16, Harrell and Longley found young in a bird house in St. Paul. C. Hero saw both the male and female carry food to a small hole in a tree at Renville on May 19, and G. Rysgaard found a young at Frontenac on June 8.

RED-BREASTED NUTHATCH. At Blackhoof, Carleton Co. on June 12, Dr. Lakela and C. Hero watched a male and female carry food to an opening in a tree.

HOUSE WREN. The T. S. Roberts Club found 3 occupied nests on June 18,

at St. Cloud. At Sturgeon Lake, G. Rysgaard watched a wren build her nest and begin incubating her eggs on June 12. Ruth Frisell (Duluth) found 3 young out of the nest on July 16.

SHORT-BILLED MARSH WREN. Arnold Erickson saw, at a marsh just south of Minneapolis on August 19, several young learning to fly.

CATBIRD. About 30 nests with eggs and young were reported by numerous people. The T. S. Roberts Club reported the first nests for June 5, with eggs. The latest report came from R. Norman and C. Hero at Duluth, who saw a nest with one young on July 12. Most of the reports centered around June 15.

BROWN THRASHER. Many nests reported. The average number of eggs per nest was 3. Some members reporting were: T. S. Roberst Club, D. S. T. C. Ornithology Class and Nature Study Class, C. Hero, Reuben Lentz, Jack Lentz, R. Norman and Martin Laakso. In addition L. Hackl, Mrs. Olin, Miss Severena Holmberg and H. Engstrom.

ROBIN. Many members reported many successful nests of the species. All areas of the state were represented.

WOOD THRUSH. Harrell and Longley found a nest with 3 eggs in a boxelder near Minneapolis on May 25. A. D. DuBois found a nest on May 27, near Lake Minnetonka, which contained 3 cowbird eggs and 3 thrush eggs.

VEERY. The 6 nests reported contained cowbird eggs. The early nest of the season was reported from Duluth by C. Hero on June 14; the latest nest by G. Rysgaard from Sturgeon Lake on June 28.

BLUEBIRD. Several nests were found by A. D. DuBois, T. S. Roberts Club, Harrell and Longley, Lester Carlander and K. Carlander. The earliest nest was noted at Lake Minnetonka on May 20 by A. D. DuBois; it contained 4 eggs.

CEDAR WAXWING. The Duluth area dominated the reports of the species: R. Norman, M. Laakso, Mrs. Olin, Dr. Lakela and H. Engstrom found nests. R. M. Berthel found a nest at Grand Portage, Cook Co., on August 13. The author observed several nesting pairs in tall Norway Pines at Sand Lake, Minnesota on June 30.

MIGRANT SHRIKE. A nest of this interesting bird was found near Avon on June 12, by the T. S. Roberts Club; it contained 4 small young.

STARLING. At Sturgeon Lake on June 12, G. Rysgaard watched an adult carry food to a nest. The T. S. Roberts Club observed a nest with young near Avon on June 19.

WARBLING VIREO. A nest containing 4 fresh eggs was seen on June 11, at St. Cloud by the T. S. Roberts Club.

YELLOW WARBLER. This is perhaps the most common of all the nesting warblers in Minnesota. Many nests were reported. Rysgaard, Laakso, Hero, the T. S. Roberts Club and H. Engstrom were the main contributors. The author had an interesting experience with a nest built in a raspberry patch, which was cut down by mistake. By carefully propping up the nest with some of the cut shrubs and replacing the 2 young in the nest the parents were able to feed and care for them 4 days longer—the time necessary for the young to leave the nest on their own accord. These birds were banded.

OVEN-BIRD. A nest with 3 eggs was reported by Miss Irene Johnson (Duluth) for June 9. Dr. Lakela and Dr. Graybeal saw a nest with 4 eggs at Sea Gull Lake, Cook Co. on July 6.

MOURNING WARBLER. A 3 egg nest was observed at Gunflint Lodge, Cook Co., by Dr. Lakela and Miss Elwell on July 7.

