

Common Mallard. Anas platyrhynchos platyrhynchos. Considerable numbers of these birds were present throughout December. On December 12, ¹⁹³³ a flock resting on the ice on Trumbull Lake, Clay County, was estimated to contain at least 25,000 individuals. On December 15, while all the vegetation was covered with sleet, there was a huge concentration of Mallards on Trumbull and Round Lakes. By noon it had warmed somewhat and the birds started flying to the cornfields. Gerald B. Spawn and I estimated that the flocks contained between 75,000 and 80,000 birds.

With the advent of mechanical corn-pickers within recent years the Mallards have remained well into the winter, feeding on the corn which is shelled and lost by the picker. Most of the waterfowl in the Ruthven region rest in the Round Lake Waterfowl Refuge; the Mallards, Pintails, and geese feeding regularly in cornfields as far as 20 and 24 miles. Upon one occasion two flocks were followed independently by observers in automobiles. Both flocks travelled a distance of 81 air-miles and were found to be feeding with a great number of other ducks in a 600 acre cornfield six miles southeast of Sioux Falls, South Dakota. It is probable that each bird made the round trip twice each day. ^{TP} When the temperature took a sudden drop (to -26 degrees) on December 28, ¹⁹³³ all of the Mallards left this region. During the two previous winters flocks of one to five thousand birds remained on the Round Lake ^{Refuge.} Preserve. Unless the temperature was extremely low the birds were able to keep a small water-hole open by the constant milling about in the water. The ice at the edge of these holes was found to be

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nearly three inches thick. Following the hunting season a search was made for crippled ducks in the 450 acre Round Lake Waterfowl Refuge. We found 18 dead Mallards and 10 live cripples, as well as 10 others which were frozen in ^{the} ice to such an extent that they could not be secured. All of the 28 birds were examined by ~~Mr.~~ Logan J. Bennett of the ~~Wild-life Research Division~~ ^{Zoology Department}, Iowa State College, and each was found to have been hit by some shot. About the 1st of January, 1934, Gerald B. Spawn and I again visited the lake. This trip was following the cold wave of December 28 when the temperature dropped to -26 degrees. The count of Mallards frozen in the ice this time was 13, and 47 dead birds were picked up. 14 of these were found along the highway either on their way ^{to} or returning from the cornfield.

Red-legged Black Duck. Anas rubripes rubripes. A female specimen of rubripes was found dead at the north end of Lost Island Lake, Palo Alto County on December 10, ^{1933.} It was preserved for the Iowa State College collection by Logan J. Bennett. Several Black Ducks were seen ^{with} in the flocks of Mallards on West Okoboji, December 10. Twelve or fifteen were seen with the Mallards on Trumbull Lake, December 12. One was noted at the same place December 15.

Pintail. Dafila acuta tzitzihoa. The only early winter record was of a crippled male caught by Logan J. Bennett on Round Lake, December 10, ^{1933.} My first record of earliest ^{spring} arrivals was of a flock of 33, on the south end of Lost Island Lake, Clay County, March 1, ^{1934.} During the next three weeks, this bird

was by far the most numerous one seen; certainly several hundred thousand were present in the four counties.

^{triple space} Canvas-back. ^v Nyroca valisineria. A female was noted in the open water of Round Lake, December 15, ^{1933.} On December 17 it was caught by Gerald B. Spawn and myself. ^{of its} Both legs contained pellets of shot. It was preserved for the Iowa State College collection by Logan J. Bennett. The earliest spring migrants were noted on Elk Lake, Clay County, March 20, ^{1934,} and three days later, a flock of 14 was seen on Lost Island Lake.

^{duck.} Lesser Scaup [^] Nyroca affinis. Two birds, resting on Round Lake, December 15, ^{1933,} were the last of the fall migrants. The earliest migrants were seen March 20, ^{1934,} on Elk Lake, Clay County.

American Golden-eye. ^u Glancionetta clangula americana. A flock of ^{one} ~~A~~ hundred was seen on West Okoboji, Dickinson County, December 8, ^{1933,} and about twenty-five were noted there on December 10. The earliest spring migrants (two) were noted on Elk Lake, Clay County, March 20, ^{1934.}

American Merganser. Mergus merganser americanus. A flock of about twenty-five in low plumage was observed on West Okoboji, Dickinson County, December 8, ^{1933,} and on December 10 at least a hundred were seen at the same place. A few were resting on Trumbull Lake, Clay County, December 12, and one was observed there on the 15th. The earliest spring migrants were nine seen on Elk Lake, Clay County, March 20, ^{1934.}

Anatidae.

[^] The following species of waterfowl, unobserved early in the winter, were first noted in Clay County on March 20, ^{1934:}

Green-winged Teal, 4; Redhead, 204; Ring-necked Duck, 25; Blue Goose, 400+; Snow Goose, 1; White-fronted Goose, 5; Canada Goose, 11. The first Shovellers (three) were noted March 23, and the first Baldpates (two) were seen on March 25.

Marsh Hawk. Circus hudsonius. One was seen in Palo Alto County, December 11, ¹⁹³³ and one was observed in Kossuth County, January 24, ¹⁹³⁴. Several birds were noted between February 7 and 12, which might indicate that date as the beginning of a northward migration.

^{American} Rough-legged Hawk. Buteo lagopus s. johannis. ^{not so much space} A fairly common ^{win} winter resident. The largest number noted, was on December 11, ¹⁹³³ when six were seen in Palo Alto County, during a drive of about sixty miles.

Sparrow Hawk. Falco sparverius sparverius. An adult male was seen east of Spencer, Clay County, on January 5, ¹⁹³⁴. None was noted thereafter until March 19.

^{Prairie falcon} →
(see over) Duck Hawk. Falco peregrinus anatum. An adult was flushed from the top of a haystack in "Barringer's Slough" three miles west of Ruthven, Clay County, December 12, ¹⁹³³. It then alighted beside a frozen, but partly eaten Mallard drake, which was lying nearby. After a leisurely study of the bird with binoculars an unsuccessful attempt was made to drive closer to it.

^{Prairie falcon} →
(over) Greater Prairie Chicken. Tympanuchus cupido americanus. Flocks of thirty, forty, and ninety birds were seen in Clay

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March 23, and the first Baldpates (two) were seen on March 25.

Prairie Falcon. Falco mexicanus. An extremely large individual
undoubtedly a female, was seen by J. J. Bennett and
the writer near Union Slough, northeast of Butte, Rosebud
county, January 11, 1934. The color and moult marks
were noted as the bird perched on a fence post.

Another was seen to excellent advantage by the
writer on February 22, 1934. It was watched as it
darted over Whitford Slough three miles west of Ruthven,
Clay County.

Duck Hawk. Falco peregrinus anatum. An adult was flushed
from the top of a haystack in "Barringer's Slough" three miles
west of Ruthven, Clay County, December 12. It then alighted
beside a frozen, but partly eaten Mallard drake, which was
lying nearby. After a leisurely study of the bird with
binoculars an unsuccessful attempt was made to drive closer
to it.

Greater Prairie Chicken. Tympanuchus cupido americanus.
Flocks of thirty, forty, and ninety birds were seen in Clay

County, November 25, ^{1933.} Birds of this species were noted in Clay, Palo Alto, Emmet, and Dickinson counties throughout the winter, the maximum number being 240 in Clay County, December 14. Two flocks totalling 76 were noted on April 6, ^{1934.}


The Prairie Chicken may breed in these counties at the present time although actual evidence is lacking.

Ring-necked Pheasant. Phasianus colchicus torquatus. This introduced species is a common resident. A concentrated wintering flock, totalling at least three hundred birds was seen at Twelve Mile Lake in Emmet County, January 15, ^{1934.} Reports of much larger concentrations were received; the number of Pheasants at Ryan Lake in Emmet County being estimated at three thousand.

Eastern Bob-white. Collinus virginianus virginianus. In the field experience of the writer the Bob-white is a decidedly uncommon resident. One flock of eighteen was seen north of Medium Lake, Palo Alto County, February 28, ^{1934.} Gerald B. Spawn reported one or two small coveys which he flushed several times during the winter near Lost Island Lake, Clay County.

European Partridge. Perdix perdix perdix. An uncommon resident. Wintering flocks were noted less frequently than were the Prairie Chickens. The first mated pair was seen in Clay County, February 15, ^{1934.} On January 18, I found a "Hungarian" Partridge, east of Estherville, Emmet County, which had flown into a telephone wire with such force that its head had been snapped off. The specimen is preserved in the writer's collection.

American Coot. ^FFulica americana. A flock of 175 was noted
on West Okoboji Lake, Dickinson County, December 8, ^{1933,} and
probably the same number was present two days later. Ten
were seen on Round Lake Clay County, December 15, and thirteen
were noted there on the 17th, ~~frozen in the ice.~~ The earliest
spring migrants were seen on Elk Lake, Clay County, March 20, ^{1934.}



Screech Owl. (Otus asio). ++

Great Horned Owl. (Bubo virginianus virginianus). ++ None was noted during the winter until a nest was found on April 11, 1934, located on the south side of West Swan Lake, Emmet County. The nest, located about 30 feet up in a burr oak, contained one downy young.

Montana Horned Owl. (Bubo virginianus occidentalis). ++ A single ^g Gray Horned Owl, undoubtedly of this subspecies, was found in the woods at the east end of West Swan Lake, Emmet County, January 15, 1934. Each attempt to collect this bird was thwarted by noisy flocks of crows mobbing the owl.

Barred Owl. (Strix varia). ++ This bird, considered a permanent resident in all parts of the state, was not noted in this area.

Long-eared Owl. (Asio wilsonianus). ++ Except for a bird which had been dead some time found hanging on a fence in Clay County, none was seen except on February 10, 1934 when one was seen near Westfield, Plymouth County.