WESTERN MEADOWLARK. L. Carlander and K. Carlander found a nest with 5 young and 1 fertile egg at Nine Mile Creek, Hennepin Co., on June 2. A nest with 2 young and 2 cowbirds was found near Grand Lake on June 12 by the T. S. Roberts Club.

YELLOW-HEADED BLACKBIRD. Several nests were reported. The T. S. Roberts Club investigated 129 nests at

Clear Lake on May 22, which gave the following results: 45 nests with 4 eggs each; 9 nests with 3 eggs each; 5 nests with 2 eggs each; 20 nests with 1 egg each; and 50 nests either empty or in process of construction. Arnold Erickson and Dana Struthers saw 4 nests with eggs or young on June 2, at Minneapolis.

RED-WINGED BLACKBIRD. As is usual with this species many nests were observed. Members reporting were: T. S. Roberts Club, D. S. T. C. Ornithology class, A. D. DuBois, C. Hero, A. Erickson, D. Struthers, Rhoda Green, Mrs. Olin, and H. Engstrom.

BALTIMORE ORIOLE. An oriole was observed on its nest by the T. S. Roberts Club, June 3. G. Rysgaard saw 2 nests at Surgeon Lake on June 2 and 3; one held eggs, the other young birds. On July 12 in Duluth, E. Maher watched a young bird being fed out of the nest.

BREWER'S BLACKBIRD. Eleven nests were observed from June 6-12 by Harrell and Longley, built in willows along the Mississippi River flats (St. Paul). They contained from 4-5 eggs each.

BRONZED GRACKLE. Several records were sent in by C. Hero from Renville for the month of May. The T. S. Roberts Club, 2 nests for June 17. R. M. Berthel found an egg that had been laid in a banding trap.

SCARLET TANAGER. An incubating bird was found on a nest which held an undetermined number of eggs, at Sturgeon Lake on June 13, by G. Rysgaard.

CARDINAL. In Wirth Park (Mpls.) a nest with 3 eggs was found by M. Thompson on May 5, all of which hatched but were destroyed. A. D. DuBois found a nest at Minnetonka on May 16, which contained 2 eggs and 1 young bird.

ROSE-BREASTED GROSBEAK. Dr. Lakela and C. Hero found a nest on Skyline Parkway at Duluth on June 3; it held 1 egg.

DICKCISSEL. A nest with 2 eggs was found on June 19 by Harrell and Longley near St. Paul. The T. S. Roberts Club observed 2 nests, only one of which was successful. It contained 3 eggs and a cowbird's egg on June 25.

GOLDFINCH. A nest of the thistle bird was found with 5 eggs on September 5, near St. Cloud by the T. S. Roberts Club. Others were observed by H. Engstrom at Lake Sylvia on August 8.

VESPER SPARROW. G. Rysgaard and Don Sydow found 2 nests in the sand dunes, Anoka Co. One contained 1 cowbird and the other 3 eggs on May 22. Dr. Lakela reported a nest of 4 eggs for May 27. The latest record was submitted by W. J. Breckenridge and R. M. Berthel, who found a 2 egg nest in Ottertail County on August 3.

CHIPPING SPARROW. This sparrow was reported frequently. H. Engstrom found 3 eggs on May 17. The nest was observed until the young, which were banded, left. Rysgaard, Hero, D. S. T. C. ornithology class, T. S. Roberts Club and A. D. DuBois also sent in records.

CLAY-COLORED SPARROW. Three nests with eggs were found by the T. S. Roberts Club on June 5, at St. Cloud.

WHITE-THROATED SPARROW. G. Rysgaard located a nest with 4 eggs on June 29, at Sturgeon Lake.

SONG SPARROW. Many nests were observed, the earliest by C. Hero on June 4, at Duluth. It held 5 eggs. The latest nest was reported by Sister Gervase, College of St. Scholastica, Duluth—4 young in a nest on July 15. *Minnesota Museum of Natural History, University of Minn.*