Short-eared Owl. (Asio flammeus). ++ Eight were seen on December 11, 1933 and single individuals were noted irregularly thereafter until January 5, 1934. Apparently this bird was absent from early January until late in February.

Eastern Hairy Woodpecker. (Dryobates villosus villosus). ++
^{It was found} present during the winter in numbers equal with the ^{white-breasted} Nuthatch.

The Downy Woodpecker was found to be twice as numerous as either and the Chickadee four times as numerous. A single male collected at the mouth of Plum Creek in Kossuth County, January 24, 1934 proved to be villosus.

Northern Downy Woodpecker, (Dryobates pubescens medianus)^{white-breasted}. ++
This species was found to be twice as numerous as the Nuthatch and Hairy Woodpecker ^{during the winter.}

Horned Lark, (Otocoris alpestris)⁺. ++ In the "Revised List of the Birds of Iowa" 1933, p. 96, the writer expressed the view that the bulk of the wintering birds are of the race hoysi; praticola being absent or nearly so until the middle of February.

With the view in mind of testing this hypothesis a series of 25 specimens of Horned Lark was secured between November 25, 1933 and March 8, 1934 in Kossuth, Emmet, Clay, Pocahontas, O'Brien and Sioux counties. The identification of these specimens was confirmed by Prof. Myron H. Swenk of Lincoln, Nebraska.

Eight specimens, all males, proved to be hoysi. These were collected as follows: Clay County, January 5, 1934, one from ^aflock of 40 (five others collected were praticola); Emmet County, January 15, 1934, one from ^aflock of 30 (another collected was praticola); Emmet County, January 18, 1934, one; Kossuth County, January 23, 1934, two from a flock of 30 (two others were praticola); Clay County, one each on February 2 and 11, 1934; Pocahontas County, March 8, 1934, one.

Seventeen specimens ^{of praticola}, all except one being males, were collected as follows: Clay County, November 25, one and December 15, 1933, two; Clay County, January 5, 1934, five, mentioned

above; Emmet County, January 15, one, mentioned above, January 18, 1934, one; Kossuth County, January 23, 1934, two, mentioned above, January 24, 1934, one of six or eight seen, February 6, 1934, one of a pair; O'Brien County, February 10, 1934, one of a pair; Sioux County, February 11, 1934, a single, singing bird; Clay County, February 17, 1934, one found dead on the road.

From these limited data we must conclude that, at least during winters as comparatively mild as was the one of 1933-34, praticola is present in mixed flocks with hoyti. Except for the five to one ratio of January 5, the two races appear to be approximately in equal numbers. By February 1 praticola were paired off and thereafter flocks were apt to consist principally of hoyti.

Blue Jay, (Cyanocitta cristata).++A decidedly uncommon winter resident. A maximum of six were seen on December 15, 1933.

American Magpie, (Pica pica hudsonia).++A flock of 13 birds was seen two miles south of Westfield, Plymouth County on February 10, 1934 by Logan J. Bennett and the writer. As many as 25 had been seen there for several weeks. The next day seven Magpies were seen in Oak Grove State Park, north of Hawarden, Sioux County. The writer secured one specimen^{near there} which is now in his collection. From 30 to 40 birds had been reported present. Residents reported that a few came into the valley of the Big Sioux River every winter.

Crow, (Corvus brachyrhynchos).++Comparatively few of these

birds were present during the winter, a maximum of not over 15 being seen at any one time.

Chickadee. (Penthestes atricapillus). ++ A fairly common winter resident. A few of these birds were seen on nearly every field trip. The writer estimated them as twice as numerous as the Downy Woodpecker, and four times as abundant as the Nuthatch and Hairy Woodpecker.

White-breasted Nuthatch, (Sitta carolinensis). ++ An uncommon winter resident.

Brown Creeper, (Certhia familiaris americana). -- A decidedly uncommon winter resident. Two birds were collected near West Swan Lake in Emmet County, January 15, 1934. One was noted near the mouth of Plum Creek in Kossuth County, January 24, 1934. One was seen in Oak Grove State Park, Sioux County, February 11, 1934.

Northern Shrike, (Lanius borealis). ++ One ^{was} seen five miles northeast of Pocahontas, Pocahontas County, December 21, 1933. Another ^{was} noted north of Estherville, Emmet County, February 15, 1934. The writer was successful in collecting neither of these specimens for subspecific determination.

Starling, (Sturnus vulgaris vulgaris). ++ One was collected by the writer from a flock of 6 Starlings and 30 Grackles, four miles northwest of Ruthven, Clay County, December 9, 1933. A flock of 9 Starlings was seen at the same place on December 13.

A single bird was seen by the writer at Union Slough, near Burt, Kossuth County, January 23, 1934. *add.*

Western Meadowlark, (Sturnella neglecta).++One was seen near Lake Center, Clay County on January 21, 1934. None others were seen until March 16.

Red-winged Blackbird, (Agelaius phaeniceus).++